ASPEN AEROGELS INC

FORM S-1/A
(Securities Registration Statement)

Filed 05/14/14

Address	30 FORBES ROAD BUILDING B NORTHBOROUGH, MA 01532
Telephone	5086911111
CIK	0001145986
SIC Code	5030 - Lumber And Other Construction Materials
Fiscal Year	12/31

As filed with the Securities and Exchange Commission on May 14, 2014

Registration No. 333-195523

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Amendment No. 1 to

Form S-1

REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

Aspen Aerogels, Inc.

(Exact name of Registrant as specified in its charter)

Delaware	**3990**	**04-3559972**
(State or other jurisdiction of incorporation or organization)	*(Primary Standard Industrial Classification Code Number)*	*(I.R.S. Employer Identification Number)*

30 Forbes Road, Building B
Northborough, Massachusetts 01532
(508) 691-1111
(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

Donald R. Young
President and Chief Executive Officer
Aspen Aerogels, Inc.
30 Forbes Road, Building B
Northborough, Massachusetts 01532
(508) 691-1111
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Sahir Surmeli, Esq. **Thomas R. Burton, III, Esq.** **John T. Rudy, Esq.** **Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.** **One Financial Center** **Boston, Massachusetts 02111** **(617) 542-6000**	**John F. Fairbanks** **Vice President, Chief Financial Officer and Treasurer** **Aspen Aerogels, Inc.** **30 Forbes Road, Building B** **Northborough, Massachusetts 01532** **(508) 691-1111**	**Roxane F. Reardon, Esq.** **Simpson Thacher & Bartlett LLP** **425 Lexington Avenue** **New York, New York 10017** **(212) 455-2000**

Approximate date of commencement of proposed sale to the public: As soon as practicable after this registration statement becomes effective.

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933 as amended (the "Securities Act"), check the following box. ☐

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ☐	Accelerated filer ☐	Non-accelerated filer ☑ (Do not check if a smaller reporting company)	Smaller reporting company ☐

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

EXPLANATORY NOTE

This Amendment No. 1 to the Registration Statement on Form S-1 (the "Form S-1") of Aspen Aerogels, Inc. is being filed solely for the purpose of adding Exhibits to the original filing of the Form S-1, filed on April 28, 2014. Other than the addition of exhibits and corresponding changes to the exhibit index and signature page, the remainder of the Form S-1 is unchanged. Accordingly, the prospectus that forms a part of the Form S-1 is not reproduced in this Amendment No. 1. This Amendment No. 1 does not reflect events occurring after the filing date of the original Form S-1, or modify or update the disclosures therein in any way other than as required to reflect the amendment set forth below.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. ***Other Expenses of Issuance and Distribution.***

The following table indicates the expenses to be incurred in connection with the offering described in this registration statement, other than underwriting discounts and commissions, all of which will be paid by us. All of the amounts are estimated except the SEC registration fee, the FINRA filing fee and the NYSE listing fee.

	Amount to be paid
SEC registration fee	$ 11,109
NYSE listing fee	*
FINRA filing fee	13,438
Printing and mailing	*
Legal fees and expenses	*
Accounting fees and expenses	*
Blue sky fees and expenses	*
Transfer agent and registrar	*
Miscellaneous	*
Total	$ *

* *To be provided by amendment.*

Item 14. ***Indemnification of Directors and Officers.***

Our restated certificate of incorporation and restated by-laws that will be effective upon completion of the offering provide that each person who was or is made a party or is threatened to be made a party to or is otherwise involved (including, without limitation, as a witness) in any action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he or she is or was one of our directors or officers or is or was serving at our request as a director, officer or trustee of another corporation, or of a partnership, joint venture, trust or other enterprise, including service with respect to an employee benefit plan, whether the basis of such proceeding is alleged action in an official capacity as a director, officer or trustee or in any other capacity while serving as a director, officer or trustee, shall be indemnified and held harmless by us to the fullest extent authorized by the Delaware General Corporation Law against all expense, liability and loss (including attorneys' fees, judgments, fines, ERISA excise taxes or penalties and amounts paid in settlement) reasonably incurred or suffered by such.

Section 145 of the Delaware General Corporation Law permits a corporation to indemnify any director or officer of the corporation against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with any action, suit or proceeding brought by reason of the fact that such person is or was a director or officer of the corporation, if such person acted in good faith and in a manner that he or she reasonably believed to be in, or not opposed to, the best interests of the corporation, and, with respect to any criminal action or proceeding, if he or she had no reasonable cause to believe his or her conduct was unlawful. In a derivative action (i.e., one brought by or on behalf of the corporation), indemnification may be provided only for expenses actually and reasonably incurred by any director or officer in connection with the defense or settlement of such an action or suit if such person acted in good faith and in a manner that he or she reasonably believed to be in, or not opposed to, the best interests of the corporation, except that no indemnification shall be provided if such person shall have been adjudged to be liable to the corporation, unless and only to the extent that the Delaware Chancery Court or the court in which the action or suit was brought shall determine that such person is fairly and reasonably entitled to indemnity for such expenses despite such adjudication of liability.

Pursuant to Section 102(b)(7) of the Delaware General Corporation Law, Article VI of our restated certificate of incorporation eliminates the liability of a director to us or our stockholders for monetary damages for such a breach of fiduciary duty as a director, except for liabilities arising:

- from any breach of the director's duty of loyalty to us or our stockholders;
- from acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;
- under Section 174 of the Delaware General Corporation Law; and
- from any transaction from which the director derived an improper personal benefit.

We have entered into indemnification agreements with our non-employee directors and will enter into similar agreements with certain officers, in addition to the indemnification provided for in our restated certificate of incorporation and restated by-laws, and intend to enter into indemnification agreements with any new directors and executive officers in the future. We have purchased and intend to maintain insurance on behalf of any person who is or was a director or officer against any loss arising from any claim asserted against him or her and incurred by him or her in any such capacity, subject to certain exclusions.

The foregoing discussion of our restated certificate of incorporation, restated by-laws, indemnification agreements and Delaware law is not intended to be exhaustive and is qualified in its entirety by such restated certificate of incorporation, restated by-laws, indemnification agreements or law.

Reference is made to our undertakings in Item 17 with respect to liabilities arising under the Securities Act. Reference is also made to the form of underwriting agreement filed as Exhibit 1.1 to this registration statement for the indemnification agreements between us and the underwriters.

Item 15. ***Recent Sales of Unregistered Securities.***

Set forth below is information regarding shares of common stock, convertible notes and warrants issued, and options granted, by us within the past three years that were not registered under the Securities Act. Also included is the consideration, if any, received by us for such shares, convertible notes, warrants and options, and information relating to the section of the Securities Act, or rule of the Securities and Exchange Commission, under which exemption from registration was claimed. The following share and per share amounts reflect the share combination that occurred on August 20, 2013 in which every 10 shares of our common stock outstanding were combined into one share of our common stock and every 10 shares of our preferred stock outstanding were combined into one share of our preferred stock.

Issuances of Stock, Convertible Notes and Warrants

A. On March 17, 2011, one of our principal stockholders exercised warrants, issued in May 2001, to purchase 98 shares of our common stock at an exercise price of $0.030 per share. On August 1, 2011, one of our early investors exercised warrants, issued in March 2005 and June 2008, to purchase 138 shares of our common stock at an exercise price of $0.030 per share.

B. On June 1, 2011, we issued $26.0 million in aggregate principal amount of 8% convertible notes due 2016 to nine accredited investors. In accordance with their terms, the convertible notes have been accruing interest since the date of issuance. The principal amount plus accrued and unpaid interest of the convertible notes will automatically convert upon the closing of the offering made hereby into a number of shares of our common stock equal to the quotient obtained by dividing the unpaid principal amount of the convertible notes plus interest accrued but unpaid thereon, by 62.5% of the initial public offering price. Assuming the convertible notes convert on , 2014 and an initial public offering price of $ per share, which is the mid-point of the price range set forth on the cover page of the prospectus included in this registration statement, the $26.0 million in principal amount plus accrued interest on the outstanding convertible notes will convert into approximately shares of our common stock.

C. On June 14, 2011, we issued $4.0 million in aggregate principal amount of convertible notes to four accredited investors on the same terms as those described above in Item B. Assuming the convertible notes convert on , 2014 and an initial public offering price of $ per share, which is the mid-point of the price range set forth on the cover page of the prospectus included in this registration statement, the $4.0 million in principal amount plus accrued interest on the outstanding convertible notes will convert into approximately shares of our common stock.

D. On December 6, 2011, we issued $15.0 million in aggregate principal amount of 8% convertible notes due 2016 to 17 accredited investors. In accordance with their terms, the convertible notes have been accruing interest since the date of issuance. The principal amount plus accrued and unpaid interest of the convertible notes will automatically convert upon the closing of the offering made hereby into a number of shares of our common stock equal to the quotient obtained by dividing the unpaid principal amount of the convertible notes plus interest accrued but unpaid thereon, by 62.5% of the initial public offering price. Assuming the convertible notes convert on , 2014 and an initial public offering price of $ per share, which is the mid-point of the price range set forth on the cover page of the prospectus included in this registration statement, the $15.0 million in principal amount plus accrued interest on the outstanding convertible notes will convert into approximately shares of our common stock.

E. On March 1, 2012, we issued $0.8 million in aggregate principal amount of convertible notes to 29 accredited investors on the same terms as those described above in Item D (but with $0.3 million maturing in 2014). Assuming an initial public offering price of $ per share, which is the mid-point of the price range set forth on the cover page of the prospectus included in this registration statement, the $0.8 million in principal amount plus accrued interest on the outstanding convertible notes will convert into approximately shares of our common stock.

F. On June 11, 2012, we issued $9.6 million in aggregate principal amount of 8% convertible notes due 2016 to 18 accredited investors. In accordance with their terms, the convertible notes have been accruing interest since the date of issuance. The principal amount plus accrued and unpaid interest of the convertible notes will automatically convert upon the closing of the offering made hereby into a number of shares of our common stock equal to the quotient obtained by dividing the unpaid principal amount of the convertible notes plus interest accrued but unpaid thereon, by 62.5% of the initial public offering price. Assuming the convertible notes convert on , 2014 and an initial public offering price of $ per share, which is the mid-point of the price range set forth on the cover page of the prospectus included in this registration statement, the $9.6 million in principal amount plus accrued interest on the outstanding convertible notes will convert into approximately shares of our common stock.

G. On July 17, 2012, we issued $0.6 million in aggregate principal amount of convertible notes to 26 accredited investors on the same terms as those described above in Item F (but with less than $0.1 million maturing in 2014). Assuming the convertible notes convert on , 2014 and an initial public offering price of $ per share, which is the mid-point of the price range set forth on the cover page of the prospectus included in this registration statement, the $0.6 million in principal amount plus accrued interest on the outstanding convertible notes will convert into approximately shares of our common stock.

H. On September 26, 2012, we issued $9.5 million in aggregate principal amount of convertible notes to seven accredited investors on the same terms as those described above in Item F. Assuming the convertible notes convert on , 2014 and an initial public offering price of $ per share, which is the mid-point of the price range set forth on the cover page of the prospectus included in this registration statement, the $9.5 million in principal amount plus accrued interest on the outstanding convertible notes will convert into approximately shares of our common stock.

I. On October 5, 2012, we issued $0.5 million in aggregate principal amount of convertible notes to two accredited investors on the same terms as those described above in Item F. Assuming the convertible notes

convert on , 2014 and an initial public offering price of $ per share, which is the mid-point of the price range set forth on the cover page of the prospectus included in this registration statement, the $0.5 million in principal amount plus accrued interest on the outstanding convertible notes will convert into approximately shares of our common stock.

J. On November 28, 2012, we issued $4.0 million in aggregate principal amount of convertible notes to three accredited investors on the same terms as those described above in Item F. On March 28, 2013 and May 6, 2013, these notes were cancelled in exchange for certain convertible notes and warrants described below in Items L, M, N and O.

K. On January 9, 2013, we issued $3.5 million in aggregate principal amount of convertible notes to 24 accredited investors on the same terms as those described above in Item F. On March 28, 2013 and May 6, 2013, these notes were cancelled in exchange for certain convertible notes and warrants described below in Items L, M, N and O.

L. On March 28, 2013, we issued $12.0 million in aggregate principal amount of 8% convertible notes due 2016 to 11 accredited investors. Of the $12.0 million in aggregate principal amount of convertible notes we issued, we issued $7.0 million in aggregate principal amount of convertible notes in exchange for convertible notes that we previously issued described above in Items J and K and $5.0 million in aggregate principal amount of convertible notes in exchange for cash. In accordance with their terms, the convertible notes have been accruing interest since the date of issuance. The principal amount plus accrued and unpaid interest of the convertible notes will automatically convert upon the closing of the offering made hereby into a number of shares of our common stock equal to the quotient obtained by dividing the unpaid principal amount of the convertible notes plus interest accrued but unpaid thereon, by 62.5% of the initial public offering price. Assuming the convertible notes convert on , 2014 and an initial public offering price of $ per share, which is the mid-point of the price range set forth on the cover page of the prospectus included in this registration statement, the $12.0 million in principal amount of the outstanding convertible notes will convert into approximately shares of our common stock.

M. In connection with the issuance of the convertible notes described above in Item L, on March 28, 2013, we issued warrants to purchase an aggregate of 46,253,855 shares of Series C preferred stock to 11 accredited investors. The warrants are exercisable at an exercise price of $0.0001 per share and are exercisable until March 28, 2023. Warrants to purchase an aggregate of 20,000 shares of Series C preferred were exercised on May 9, 2013 and May 13, 2013 as described below in Item P. We assume that the remainder of these warrants will be exercised in connection with this offering. Assuming all of these warrants are exercised for cash immediately prior to the consummation of this offering, and together with the conversion of the 20,000 shares Series C preferred stock previously issued upon the exercise of the warrants, the holders of the warrants will receive an aggregate of 46,253,855 shares of our common stock.

N. On May 6, 2013, we issued $10.5 million in aggregate principal amount of convertible notes to 43 accredited investors on the same terms as those described above in Item L. Of the $10.5 million in aggregate principal amount of convertible notes we issued, we issued $0.5 million in aggregate principal amount of convertible notes in exchange for convertible notes that we previously issued described above in Item K and $10.0 million in aggregate principal amount of convertible notes in exchange for cash. Assuming the convertible notes convert on , 2014 and an initial public offering price of $ per share, which is the mid-point of the price range set forth on the cover page of the prospectus included in this registration statement, the $10.5 million in principal amount plus accrued interest on the outstanding convertible notes will convert into approximately shares of our common stock.

O. In connection with the issuance of the convertible notes described above in Item N, on May 6, 2013, we issued warrants to purchase an aggregate of 40,764,332 shares of Series C preferred stock to 43 accredited investors. The warrants are exercisable at an exercise price of $0.0001 per share and are exercisable until

March 28, 2023. We assume that all of these warrants will be exercised in connection with this offering. Assuming all of these warrants are exercised for cash immediately prior to the consummation of this offering, the holders of the warrants will receive an aggregate of 40,764,332 shares of our common stock.

P. On May 9, 2013 and May 13, 2013, we issued an aggregate of 20,000 shares of Series C preferred stock upon the exercise of warrants to purchase Series C preferred stock described above in Item M to two accredited investors.

Q. From April 15, 2011 through April 15, 2014, we issued an aggregate of 36,693 shares of our common stock to certain of our employees and consultants upon the exercise of stock options issued under the 2001 equity incentive plan, as amended.

Stock Option Grants

From April 15, 2011 through April 15, 2014, we granted stock options under our 2001 equity incentive plan, as amended, to purchase an aggregate of 80,112,212 shares of common stock, net of forfeitures, at a weighted-average exercise price of $0.100 per share, to certain of our employees, consultants and directors.

Securities Act Exemptions

The offers, sales and issuances of the securities described above were exempt from registration under the Securities Act in reliance on Section 4(a)(2) of the Securities Act and Rule 506 of Regulation D.

The grants of stock options described above under "— Stock Option Grants" were exempt from registration under the Securities Act in reliance on Rule 701 promulgated under the Securities Act as offers and sales of securities under compensatory benefit plans and contracts relating to compensation in compliance with Rule 701. Each of the recipients of securities in any transaction exempt from registration either received or had adequate access, through employment, business or other relationships, to information about us.

All certificates representing the securities issued in the transactions described in this Item 15 included appropriate legends setting forth that the securities had not been offered or sold pursuant to a registration statement and describing the applicable restrictions on transfer of the securities. There were no underwriters employed in connection with any of the transactions set forth in this Item 15.

Item 16. ***Exhibits and Financial Statement Schedules.***

(a) See the Exhibit Index on the page immediately preceding the exhibits for a list of exhibits filed as part of this registration statement on Form S-1, which Exhibit Index is incorporated herein by reference.

(b) Financial Statement Schedules

All schedules have been omitted because they are not required or are not applicable or the required information is shown in the financial statements or notes thereto.

Item 17. ***Undertakings***

(a) The undersigned registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreement certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

(b) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the provisions described under Item 14 above, or

otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

(c) The undersigned registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act, the Registrant certifies that it has duly caused this Amendment No. 1 to this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Northborough, Massachusetts, on May 14, 2014.

ASPEN AEROGELS, INC.

By: **/s/ Donald R. Young**
Donald R. Young
President and Chief Executive Officer

Pursuant to the requirements of the Securities Act, this Amendment No. 1 to this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Donald R. Young **Donald R. Young**	President, Chief Executive Officer and Director (principal executive officer)	May 14, 2014
/s/ John F. Fairbanks **John F. Fairbanks**	Vice President, Chief Financial Officer and Treasurer (principal financial officer and principal accounting officer)	May 14, 2014
* **Mark L. Noetzel**	Chairman of the Board	May 14, 2014
* **P. Ramsay Battin**	Director	May 14, 2014
* **Robert M. Gervis**	Director	May 14, 2014

Signature	Title	Date
*	Director	May 14, 2014
Craig A. Huff		
*	Director	May 14, 2014
Steven R. Mitchell		
*	Director	May 14, 2014
David J. Prend		
*	Director	May 14, 2014
Richard F. Reilly		

*By: **/s/ Donald R. Young** May 14, 2014

Donald R. Young, Attorney-in-fact

EXHIBIT INDEX

Exhibit number	Description of Exhibit
1.1*	Form of underwriting agreement.
3.1.1+	Fourth amended and restated certificate of incorporation of the Registrant, as amended.
3.1.2*	Certificate of amendment to the fourth amended and restated certificate of incorporation, as amended, of the Registrant.
3.2	Form of restated certificate of incorporation of the Registrant to be filed with the Secretary of State of the State of Delaware upon completion of this offering.
3.3+	By-laws of the Registrant, as amended.
3.4	Form of restated by-laws of the Registrant to be effective upon completion of this offering.
4.1	Form of common stock certificate.
4.2+	Form of warrant to purchase common stock issued by the Registrant in connection with 2004 and 2005 financing arrangements, as amended and restated.
4.3+	Form of warrant to purchase common stock issued by the Registrant in connection with the 2005 equity financing, as amended and restated.
4.4+	Form of warrant to purchase common stock issued by the Registrant in connection with the 2008 reorganization.
4.5+	Form of warrant to purchase common stock issued by the Registrant in connection with the 2008 financing.
4.6+	Form of warrant to purchase common stock issued by the Registrant in connection with the 2010 subordinated note and warrant financing.
4.7	Form of warrant to purchase Series C preferred stock, as amended, issued by the Registrant in connection with the 2013 convertible note and warrant financing.
4.8+	Sixth amended and restated registration rights agreement, dated as of June 11, 2012, by and among the Registrant and the investors named therein, as amended.
5.1*	Opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., counsel to the Registrant, with respect to the legality of securities being registered.
10.1.1@+	2001 equity incentive plan, as amended.
10.1.2@+	Form of incentive stock option agreement granted under 2001 equity incentive plan, as amended.
10.1.3@+	Form of 2013 incentive stock option agreement for options issued in exchange for the forfeiture of options granted under 2001 equity incentive plan, as amended.
10.1.4@+	Form of 2013 performance-based incentive stock option agreement granted under 2001 equity incentive plan, as amended.
10.1.5@+	Form of non-qualified stock option agreement granted under 2001 equity incentive plan, as amended.
10.1.6@+	Form of 2013 non-qualified stock option agreement for options issued in exchange for the forfeiture of options granted under 2001 equity incentive plan, as amended.
10.1.7@+	Form of 2013 performance-based non-qualified stock option agreement granted under 2001 equity incentive plan, as amended.
10.1.8@+	Form of 2013 independent director stock option agreement for options issued in exchange for the forfeiture of options granted under 2001 equity incentive plan, as amended.
10.1.9@+	Form of 2013 performance-based independent director stock option agreement granted under 2001 equity incentive plan, as amended.
10.2.1@	Form of 2014 employee, director and consultant equity incentive plan.
10.2.2@	Form of stock option agreement under 2014 employee, director and consultant equity incentive plan.
10.2.3@	Form of restricted stock agreement under 2014 employee, director and consultant equity incentive plan.
10.3+	Multi-tenant industrial net lease, dated August 20, 2001, by and between the Registrant and Cabot II — MA1M03, LLC (as successor landlord to TMT290 Industrial Park, Inc.), as amended.
10.4+	Loan and security agreement by and between the Registrant and Silicon Valley Bank, dated as of March 31, 2011, as amended.

Exhibit number	Description of Exhibit
10.5+	Form of subordinated note issued by the Registrant in the 2010 subordinated note and warrant financing.
10.6+	Form of convertible note issued by the Registrant in the June 2011 convertible note financing, as amended.
10.7+	Form of convertible note issued by the Registrant in the December 2011 and March 2012 convertible note financing, as amended.
10.8+	Form of convertible note issued by the Registrant in the June 2012, July 2012, September 2012, October 2012, November 2012 and January 2013 convertible note financing, as amended.
10.9+	Form of convertible note issued by the Registrant in the March 2013 and May 2013 convertible note financing.
10.10@+	Executive agreement, dated as of August 5, 2011, by and between the Registrant and Donald R. Young, as amended by the First Amendment thereto, dated as of October 23, 2012.
10.11@+	Executive agreement, dated as of August 5, 2011, by and between the Registrant and John F. Fairbanks, as amended by the First Amendment thereto, dated as of November 6, 2012.
10.12@+	Executive agreement, dated as of August 5, 2011, by and between the Registrant and George L. Gould, Ph.D.
10.13@+	Executive agreement, dated as of August 5, 2011, by and between the Registrant and Kevin A. Schmidt.
10.14@+	Executive agreement, dated as of January 30, 2012, by and between the Registrant and Corby C. Whitaker.
10.15@	2014 corporate bonus plan and participation letters of executive officers.
10.16@	Non-employee director compensation policy.
10.17#+	Cross license agreement dated as of April 1, 2006 by and between Cabot Corporation and the Registrant, as amended.
10.18@	Form of indemnification agreement with directors and certain officers.
21.1+	Subsidiaries of the Registrant.
23.1+	Consent of KPMG LLP.
23.2*	Consent of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. (included in Exhibit 5.1).
23.3+	Consent of Freedonia Custom Research, Inc.
24.1+	Powers of Attorney (included on signature page to initial filing).

* To be filed by amendment.

+ Previously filed.

Confidential treatment has been requested for portions of this exhibit.

@ Denotes management compensation plan or contract.

Exhibit 3.2

RESTATED CERTIFICATE OF INCORPORATION

OF

ASPEN AEROGELS, INC.

(Originally incorporated on May 16, 2008
under the name Aspen Merger Sub, Inc.)

FIRST: The name of the corporation is Aspen Aerogels, Inc. (hereinafter referred to as the "Corporation").

SECOND: The address of the registered office of the Corporation in the State of Delaware is 2711 Centerville Road, Suite 400, City of Wilmington, County of New Castle 19808. The name of the registered agent of the Corporation at that address is Corporation Service Company.

THIRD: The purpose of the Corporation is to engage in any lawful act or activity or carry on any business for which corporations may be organized under the Delaware General Corporation Law or any successor statute.

FOURTH:

A. Designation and Number of Shares.

The total number of shares of all classes of stock which the Corporation shall have the authority to issue is 130,000,000 shares, consisting of 125,000,000 shares of common stock, par value $0.00001 per share (the "Common Stock") and 5,000,000 shares of preferred stock, par value $0.00001 per share (the "Preferred Stock").

The number of authorized shares of Common Stock or Preferred Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by the affirmative vote of the holders of a majority of the voting power of all of the then-outstanding shares of capital stock of the Corporation entitled to vote thereon, without a separate vote of the holders of the Common Stock or the Preferred Stock, respectively, or of any series thereof, unless a vote of any such holders is required pursuant to the terms of any Preferred Stock designation.

B. Preferred Stock

1. Shares of Preferred Stock may be issued in one or more series at such time or times and for such consideration as the Board of Directors of the Corporation (the "Board of Directors") may determine.

2. Authority is hereby expressly granted to the Board of Directors to fix from time to time, by resolution or resolutions providing for the establishment and/or issuance of

shares of any series of Preferred Stock and by filing a certificate pursuant to the applicable law of the State of Delaware, the designation and number of the shares of each such series and the powers, preferences and rights of the shares of each such series, and any qualifications, limitations or restrictions thereof, to the fullest extent such authority may be conferred upon the Board of Directors under the Delaware General Corporation Law. Without limiting the generality of the foregoing, the resolutions providing for issuance of any series of Preferred Stock may provide that such series shall be superior or rank equally or be junior to the Preferred Stock of any other series to the extent permitted by law.

C. Common Stock.

1. Voting . The holders of the Common Stock are entitled to one vote for each share held; provided, however, that, except as otherwise required by law, holders of Common Stock shall not be entitled to vote on any amendment to this Restated Certificate of Incorporation (including any certificate of designation relating to any series of Preferred Stock) that relates solely to the terms of one or more outstanding series of Preferred Stock if the holders of such affected series are entitled, either separately or together as a class with the holders of one or more other such series, to vote thereon by law or pursuant to this Restated Certificate of Incorporation (including any certificate of designation relating to any series of Preferred Stock). The term "Restated Certificate of Incorporation" as used herein shall mean the Restated Certificate of Incorporation of the Corporation as amended from time to time.

2. Dividends . Dividends may be declared and paid on the Common Stock from funds lawfully available therefor if, as and when determined by the Board of Directors in their sole discretion, subject to provisions of law, any provision of this Restated Certificate of Incorporation, as amended from time to time, and subject to the relative rights and preferences of any shares of Preferred Stock authorized, issued and outstanding hereunder.

FIFTH: The following provisions are inserted for the management of the business and the conduct of the affairs of the Corporation, and for further definition, limitation and regulation of the powers of the Corporation and of its directors and stockholders:

A. The business and affairs of the Corporation shall be managed by or under the direction of the Board of Directors. In addition to the powers and authority expressly conferred upon them by statute or by this Restated Certificate of Incorporation or the Bylaws of the Corporation as in effect from time to time, the directors are hereby empowered to exercise all such powers and do all such acts and things as may be exercised or done by the Corporation.

B. The directors of the Corporation need not be elected by written ballot unless the Bylaws so provide.

C. A majority of the Whole Board (as defined in paragraph E below) shall constitute a quorum for all purposes at any meeting of the board of directors, and, except as otherwise expressly required by law or by this Restated Certificate of Incorporation, all matters shall be determined by the affirmative vote of a majority of the directors present at any meeting at which a quorum is present.

D. Subject to the rights of the holders of any series of Preferred Stock then outstanding, any action required or permitted to be taken by the stockholders of the Corporation may be effected only at a duly called annual or special meeting of stockholders of the Corporation and not by written consent.

E. Special meetings of the stockholders, other than those required by statute, may only be called by the Board of Directors acting pursuant to a resolution adopted by a majority of the Whole Board. For purposes of this Restated Certificate of Incorporation, the term "Whole Board" shall mean the total number of authorized directors whether or not there exist any vacancies in previously authorized directorships. Business transacted at any special meeting of stockholders shall be limited to matters relating to the purpose or purposes stated in the notice of meeting.

F. An annual meeting of stockholders, for the election of directors to succeed those whose terms expire and for the transaction of such other business as may properly come before the meeting, shall be held at such place, if any, on such date, and at such time as the Board of Directors shall fix.

SIXTH:

A. Subject to the rights of the holders of shares of any series of Preferred Stock then outstanding to elect additional directors under specified circumstances, the number of directors shall be fixed from time to time exclusively by the Board of Directors pursuant to a resolution adopted by a majority of the Whole Board.

B. The directors, other than those who may be elected by the holders of shares of any series of Preferred Stock under specified circumstances, shall be divided into three classes, with the term of office of the first class to expire at the first annual meeting of stockholders following the initial classification of directors, the term of office of the second class to expire at the second annual meeting of stockholders following the initial classification of directors, and the term of office of the third class to expire at the third annual meeting of stockholders following the initial classification of directors. At each annual meeting of stockholders, directors elected to succeed those directors whose terms expire, other than directors elected by the holders of any series of Preferred Stock under specified circumstances, shall be elected for a term of office to expire at the third succeeding annual meeting of stockholders after their election and until their successors are duly elected and qualified. The Board of Directors is authorized to assign members of the Board already in office to such classes as it may determine at the time the classification of the Board of Directors pursuant to this Restated Certificate of Incorporation becomes effective.

C. Subject to the rights of the holders of any series of Preferred Stock then outstanding, newly created directorships resulting from any increase in the authorized number of directors or any vacancies in the Board of Directors resulting from death, resignation, retirement, disqualification, removal from office or other cause shall, unless otherwise required by law or by resolution of the Board of Directors, be filled only by a majority vote of the directors then in office even though less than a quorum, or by a sole remaining director, and not by stockholders, and each director so chosen shall serve for a term expiring at the annual meeting of stockholders at

which the term of office of the class to which he or she has been chosen expires or until such director's successor shall have been duly elected and qualified. No decrease in the authorized number of directors shall shorten the term of any incumbent director.

D. Advance notice of stockholder nominations for the election of directors and of business to be brought by stockholders before any meeting of the stockholders of the Corporation shall be given in the manner provided in the Bylaws of the Corporation.

E. Subject to the rights of the holders of any series of Preferred Stock then outstanding, any director, or the entire Board of Directors, may be removed from office at any time only for cause and only by the affirmative vote of the holders of at least seventy-five percent (75%) of the voting power of all of the then-outstanding shares of capital stock of the Corporation entitled to vote at an election of directors, voting together as a single class.

SEVENTH: The Board of Directors is expressly empowered to adopt, amend or repeal Bylaws of the Corporation. Any adoption, amendment or repeal of the Bylaws of the Corporation by the Board of Directors shall require the approval of a majority of the Whole Board. The stockholders shall also have power to adopt, amend or repeal the Bylaws of the Corporation; provided that, in addition to any vote of the holders of any class or series of stock of the Corporation required by law or by this Restated Certificate of Incorporation, the affirmative vote of the holders of at least seventy-five percent (75%) of the voting power of all of the then outstanding shares of the capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class, shall be required for the stockholders to adopt, amend or repeal any provision of the Bylaws of the Corporation.

EIGHTH:

A. Each person who was or is made a party or is threatened to be made a party to or is otherwise involved (including, without limitation, as a witness) in any action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he is or was a director or an officer of the Corporation or is or was serving at the request of the Corporation as a director, officer, or trustee of another corporation, or of a partnership, joint venture, trust or other enterprise, including service with respect to an employee benefit plan (hereinafter an "Indemnitee"), whether the basis of such proceeding is alleged action in an official capacity as a director, officer or trustee or in any other capacity while serving as a director, officer or trustee, shall be indemnified and held harmless by the Corporation to the fullest extent permitted by the Delaware General Corporation Law, as the same exists or may hereafter be amended (but, in the case of any such amendment, only to the extent that such amendment permits the Corporation to provide broader indemnification rights than such law permitted the Corporation to provide prior to such amendment), against all expense, liability and loss (including attorneys' fees, judgments, fines, ERISA excise taxes or penalties and amounts paid in settlement) reasonably incurred or suffered by such Indemnitee in connection therewith; provided, however, that, except as provided in Paragraph C of this Article EIGHTH with respect to proceedings to enforce rights to indemnification or an advancement of expenses or as otherwise required by law, the Corporation shall not be required to indemnify or advance expenses to any such Indemnitee in connection with a proceeding (or part thereof) initiated by such Indemnitee unless such proceeding (or part thereof) was authorized by the Board of Directors of the Corporation or by any person designated to grant such authorization pursuant to a resolution adopted by the Board of Directors.

B. In addition to the right to indemnification conferred in Paragraph A of this Article EIGHTH, an Indemnitee shall also have the right to be paid by the Corporation the expenses (including attorneys' fees) incurred in defending any such proceeding in advance of its final disposition; provided, however, that, if the Delaware General Corporation Law requires, an advancement of expenses incurred by an Indemnitee in his capacity as a director or officer (and not in any other capacity in which service was or is rendered by such Indemnitee, including, without limitation, service to an employee benefit plan) shall be made only upon delivery to the Corporation of an undertaking, by or on behalf of such Indemnitee, to repay all amounts so advanced if it shall ultimately be determined by final judicial decision from which there is no further right to appeal that such Indemnitee is not entitled to be indemnified for such expenses under this Paragraph B or otherwise.

C. If a claim under Paragraph A or B of this Article EIGHTH is not paid in full by the Corporation within sixty (60) days after a written claim has been received by the Corporation, except in the case of a claim for an advancement of expenses, in which case the applicable period shall be twenty (20) days, the Indemnitee may at any time thereafter bring suit against the Corporation to recover the unpaid amount of the claim. To the fullest extent permitted by law, if successful in whole or in part in any such suit, or in a suit brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the Indemnitee shall also be entitled to be paid the expenses of prosecuting or defending such suit. In (i) any suit brought by the Indemnitee to enforce a right to indemnification hereunder (but not in a suit brought by the Indemnitee to enforce a right to an advancement of expenses) it shall be a defense that, and (ii) in any suit brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the Corporation shall be entitled to recover such expenses upon a final adjudication that, the Indemnitee has not met any applicable standard for indemnification set forth in the Delaware General Corporation Law. Neither the failure of the Corporation (including its directors who are not parties to such action, a committee of such directors, independent legal counsel, or its stockholders) to have made a determination prior to the commencement of such suit that indemnification of the Indemnitee is proper in the circumstances because the Indemnitee has met the applicable standard of conduct set forth in the Delaware General Corporation Law, nor an actual determination by the Corporation (including its directors who are not parties to such action, a committee of such directors, independent legal counsel, or its stockholders) that the Indemnitee has not met such applicable standard of conduct, shall create a presumption that the Indemnitee has not met the applicable standard of conduct or, in the case of such a suit brought by the Indemnitee, be a defense to such suit. In any suit brought by the Indemnitee to enforce a right to indemnification or to an advancement of expenses hereunder, or brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the burden of proving that the Indemnitee is not entitled to be indemnified, or to such advancement of expenses, under this Article EIGHTH or otherwise shall be on the Corporation.

D. The rights to indemnification and to the advancement of expenses conferred in this Article EIGHTH shall not be exclusive of any other right which any person may have or hereafter acquire under any statute, the Corporation's Certificate of Incorporation as amended from time to time, the Corporation's Bylaws, any agreement, any vote of stockholders or disinterested directors or otherwise.

E. The Corporation may maintain insurance, at its expense, to protect itself and any director, officer, employee or agent of the Corporation or another corporation, partnership, joint venture, trust or other enterprise against any expense, liability or loss, whether or not the Corporation would have the power to indemnify such person against such expense, liability or loss under the Delaware General Corporation Law.

F. The Corporation may grant rights to indemnification and to the advancement of expenses to any employee or agent of the Corporation to the fullest extent of the provisions of this Article EIGHTH with respect to the indemnification and advancement of expenses of directors and officers of the Corporation.

G. The rights conferred upon Indemnitees in this Article EIGHTH shall be contract rights and such rights shall continue as to an Indemnitee who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the Indemnitee's heirs, executors and administrators. Any amendment, alteration or repeal of this Article EIGHTH that adversely affects any right of an Indemnitee or its successors shall be prospective only and shall not limit or eliminate any such right with respect to any proceeding involving any occurrence or alleged occurrence of any action or omission to act that took place prior to any such amendment, alteration or repeal.

H. If any word, clause, provision or provisions of this Article EIGHTH shall be held to be invalid, illegal or unenforceable for any reason whatsoever: (i) the validity, legality and enforceability of the remaining provisions of this Article EIGHTH (including, without limitation, each portion of any section of this Article EIGHTH containing any such provision held to be invalid, illegal or unenforceable, that is not itself held to be invalid, illegal or unenforceable) shall not in any way be affected or impaired thereby; and (ii) to the fullest extent possible, the provisions of this Article EIGHTH (including, without limitation, each such portion of any section of this Article EIGHTH containing any such provision held to be invalid, illegal or unenforceable) shall be construed so as to give effect to the intent manifested by the provision held invalid, illegal or unenforceable.

NINTH: No director shall be personally liable to the Corporation or its stockholders for any monetary damages for breaches of fiduciary duty as a director; provided that this provision shall not eliminate or limit the liability of a director, to the extent that such liability is imposed by applicable law, (i) for any breach of the director's duty of loyalty to the Corporation or its stockholders; (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law; (iii) under Section 174 or successor provisions of the Delaware General Corporation Law; or (iv) for any transaction from which the director derived an improper personal benefit. No amendment to or repeal of this provision shall apply to or have any effect on the liability or alleged liability of any director for or with respect to any acts or omissions of such director occurring prior to such amendment or repeal. If the Delaware General Corporation Law is amended to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the Delaware General Corporation Law,

as so amended. All references in this Article NINTH to a director shall also be deemed to refer to any such director acting in his or her capacity as a Continuing Director (as defined in Article ELEVENTH).

TENTH: The Corporation reserves the right to amend or repeal any provision contained in this Restated Certificate of Incorporation in the manner prescribed by the Delaware General Corporation Law and all rights conferred upon stockholders are granted subject to this reservation; provided that in addition to the vote of the holders of any class or series of stock of the Corporation required by law or by this Restated Certificate of Incorporation, the affirmative vote of the holders of shares of voting stock of the Corporation representing at least seventy-five percent (75%) of the voting power of all of the then outstanding shares of the capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class, shall be required to amend, alter or repeal, or adopt any provision inconsistent with, Articles FIFTH (other than the proviso to Section A thereof), SIXTH, SEVENTH, EIGHTH, NINTH, this Article TENTH, Article ELEVENTH and Article TWELFTH of this Restated Certificate of Incorporation.

ELEVENTH: The Board of Directors is expressly authorized to cause the Corporation to issue rights pursuant to Section 157 of the Delaware General Corporation Law and, in that connection, to enter into any agreements necessary or convenient for such issuance, and to enter into other agreements necessary and convenient to the conduct of the business of the Corporation. Any such agreement may include provisions limiting, in certain circumstances, the ability of the Board of Directors of the Corporation to redeem the securities issued pursuant thereto or to take other action thereunder or in connection therewith unless there is a specified number or percentage of Continuing Directors then in office. Pursuant to Section 141(a) of the Delaware General Corporation Law, the Continuing Directors shall have the power and authority to make all decisions and determinations, and exercise or perform such other acts, that any such agreement provides that such Continuing Directors shall make, exercise or perform. For purposes of this Article ELEVENTH and any such agreement, the term, “Continuing Directors,” shall mean (1) those directors who were members of the Board of Directors of the Corporation at the time the Corporation entered into such agreement and any director who subsequently becomes a member of the Board of Directors, if such director’s nomination for election to the Board of Directors is recommended or approved by the majority vote of the Continuing Directors then in office and (2) such members of the Board of Directors designated in, or in the manner provided in, such agreement as Continuing Directors.

TWELFTH:

A. Unless the Corporation consents in writing to the selection of an alternative forum, the sole and exclusive forum for (i) any derivative action or proceeding brought on behalf of the Corporation, (ii) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of the Corporation to the Corporation or the Corporation’s stockholders, (iii) any action asserting a claim arising pursuant to, or a claim with respect to the interpretation or application of, any provision of the Delaware General Corporation Law, this Restated Certificate of Incorporation or the Bylaws of the Corporation, or (iv) any action asserting a claim governed by the internal affairs doctrine shall be a state or federal court located within the State of Delaware, in all cases subject to such court’s having personal jurisdiction over

the indispensable parties named as defendants. Any person or entity owning, purchasing or otherwise acquiring any interest in shares of capital stock of the Corporation shall be deemed to have notice of and consented to the provisions of this Article TWELFTH.

B. If any action the subject matter of which is within the scope of Paragraph A of this Article TWELFTH is filed in a court other than a court located within the State of Delaware (a "Foreign Action") in the name of any stockholder, such stockholder shall be deemed to have consented to (i) the personal jurisdiction of the state and federal courts located within the State of Delaware in connection with any action brought in any such court to enforce paragraph (a) above (an "FSC Enforcement Action") and (ii) having service of process made upon such stockholder in any such FSC Enforcement Action by service upon such stockholder's counsel in the Foreign Action as agent for such stockholder.

[Remainder of page intentionally left blank.]

IN WITNESS WHEREOF, this Restated Certificate of Incorporation, which restates and integrates and further amends the provisions of the Restated Certificate of Incorporation of this Corporation, and which has been duly adopted in accordance with Sections 228, 242 and 245 of the Delaware General Corporation Law, has been duly executed by its duly authorized President and Chief Executive Officer this day of , 2014.

ASPEN AEROGELS, INC.

By: _____

Donald R. Young
President and Chief Executive Officer

Exhibit 3.4

ASPEN AEROGELS, INC.

RESTATED BYLAWS

(effective [ ], 2014 [1])

ARTICLE I - STOCKHOLDERS

Section 1. Annual Meeting.

An annual meeting of the stockholders, for the election of directors to succeed those whose terms expire and for the transaction of such other business as may properly come before the meeting, shall be held at such place, on such date, and at such time as the Board of Directors shall fix each year. The Board of Directors may, in its sole discretion, determine that the meeting shall not be held at any place, but instead shall be held solely by means of remote communication as provided under the Delaware General Corporation Law.

Section 2. Special Meetings.

Special meetings of stockholders of the Corporation, other than those required by statute, may be called only by the Board of Directors pursuant to a resolution adopted by a majority of the Whole Board. For purposes of these Bylaws, the term "Whole Board" shall mean the total number of authorized directors whether or not there exist any vacancies in previously authorized directorships. Special meetings of the stockholders may be held at such place, if any, within or without the State of Delaware as may be stated in such resolution. The Board of Directors may, in its sole discretion, determine that the meeting shall not be held at any place, but instead shall be held solely by means of remote communication as provided under the Delaware General Corporation Law.

Section 3. Notice of Meetings.

Notice of the place, if any, date, and time of all meetings of the stockholders, the means of remote communications, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such meeting, and the record date for determining the stockholders entitled to vote at the meeting, if such date is different from the record date for determining stockholders entitled to notice of the meeting, shall be given, not less than ten (10) nor more than sixty (60) days before the date on which the meeting is to be held, to each stockholder entitled to vote at such meeting as of the record date for determining the stockholders entitled to notice of the meeting, except as otherwise provided herein or required by law (including, here and hereinafter, as required from time to time by the Delaware General Corporation Law or the Certificate of Incorporation of the Corporation, as amended or restated from time to time).

[1] To be effective upon completion of the IPO.

When a meeting is adjourned to another place, if any, date or time, notice need not be given of the adjourned meeting if the place, if any, date and time thereof, and the means of remote communications, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such adjourned meeting, are announced at the meeting at which the adjournment is taken; provided, however, that if the date of any adjourned meeting is more than thirty (30) days after the date for which the meeting was originally noticed, notice of the place, if any, date, and time of the adjourned meeting, and the means of remote communications, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such adjourned meeting, shall be given in conformity herewith. If after the adjournment a new record date for stockholders entitled to vote is fixed for the adjourned meeting, the Board of Directors shall fix a new record date for notice of such adjourned meeting, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors and, except as otherwise required by law, shall not be more than sixty (60) days nor less than ten (10) days before the date of such adjourned meeting, and shall give notice of the adjourned meeting to each stockholder of record entitled to vote at such adjourned meeting as of the record date fixed for notice of such adjourned meeting. At any adjourned meeting, any business may be transacted which might have been transacted at the original meeting.

Section 4. Quorum.

At any meeting of the stockholders, the holders of a majority of the voting power of all of the shares of the stock entitled to vote at the meeting, present in person or by proxy, shall constitute a quorum for all purposes, unless or except to the extent that the presence of a larger number may be required by law or provided by the rules of any stock exchange upon which the Corporation's securities are listed. Where a separate vote by a class or classes or series is required, a majority of the voting power of the shares of such class or classes or series present in person or represented by proxy shall constitute a quorum entitled to take action with respect to that vote on that matter.

If a quorum shall fail to attend any meeting, either the chairman of the meeting or the holders of a majority of the voting power of the shares of stock entitled to vote who are present, in person or by proxy, may adjourn the meeting to another place, if any, date, or time.

Section 5. Organization and Conduct of Business.

The Chairman of the Board of Directors or, in his or her absence, the Chief Executive Officer of the Corporation or, in his or her absence, the President or, in his or her absence, such person as the Board of Directors may have designated, shall call to order any meeting of the stockholders and shall preside at and act as chairman of the meeting. In the absence of the Secretary of the Corporation, the secretary of the meeting shall be such person as the chairman of the meeting appoints. The chairman of any meeting of stockholders shall determine the agenda, order of business and the procedures at the meeting, including the date and time of the opening and the

closing of the polls for each matter upon which the stockholders will vote at such meeting and such other regulation of the manner of voting and the conduct of discussion as he or she deems to be appropriate. The chairman of the meeting may also establish rules for determining who, in addition to stockholders entitled to vote thereat and their proxyholders, may attend the meeting of stockholders. The chairman of any meeting of stockholders shall have the power to adjourn or recess the meeting to another place, if any, date and time, whether pursuant to Section 4 of this Article or otherwise, and notice of such adjournment or recess need be given only if required by law. The date and time of the opening and closing of the polls for each matter upon which the stockholders will vote at the meeting shall be announced at the meeting.

Section 6. Notice of Stockholder Business and Nominations.

A. Annual Meetings of Stockholders.

Nominations of persons for election to the Board of Directors and the proposal of business to be considered by the stockholders at an annual meeting of stockholders may be made (a) pursuant to the Corporation's notice of meeting or proxy materials with respect to such meeting, (b) by or at the direction of the Board of Directors or (c) by any stockholder of the Corporation who was a stockholder of record at the time of giving of notice provided for in this Section, who is entitled to vote at the meeting and who has complied with the notice procedures set forth in this Section.

B. Special Meetings of Stockholders.

Only such business shall be conducted at a special meeting of stockholders as shall have been brought before the meeting pursuant to the notice of meeting given pursuant to Section 2 above. The notice of such special meeting shall include the purpose for which the meeting is called. Nominations of persons for election to the Board of Directors may be made at a special meeting of stockholders at which directors are to be elected (a) by or at the direction of the Board of Directors or (b) provided that the Board of Directors has determined that directors shall be elected at such meeting, by any stockholder of the Corporation who is a stockholder of record at the time of giving of notice provided for in this Section, who shall be entitled to vote at the meeting and who has complied with the notice procedures set forth in this Section.

C. Certain Matters Pertaining to Stockholder Business and Nominations.

(1) For nominations or other business to be properly brought before an annual meeting by a stockholder pursuant to clause (c) of paragraph A of this Section or for nominations to be properly brought before a special meeting by a stockholder pursuant to clause (b) of paragraph B of this Section, (1) the stockholder must have given timely notice thereof in writing to the Secretary of the Corporation, (2) such other business must otherwise be a proper matter for stockholder action under the Delaware General Corporation Law, (3) if the stockholder, or the beneficial owner on whose behalf any such proposal or nomination is made, has provided the Corporation with a Solicitation Notice, as that term is defined in this paragraph, such stockholder or beneficial owner

must, in the case of a proposal, have delivered a proxy statement and form of proxy to holders of at least the percentage of the Corporation's voting shares required under applicable law to carry any such proposal, or, in the case of a nomination or nominations, have delivered a proxy statement and form of proxy to holders of a percentage of the Corporation's voting shares reasonably believed by such stockholder or beneficial holder to be sufficient to elect the nominee or nominees proposed to be nominated by such stockholder and (4) if no Solicitation Notice relating thereto has been timely provided pursuant to this Section, the stockholder or beneficial owner proposing such business or nomination must not have solicited a number of proxies sufficient to have required the delivery of such a Solicitation Notice under this Section.

To be timely, a stockholder's notice pertaining to an annual meeting shall be delivered to the Secretary at the principal executive offices of the Corporation not less than ninety (90) or more than one hundred twenty (120) days prior to the first anniversary (the "Anniversary") of the preceding year's annual meeting; provided, however, that in the event that the date of the annual meeting is more than thirty (30) days before or more than thirty (30) days after the Anniversary, notice by the stockholder to be timely must be so delivered not earlier than the close of business on the one hundred twentieth (120) day prior to such annual meeting and not later than the close of business on the later of the ninetieth (90th) day prior to such annual meeting or the close of business on the tenth (10th) day following the day on which public announcement of the date of such meeting is first made by the Corporation. Notwithstanding the foregoing proviso, in no event shall an adjournment, postponement or recess of an annual meeting for which notice has been given commence a new time period for the giving of a stockholder's notice pertaining to an annual meeting. Such stockholder's notice for an annual meeting or a special meeting shall set forth:

(a) as to each person whom the stockholder proposes to nominate for election or reelection as a director:

(i) all information relating to such person that would be required to be disclosed in solicitations of proxies for election of such nominees as directors, or is otherwise required, in each case, pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended (the "Exchange Act") (including such person's written consent to being named in the proxy statement as a nominee and to serving as a director if elected);

(ii) a description of all direct and indirect compensation and other material monetary agreements, arrangements and understandings during the past three years, and any other material relationships, between or among such stockholder and beneficial owner, if any, and their respective affiliates and associates, on the one hand, and each proposed nominee, and his or her respective affiliates and associates, on the other hand, including, without limitation all information that would be required to be disclosed pursuant to Item 404 of Regulation S-K promulgated under the Securities Act of 1933, as amended, if the stockholder making the nomination and any beneficial owner on whose behalf the nomination is made, if any, or any affiliate or associate thereof, were the "registrant" for purposes of such rule and the nominee were a director or executive officer of such registrant;

(iii) to the extent known by the stockholder, the name and address of any other securityholder of the Corporation who owns, beneficially or of record, any securities of the Corporation and who supports any nominee proposed by such stockholder; and

(iv) with respect to each nominee for election or reelection to the Board of Directors, include a completed and signed questionnaire, representation and agreement as required by paragraph D of this Section;

(b) as to any other business that the stockholder proposes to bring before the meeting, a brief description of the business desired to be brought before the meeting, including the text of any resolutions proposed for consideration, the reasons for conducting such business at the meeting, any material interest in such business of such stockholder and the beneficial owner, if any, on whose behalf the proposal is made, and to the extent known by the stockholder, the name and address of any other securityholder of the Corporation who owns, beneficially or of record, any securities of the Corporation and who supports any matter such stockholder intends to propose; and

(c) as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the nomination or proposal is made (each, a "party"):

(i) the name and address of such stockholder, as they appear on the Corporation's books, and of such beneficial owner;

(ii) (A) the class or series and number of shares of the Corporation which are, directly or indirectly, owned beneficially and of record by such stockholder and such beneficial owner, (B) any option, warrant, convertible security, stock appreciation right, or similar right with an exercise or conversion privilege or a settlement payment or mechanism at a price related to any class or series of shares of the Corporation or with a value derived in whole or in part from the value of any class or series of shares of the Corporation, whether or not such instrument or right shall be subject to settlement in the underlying class or series of capital stock of the Corporation or otherwise (a "Derivative Instrument"), directly or indirectly owned beneficially by such stockholder and any other direct or indirect opportunity to profit or share in any profit derived from any increase or decrease in the value of shares of the Corporation, (C) any proxy, contract, arrangement, understanding, or relationship pursuant to which such stockholder has a right to vote any shares of any security of the Corporation, (D) any short interest in any security of the Corporation (for purposes of these Bylaws a person shall be deemed to have a short interest in a security if such person directly or indirectly, through any contract, arrangement, understanding, relationship or otherwise, has the opportunity to profit or share in any profit derived from any decrease in the value of the subject security), (E) any rights to dividends on the shares of the Corporation owned beneficially by such stockholder that are separated or separable from the underlying shares of the Corporation, (F) any proportionate interest in shares of the Corporation or Derivative Instruments held, directly or indirectly, by a general or limited partnership in which such stockholder is a general partner or, directly or indirectly, beneficially owns an interest in a general partner, and (G) any performance-related fees (other than an asset-based fee) that such stockholder is entitled to based on any increase or decrease in the value of shares of the Corporation or Derivative

Instruments, if any, as of the date of such notice, including without limitation any such interests held by members of such stockholder's immediate family sharing the same household (which information shall be supplemented by such stockholder and beneficial owner, if any, not later than ten (10) days after the record date for the meeting to disclose such ownership as of the record date; provided that if such date is after the date of the meeting, not later than the day prior to the meeting);

(iii) any other information relating to such stockholder and beneficial owner, if any, that would be required to be disclosed in a proxy statement or other filings required to be made in connection with solicitations of proxies for, as applicable, the proposal and/or for the election of directors in a contested election pursuant to Regulation 14A under the Exchange Act and the rules and regulations promulgated thereunder;

(iv) a description of all agreements, arrangements and understandings between such stockholder and beneficial owner, if any, and any other person or persons (including their names) in connection with the proposal of such business by such stockholder; and

(v) a statement whether or not either such stockholder or beneficial owner intends to deliver a proxy statement and form of proxy to holders of, in the case of a proposal, at least the percentage of the Corporation's voting shares required under applicable law to carry the proposal or, in the case of a nomination or nominations, a sufficient number of holders of the Corporation's voting shares to elect such nominee or nominees (an affirmative statement of such intent, a "Solicitation Notice").

(2) Notwithstanding anything in the second sentence of paragraph C (1) of this Section to the contrary, in the event that the number of directors to be elected to the Board of Directors of the Corporation is increased and there is no public announcement by the Corporation naming all of the nominees for director or specifying the size of the increased Board of Directors at least fifty-five (55) days prior to the Anniversary (or, if the annual meeting is held more than thirty (30) days before or thirty (30) days after the Anniversary, at least fifty-five (55) days prior to such annual meeting), a stockholder's notice required by this Section shall also be considered timely, but only with respect to nominees for any new positions created by such increase, if it shall be delivered to the Secretary at the principal executive office of the Corporation not later than the close of business on the tenth (10th) day following the day on which such public announcement is first made by the Corporation.

(3) In the event the Corporation calls a special meeting of stockholders for the purpose of electing one or more directors to the Board of Directors, any such stockholder may nominate a person or persons (as the case may be), for election to such position(s) as specified in the Corporation's notice of meeting, if the stockholder's notice required by paragraph C (1) of this Section shall be delivered to the Secretary at the principal executive offices of the Corporation not earlier than the ninetieth (90th) day prior to such special meeting nor later than the close of business on the later of (i) the sixtieth (60th) day prior to such special meeting or (ii) the tenth (10th) day following the day on which public announcement is first made of the date of the special meeting and of the nominees proposed by the Board of Directors to be elected at such meeting.

D. General .

(1) Only such persons who are nominated in accordance with the procedures set forth in this Section shall be eligible to serve as directors and only such business shall be conducted at a meeting of stockholders as shall have been brought before the meeting in accordance with the procedures set forth in this Section. Except as otherwise provided by law or these Bylaws, the chairman of the meeting shall have the power and duty to determine whether a nomination or any business proposed to be brought before the meeting was made or proposed, as the case may be, in accordance with the procedures set forth in these Bylaws and, if any proposed nomination or business is not in compliance herewith, to declare that such defective proposal or nomination shall be disregarded.

(2) For purposes of this Section, "public announcement" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or comparable national news service or in a document publicly filed by the Corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the Exchange Act.

(3) Notwithstanding the foregoing provisions of this Section, a stockholder shall also comply with all applicable requirements of the Exchange Act and the rules and regulations thereunder with respect to the matters set forth herein. Nothing in this Section shall be deemed to affect any rights (i) of stockholders to request inclusion of proposals in the Corporation's proxy statement pursuant to Rule 14a-8 under the Exchange Act or (ii) of the holders of any series of Preferred Stock to elect directors under specified circumstances.

(4) Notwithstanding the foregoing provisions of this Section, unless otherwise required by law, if the stockholder (or a qualified representative of the stockholder) does not appear at the annual or special meeting of stockholders of the Corporation to make its nomination or propose any other matter, such nomination shall be disregarded and such other proposed matter shall not be transacted, even if proxies in respect of such vote have been received by the Corporation. For purposes of this Section, to be considered a "qualified representative" of the stockholder, a person must be a duly authorized officer, manager or partner of such stockholder or must be authorized by a writing executed by such stockholder or an electronic transmission delivered by such stockholder to act for such stockholder as proxy at the meeting of stockholders, and such person must produce such writing or electronic transmission, or a reliable reproduction of the writing or electronic transmission, at the commencement of the meeting of stockholders.

Section 7. Proxies and Voting.

At any meeting of the stockholders, every stockholder entitled to vote may vote in person or by proxy authorized by an instrument in writing or by a transmission permitted by law filed in accordance with the procedure established for the meeting. Any copy, facsimile

telecommunication or other reliable reproduction of the writing or transmission created pursuant to this Section may be substituted or used in lieu of the original writing or transmission for any and all purposes for which the original writing or transmission could be used, provided that such copy, facsimile telecommunication or other reproduction shall be a complete reproduction of the entire original writing or transmission.

At the discretion of the chairman of the meeting, all voting, including on the election of directors but excepting where otherwise required by law, may be by voice vote. Any vote not taken by voice shall be taken by ballots, each of which shall state the name of the stockholder or proxyholder submitting such ballot and such other information as may be required under the procedure established for the meeting. The Corporation may, and to the extent required by law, shall, in advance of any meeting of stockholders, appoint one or more inspectors to act at the meeting and make a written report thereof. The Corporation may designate one or more persons as alternate inspectors to replace any inspector who fails to act. If no inspector or alternate is able to act at a meeting of stockholders, the person presiding at the meeting may, and to the extent required by law, shall, appoint one or more inspectors to act at the meeting. Each inspector, before entering upon the discharge of his duties, shall take and sign an oath faithfully to execute the duties of inspector with strict impartiality and according to the best of his ability.

Except as otherwise provided in the terms of any class or series of Preferred Stock of the Corporation, all elections at any meeting of stockholders shall be determined by a plurality of the votes cast, and except as otherwise required by law, these Bylaws or the rules of any stock exchange upon which the Corporation's securities are listed, all other matters determined by stockholders at a meeting shall be determined by a majority of the votes cast affirmatively or negatively.

Section 8. Action Without Meeting.

Any action required or permitted to be taken by the stockholders of the Corporation may be effected only at a duly called annual or special meeting of stockholders of the Corporation and may not be effected by written consent.

Section 9. Stock List.

A complete list of stockholders entitled to vote at any meeting of stockholders, arranged in alphabetical order for each class of stock and showing the address of each such stockholder and the number of shares registered in his or her name, shall be open to the examination of any such stockholder for any purpose germane to the meeting for a period of at least ten (10) days prior to the meeting in the manner provided by law; provided, however, that if the record date for determining the stockholders entitled to vote is less than ten (10) days before the meeting date, the list shall reflect the stockholders entitled to vote as of the tenth (10th) day before the meeting date. A stock list shall also be open to the examination of any stockholder during the whole time of the meeting as provided by law.

The stock ledger shall presumptively determine the identity of the stockholders entitled to examine the stock list and to vote, and the number of shares held by each of them.

ARTICLE II - BOARD OF DIRECTORS

Section 1. General Powers, Number, Election, Tenure, Qualification and Chairman.

A. Except as otherwise provided by law, the business and affairs of the Corporation shall be managed by or under the direction of its Board of Directors.

B. Subject to the rights of the holders of any series of Preferred Stock then outstanding to elect additional directors under specified circumstances, the number of directors shall be fixed from time to time exclusively by the Board of Directors pursuant to a resolution adopted by a majority of the Whole Board.

C. Subject to the rights of the holders of shares of any series of Preferred Stock then outstanding to elect additional directors under specified circumstances, the Board of Directors of the Corporation shall be divided into three classes, with the term of office of the first class to expire at the first annual meeting of stockholders following the initial classification of directors, the term of office of the second class to expire at the second annual meeting of stockholders following the initial classification of directors, and the term of office of the third class to expire at the third annual meeting of stockholders following the initial classification of directors. At each annual meeting of stockholders, directors elected to succeed those directors whose terms expire, other than directors elected by the holders of any series of Preferred Stock, shall be elected for a term of office to expire at the third succeeding annual meeting of stockholders after their election and until their successors are duly elected and qualified, and if authorized by a resolution of the Board of Directors, directors may be elected to fill any vacancy on the Board of Directors, regardless of how such vacancy shall have been created. The Board of Directors is authorized to assign members of the Board already in office to such classes as it may determine at the time the classification of the Board of Directors becomes effective.

D. The Chairman of the Board and any Vice Chairman appointed to act in the absence of the Chairman, if any, shall be elected by and from the Board of Directors. The Chairman of the Board shall preside at all meetings of the Board of Directors and stockholders at which he or she is present and shall have such authority and perform such duties as may be prescribed by these Bylaws or from time to time be determined by the Board of Directors.

Section 2. Vacancies and Newly Created Directorships.

Subject to the rights of the holders of any series of Preferred Stock then outstanding, newly created directorships resulting from any increase in the authorized number of directors or any vacancies in the Board of Directors resulting from death, resignation, retirement, disqualification, removal from office or other cause shall, unless otherwise required by law or by resolution of the Board of Directors, be filled only by a majority vote of the directors then in office even though less than a quorum, or by a sole remaining director, and not by stockholders, and each director so chosen shall serve for a term expiring at the annual meeting of stockholders at which the term of office of the class to which he or she has been chosen expires or until such director's successor shall have been duly elected and qualified. No decrease in the authorized number of directors shall shorten the term of any incumbent director. In the event of a vacancy in the Board of Directors, the remaining directors, except as otherwise provided by law, may exercise the powers of the Board of Directors until the vacancy is filled.

Section 3. Resignation and Removal.

Any director may resign at any time upon notice given in writing or by electronic transmission to the Corporation at its principal place of business or to the Chairman of the Board, Chief Executive Officer, President or Secretary. Such resignation shall be effective upon receipt unless it is specified to be effective at some other time or upon the happening of some other event. Subject to the rights of the holders of any series of Preferred Stock then outstanding, any director, or the entire Board of Directors, may be removed from office at any time only for cause and only by the affirmative vote of the holders of at least seventy-five percent (75%) of the voting power of all of the then outstanding shares of the Corporation then entitled to vote at an election of directors, voting together as a single class.

Section 4. Regular Meetings.

Regular meetings of the Board of Directors shall be held at such place or places, on such date or dates, and at such time or times as shall have been established by the Board of Directors and publicized among all directors. A notice of each regular meeting shall not be required.

Section 5. Special Meetings.

Special meetings of the Board of Directors may be called by the Chairman of the Board of Directors or the Chief Executive Officer, and shall be called by the Secretary if requested by a majority of the Whole Board, and shall be held at such place, on such date, and at such time as he or

she or they shall fix. Notice of the place, date, and time of each such special meeting shall be given to each director by whom it is not waived by mailing written notice not less than five (5) days before the meeting or orally, by telegraph, telex, cable, telecopy or electronic transmission given not less than twenty-four (24) hours before the meeting. Unless otherwise indicated in the notice thereof, any and all business may be transacted at a special meeting.

Section 6. Quorum.

At any meeting of the Board of Directors, a majority of the total number of the Whole Board shall constitute a quorum for all purposes. If a quorum shall fail to attend any meeting, a majority of those present may adjourn the meeting to another place, date, or time, without further notice or waiver thereof.

Section 7. Action by Consent.

Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, any action required or permitted to be taken at any meeting of the Board of Directors may be taken without a meeting, if all members of the Board consent thereto in writing or by electronic transmission, and the writing or writings or electronic transmission or transmissions are filed with the minutes of proceedings of the Board. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form.

Section 8. Participation in Meetings By Conference Telephone.

Members of the Board of Directors, or of any committee thereof, may participate in a meeting of such Board or committee by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other and such participation shall constitute presence in person at such meeting.

Section 9. Conduct of Business.

At any meeting of the Board of Directors, business shall be transacted in such order and manner as the Board may from time to time determine, and all matters shall be determined by the vote of a majority of the directors present, except as otherwise provided herein or required by law.

Section 10. Compensation of Directors.

Directors, as such, may receive, pursuant to a resolution of the Board of Directors, fixed fees and other compensation for their services as directors, including, without limitation, their services as members of committees of the Board of Directors or as Chairman or Vice Chairman of the Board of Directors. No such payment shall preclude any director from serving the Corporation in any other capacity and receiving compensation therefor.

ARTICLE III - COMMITTEES

Section 1. Committees of the Board of Directors.

The Board of Directors may from time to time designate committees of the Board, with such lawfully delegable powers and duties as it thereby confers, to serve at the pleasure of the Board and shall, for those committees and any others provided for herein, elect a director or directors to serve as the member or members, designating, if it desires, other directors as alternate members who may replace any absent or disqualified member at any meeting of the committee. Any such committee, to the extent provided in the resolution of the Board of Directors, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the Corporation to the fullest extent authorized by law. In the absence or disqualification of any member of any committee and any alternate member in his or her place, the member or members of the committee present at the meeting and not disqualified from voting, whether or not he or she or they constitute a quorum, may by unanimous vote appoint another member of the Board of Directors to act at the meeting in the place of the absent or disqualified member.

Section 2. Conduct of Business.

Each committee may determine the procedural rules for meeting and conducting its business and shall act in accordance therewith, except as otherwise provided herein or required by law. Adequate provision shall be made for notice to members of all meetings; one-third (1/3) of the members of any committee shall constitute a quorum unless the committee shall consist of one (1) or two (2) members, in which event one (1) member shall constitute a quorum; and all matters shall be determined by a majority vote of the members present. Action may be taken by any committee without a meeting if all members thereof consent thereto in writing or by electronic transmission, and the writing or writings or electronic transmission or transmissions are filed with the minutes of the proceedings of such committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form.

ARTICLE IV - OFFICERS

Section 1. Enumeration.

The officers of the Corporation shall consist of a Chief Executive Officer, President, Chief Financial Officer, Treasurer, Secretary and such other officers as the Board of Directors or the Chief Executive Officer may determine, including, but not limited to, one or more Vice Presidents, Assistant Treasurers and Assistant Secretaries. The salaries of officers elected by the Board of Directors shall be fixed from time to time by the Board of Directors or by such officers as may be designated by resolution of the Board of Directors.

Section 2. Election.

The Chief Executive Officer, President, Chief Financial Officer, Treasurer and the Secretary shall be elected annually by the Board of Directors at their first meeting following the annual meeting of the stockholders. The Board of Directors or the Chief Executive Officer, may, from time to time, elect or appoint such other officers as it or he or she may determine, including, but not limited to, one or more Vice Presidents, Assistant Treasurers and Assistant Secretaries.

Section 3. Qualification.

No officer need be a director. Two or more offices may be held by any one person. If required by vote of the Board of Directors, an officer shall give bond to the Corporation for the faithful performance of his or her duties, in such form and amount and with such sureties as the Board of Directors may determine. The premiums for such bonds may be paid by the Corporation.

Section 4. Tenure and Removal.

Each officer elected or appointed by the Board of Directors shall hold office until the first meeting of the Board of Directors following the next annual meeting of the stockholders and until his or her successor is elected or appointed and qualified, or until he or she dies, resigns, is removed or becomes disqualified, unless a shorter term is specified in the vote electing or appointing said officer. Each officer appointed by the Chief Executive Officer shall hold office until his or her successor is elected or appointed and qualified, or until he or she dies, resigns, is removed or becomes disqualified, unless a shorter term is specified by any agreement or other instrument appointing such officer. Any officer may resign by giving notice in writing or by electronic transmission of his or her resignation to the Chief Executive Officer, the President, or the Secretary, or to the Board of Directors at a meeting of the Board. Such resignation shall be effective upon receipt unless it is specified to be effective at some other time or upon the happening of some other event. Any officer elected or appointed by the Board of Directors may be removed from office with or without cause only by the Board. Any officer appointed by the Chief Executive Officer may be removed with or without cause by the Chief Executive Officer or by the Board.

Section 5. Chief Executive Officer.

The Chief Executive Officer shall be the chief executive officer of the Corporation and shall, subject to the direction of the Board of Directors, have general supervision and control of its business. Unless otherwise provided by resolution of the Board of Directors, in the absence of the Chairman of the Board, the Chief Executive Officer shall preside at all meetings of the stockholders and, if a director, meetings of the Board of Directors. The Chief Executive Officer shall have general supervision and direction of all of the officers, employees and agents of the Corporation. Subject to the provisions of these Bylaws and the direction of the Board, the Chief Executive Officer shall also have the power and authority to determine the duties of all officers, employees and agents of the Corporation, shall determine the compensation of any officers whose compensation is not established by the Board of Directors and shall have the power and authority to sign all contracts and other instruments of the Corporation which are authorized.

Section 6. President.

Except for meetings at which the Chief Executive Officer or the Chairman of the Board, if any, presides, the President shall, if present, preside at all meetings of stockholders, and if a director, at all meetings of the Board of Directors. The President shall, subject to the control and direction of the Chief Executive Officer and the Board of Directors, have and perform such powers and duties as may be prescribed by these Bylaws or from time to time be determined by the Chief Executive Officer or the Board of Directors. The President shall have power to sign all stock certificates, contracts and other instruments of the Corporation which are authorized. In the absence of a Chief Executive Officer, the President shall be the chief executive officer of the Corporation and shall, subject to the direction of the Board of Directors, have general supervision and control of its business and shall have general supervision and direction of all of the officers, employees and agents of the Corporation.

Section 7. Vice Presidents.

The Vice Presidents, if any, shall have such powers and duties as may from time to time be determined by the Board of Directors or the Chief Executive Officer.

Section 8. Chief Financial Officer, Treasurer and Assistant Treasurers.

The Chief Financial Officer shall, subject to the control and direction of the Board of Directors and the Chief Executive Officer, be the chief financial officer of the Corporation and shall have and perform such powers and duties as may be prescribed in these Bylaws or be determined from time to time by the Board of Directors and the Chief Executive Officer. All property of the Corporation in the custody of the Chief Financial Officer shall be subject at all times to the inspection and control of the Board of Directors and the Chief Executive Officer. The Chief Financial Officer shall have the responsibility for maintaining the financial records of the Corporation. The Chief Financial Officer shall make such disbursements of the funds of the Corporation as are authorized and shall render from time to time an account of all such transactions and of the financial condition of the Corporation. Unless the Board of Directors has designated another person as the Corporation’s Treasurer, the Chief Financial Officer shall also be the Treasurer. The Treasurer, if a person other than the Chief Financial Officer, and the Assistant Treasurers, if any, shall have such powers and duties as may from time to time be determined by the Board of Directors or the Chief Executive Officer.

Section 9. Secretary and Assistant Secretaries.

The Board of Directors or the Chief Executive Officer shall appoint a Secretary and, in his or her absence, an Assistant Secretary. Unless otherwise directed by the Board of Directors, the Secretary or, in his or her absence, any Assistant Secretary, shall attend all meetings of the directors and stockholders and shall record all votes of the Board of Directors and stockholders and minutes of the proceedings at such meetings. The Secretary or, in his or her absence, any Assistant Secretary, shall notify the directors of their meetings, and shall have and perform such other powers

and duties as may from time to time be determined by the Board of Directors. If the Secretary or an Assistant Secretary is elected but is not present at any meeting of directors or stockholders, a temporary Secretary may be appointed by the directors or the Chief Executive Officer at the meeting.

Section 10. Bond.

If required by the Board of Directors, any officer shall give the Corporation a bond in such sum and with such surety or sureties and upon such terms and conditions as shall be satisfactory to the Board of Directors, including without limitation a bond for the faithful performance of the duties of his office and for the restoration to the Corporation of all books, papers, vouchers, money and other property of whatever kind in his or her possession or under his control and belonging to the Corporation.

Section 11. Action with Respect to Securities of Other Corporations.

Unless otherwise directed by the Board of Directors, the Chief Executive Officer or any other officer of the Corporation authorized by the Chief Executive Officer shall have power to vote and otherwise act on behalf of the Corporation, in person or by proxy, at any meeting of stockholders of or with respect to any action of stockholders of any other corporation in which this Corporation may hold securities and otherwise to exercise any and all rights and powers which this Corporation may possess by reason of its ownership of securities in such other corporation.

ARTICLE V - STOCK

Section 1. Certificated and Uncertificated Stock.

Shares of the Corporation's stock may be certificated or uncertificated, as provided under the Delaware General Corporation Law, and shall be entered in the books of the Corporation and registered as they are issued. Any certificates representing shares of stock shall be in such form as the Board of Directors shall prescribe, certifying the number, class and, if applicable, series of shares of the stock owned by the stockholder. Any certificates issued to a stockholder of the Corporation shall bear the name of the Corporation and shall be signed by, or in the name of the Corporation by, the Chairman or Vice Chairman of the Board of Directors, or the President or a Vice President, and by the Treasurer or an Assistant Treasurer, or the Secretary or an Assistant Secretary. Any or all of the signatures on the certificate may be by facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued with the same effect as if such person were such officer, transfer agent or registrar at the date of issue.

Section 2. Transfers of Stock.

Transfers of stock shall be made only upon the transfer books of the Corporation kept at an office of the Corporation or by transfer agents designated to transfer shares of the stock of the Corporation. Except where a certificate is issued in accordance with Section 4 of this Article of these Bylaws or in the case of uncertificated shares, an outstanding certificate for the number of shares involved shall be surrendered for cancellation before a new certificate is issued therefor.

Section 3. Record Date.

In order that the Corporation may determine the stockholders entitled to notice of any meeting of stockholders, or to receive payment of any dividend or other distribution or allotment of any rights or to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the Board of Directors may fix a record date, which record date shall not precede the date on which the resolution fixing the record date is adopted and which record date shall not be more than sixty (60) nor less than ten (10) days before the date of any meeting of stockholders, nor more than sixty (60) days prior to the time for such other action as hereinbefore described. If the Board of Directors so fixes a record date for notice of a meeting of stockholders, such date shall also be the record date for determining the stockholders entitled to vote at such meeting unless the Board of Directors determines, at the time it fixes such record date, that a later date on or before the date of the meeting shall be the date for making such determination. If no record date is fixed by the Board of Directors, the record date for determining stockholders entitled to notice of and to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held, and, for determining stockholders entitled to receive payment of any dividend or other distribution or allotment of rights or to exercise any rights of change, conversion or exchange of stock or for any other purpose, the record date shall be at the close of business on the day on which the Board of Directors adopts a resolution relating thereto.

A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board of Directors may fix a new record date for determination of stockholders entitled to vote at the adjourned meeting, and in such case shall also fix as the record date for stockholders entitled to notice of such adjourned meeting the same or an earlier date as that fixed for determination of stockholders entitled to vote in accordance with the foregoing provisions of this Section 3 at the adjourned meeting.

Section 4. Lost, Stolen or Destroyed Certificates.

In the event of the loss, theft or destruction of any certificate of stock, the Corporation may issue a new certificate of stock or uncertificated shares in place of any certificate previously issued by the Corporation pursuant to such regulations as the Board of Directors may establish concerning proof of such loss, theft or destruction and concerning the giving of a satisfactory bond or bonds of indemnity.

Section 5. Regulations.

The issue, transfer, conversion and registration of certificates of stock shall be governed by such other regulations as the Board of Directors may establish.

ARTICLE VI - NOTICES

Section 1. Notices.

If mailed, notice to stockholders shall be deemed given when deposited in the mail, postage prepaid, directed to the stockholder at such stockholder's address as it appears on the records of the Corporation. Without limiting the manner by which notice otherwise may be given effectively to stockholders, any notice to stockholders may be given by electronic transmission in the manner provided in Section 232 of the Delaware General Corporation Law.

Section 2. Waiver of Notice.

A written waiver of any notice, signed by a stockholder or director, or waiver by electronic transmission by such person, whether before or after the time of the event for which notice is to be given, shall be deemed equivalent to the notice required to be given to such person. Neither the business nor the purpose of any meeting need be specified in such a waiver. Attendance at any meeting shall constitute waiver of notice except attendance for the sole purpose of objecting at the beginning of the meeting to the transaction of business because the meeting is not lawfully called or convened.

ARTICLE VII - INDEMNIFICATION OF DIRECTORS AND OFFICERS

Section 1. Right to Indemnification.

Each person who was or is made a party or is threatened to be made a party to or is otherwise involved (including, without limitation, as a witness) in any action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he is or was a director or an officer of the Corporation or is or was serving at the request of the Corporation as a director, officer, or trustee of another corporation, or of a partnership, joint venture, trust or other enterprise, including service with respect to an employee benefit plan (hereinafter an "Indemnitee"), whether the basis of such proceeding is alleged action in an official capacity as a director, officer or trustee or in any other capacity while serving as a director, officer or trustee, shall be indemnified and held harmless by the Corporation to the fullest extent permitted by the Delaware General Corporation Law, as the same exists or may hereafter be amended (but, in the case of any such

amendment, only to the extent that such amendment permits the Corporation to provide broader indemnification rights than such law permitted the Corporation to provide prior to such amendment), against all expense, liability and loss (including attorneys' fees, judgments, fines, ERISA excise taxes or penalties and amounts paid in settlement) reasonably incurred or suffered by such Indemnitee in connection therewith; provided, however, that, except as provided in Section 3 of this Article with respect to proceedings to enforce rights to indemnification or as otherwise required by law, the Corporation shall not be required to indemnify or advance expenses to any such Indemnitee in connection with a proceeding (or part thereof) initiated by such Indemnitee unless such proceeding (or part thereof) was authorized by the Board of Directors of the Corporation or by any person designated to grant such authorization pursuant to a resolution adopted by the Board of Directors.

Section 2. Right to Advancement of Expenses.

In addition to the right to indemnification conferred in Section 1 of this Article, an Indemnitee shall also have the right to be paid by the Corporation the expenses (including attorneys' fees) incurred in defending any such proceeding in advance of its final disposition; provided, however, that, if the Delaware General Corporation Law requires, an advancement of expenses incurred by an Indemnitee in his capacity as a director or officer (and not in any other capacity in which service was or is rendered by such Indemnitee, including, without limitation, service to an employee benefit plan) shall be made only upon delivery to the Corporation of an undertaking, by or on behalf of such Indemnitee, to repay all amounts so advanced if it shall ultimately be determined by final judicial decision from which there is no further right to appeal that such Indemnitee is not entitled to be indemnified for such expenses under this Section 2 or otherwise.

Section 3. Right of Indemnitees to Bring Suit.

If a claim under Section 1 or 2 of this Article is not paid in full by the Corporation within sixty (60) days after a written claim has been received by the Corporation, except in the case of a claim for an advancement of expenses, in which case the applicable period shall be twenty (20) days, the Indemnitee may at any time thereafter bring suit against the Corporation to recover the unpaid amount of the claim. To the fullest extent permitted by law, if successful in whole or in part in any such suit, or in a suit brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the Indemnitee shall also be entitled to be paid the expenses of prosecuting or defending such suit. In (i) any suit brought by the Indemnitee to enforce a right to indemnification hereunder (but not in a suit brought by the Indemnitee to enforce a right to an advancement of expenses) it shall be a defense that, and (ii) in any suit brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the Corporation shall be entitled to recover such expenses upon a final adjudication that, the Indemnitee has not met any applicable standard for indemnification set forth in the Delaware General Corporation Law. Neither the failure of the Corporation (including its directors who are not parties to such action, a committee of such directors, independent legal counsel, or its stockholders) to have made a determination prior to the commencement of such suit that indemnification of the

Indemnitee is proper in the circumstances because the Indemnitee has met the applicable standard of conduct set forth in the Delaware General Corporation Law, nor an actual determination by the Corporation (including its directors who are not parties to such action, a committee of such directors, independent legal counsel, or its stockholders) that the Indemnitee has not met such applicable standard of conduct, shall create a presumption that the Indemnitee has not met the applicable standard of conduct or, in the case of such a suit brought by the Indemnitee, be a defense to such suit. In any suit brought by the Indemnitee to enforce a right to indemnification or to an advancement of expenses hereunder, or brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the burden of proving that the Indemnitee is not entitled to be indemnified, or to such advancement of expenses, under this Article or otherwise shall be on the Corporation.

Section 4. Non-Exclusivity of Rights.

The rights to indemnification and to the advancement of expenses conferred in this Article shall not be exclusive of any other right which any person may have or hereafter acquire under any statute, the Corporation's Certificate of Incorporation as amended from time to time, these Bylaws, any agreement, any vote of stockholders or disinterested directors or otherwise.

Section 5. Insurance.

The Corporation may maintain insurance, at its expense, to protect itself and any director, officer, employee or agent of the Corporation or another corporation, partnership, joint venture, trust or other enterprise against any expense, liability or loss, whether or not the Corporation would have the power to indemnify such person against such expense, liability or loss under the Delaware General Corporation Law.

Section 6. Indemnification of Employees and Agents of the Corporation.

The Corporation may grant rights to indemnification and to the advancement of expenses to any employee or agent of the Corporation to the fullest extent of the provisions of this Article with respect to the indemnification and advancement of expenses of directors and officers of the Corporation.

Section 7. Nature of Rights.

The rights conferred upon Indemnitees in this Article shall be contract rights and such rights shall continue as to an Indemnitee who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the Indemnitee's heirs, executors and administrators. Any amendment, alteration or repeal of this Article VII that adversely affects any right of an Indemnitee or its successors shall be prospective only and shall not limit or eliminate any such right with respect to any proceeding involving any occurrence or alleged occurrence of any action or omission to act that took place prior to any such amendment, alteration or repeal.

Section 9. Severability.

If any word, clause, provision or provisions of this Article shall be held to be invalid, illegal or unenforceable for any reason whatsoever: (i) the validity, legality and enforceability of the remaining provisions of this Article (including, without limitation, each portion of any section of this Article containing any such provision held to be invalid, illegal or unenforceable, that is not itself held to be invalid, illegal or unenforceable) shall not in any way be affected or impaired thereby; and (ii) to the fullest extent possible, the provisions of this Article (including, without limitation, each such portion of any section of this Article containing any such provision held to be invalid, illegal or unenforceable) shall be construed so as to give effect to the intent manifested by the provision held invalid, illegal or unenforceable.

ARTICLE VIII - CERTAIN TRANSACTIONS

Section 1. Transactions with Interested Parties.

No contract or transaction between the Corporation and one or more of its directors or officers, or between the Corporation and any other corporation, partnership, association, or other organization in which one or more of its directors or officers are directors or officers, or have a financial interest, shall be void or voidable solely for this reason, or solely because the director or officer is present at or participates in the meeting of the Board or committee thereof which authorizes the contract or transaction or solely because the votes of such director or officer are counted for such purpose, if:

(a) The material facts as to his or her relationship or interest and as to the contract or transaction are disclosed or are known to the Board of Directors or the committee, and the Board or committee in good faith authorizes the contract or transaction by the affirmative votes of a majority of the disinterested directors, even though the disinterested directors be less than a quorum; or

(b) The material facts as to his or her relationship or interest and as to the contract or transaction are disclosed or are known to the stockholders entitled to vote thereon, and the contract or transaction is specifically approved in good faith by vote of the stockholders; or

(c) The contract or transaction is fair as to the Corporation as of the time it is authorized, approved or ratified, by the Board of Directors, a committee thereof, or the stockholders.

Section 2. Quorum.

Common or interested directors may be counted in determining the presence of a quorum at a meeting of the Board of Directors or of a committee which authorizes the contract or transaction.

ARTICLE IX - MISCELLANEOUS

Section 1. Facsimile Signatures.

In addition to the provisions for use of facsimile signatures elsewhere specifically authorized in these Bylaws, facsimile signatures of any officer or officers of the Corporation may be used whenever and as authorized by the Board of Directors or a committee thereof.

Section 2. Corporate Seal.

The Board of Directors may provide a suitable seal, containing the name of the Corporation, which seal shall be in the charge of the Secretary. If and when so directed by the Board of Directors or a committee thereof, duplicates of the seal may be kept and used by the Treasurer or by an Assistant Secretary or Assistant Treasurer.

Section 3. Reliance upon Books, Reports and Records.

Each director, each member of any committee designated by the Board of Directors, and each officer of the Corporation shall, in the performance of his or her duties, be fully protected in relying in good faith upon the books of account or other records of the Corporation and upon such information, opinions, reports or statements presented to the Corporation by any of its officers or employees, or committees of the Board of Directors so designated, or by any other person as to matters which such director, committee member or officer reasonably believes are within such other person's professional or expert competence and who has been selected with reasonable care by or on behalf of the Corporation.

Section 4. Fiscal Year.

Except as otherwise determined by the Board of Directors from time to time, the fiscal year of the Corporation shall end on the last day of December of each year.

Section 5. Time Periods.

In applying any provision of these Bylaws which requires that an act be done or not be done a specified number of days prior to an event or that an act be done during a period of a specified number of days prior to an event, calendar days shall be used, the day of the doing of the act shall be excluded, and the day of the event shall be included.

Section 6. Pronouns.

Whenever the context may require, any pronouns used in these Bylaws shall include the corresponding masculine, feminine or neuter forms.

Section 7. Interpretation.

To the fullest extent permitted by law, the Board of Directors shall have the power to interpret all of the terms and provisions of these Bylaws, which interpretation shall be conclusive.

ARTICLE X - AMENDMENTS

These Bylaws may be amended or repealed by the affirmative vote of a majority of the Whole Board or by the stockholders by the affirmative vote of seventy-five percent (75%) of the outstanding voting power of the then-outstanding shares of capital stock of the Corporation, entitled to vote generally in the election of directors, at any meeting at which a proposal to amend or repeal these Bylaws is properly presented.

Exhibit 4.1

ZQ|CERT#|COY|CLS|RGSTRY|ACCT#|TRANSTYPE|RUN#|TRANS#

COMMON STOCK

PAR VALUE $0.00001

COMMON STOCK

THIS CERTIFICATE IS TRANSFERABLE IN CANTON, MA, JERSEY CITY, NJ AND COLLEGE STATION, TX

aspen aerogels

Certificate Number

ZQ00000000

Shares

000000**************

000000**************

****000000****************

*****000000***************

******000000***************

ASPEN AEROGELS, INC.

INCORPORATED UNDER THE LAWS OF THE STATE OF DELAWARE

THIS CERTIFIES THAT

MR. SAMPLE & MRS. SAMPLE & MR. SAMPLE & MRS. SAMPLE

CUSIP 04523Y 10 5

SEE REVERSE FOR CERTAIN DEFINITIONS

is the owner of

ZERO HUNDRED THOUSAND ZERO HUNDRED AND ZERO

FULLY-PAID AND NON-ASSESSABLE SHARES OF COMMON STOCK OF

Aspen Aerogels, Inc. (hereinafter called the "Company"), transferable on the books of the Company in person or by duly authorized attorney, upon surrender of this Certificate properly endorsed. This Certificate and the shares represented hereby, are issued and shall be held subject to all of the provisions of the Certificate of Incorporation, as amended, and the By-Laws, as amended, of the Company (copies of which are on file with the Company and with the Transfer Agent), to all of which each holder, by acceptance hereof, assents. This Certificate is not valid unless countersigned and registered by the Transfer Agent and Registrar.

Witness the facsimile seal of the Company and the facsimile signatures of its duly authorized officers.

President and Chief Executive Officer

Vice President, Chief Financial Officer and Treasurer

ASPEN AEROGELS, INC. SEAL 2008 DELAWARE

DATED DD-MMM-YYYY

COUNTERSIGNED AND REGISTERED:
COMPUTERSHARE TRUST COMPANY, N.A.
TRANSFER AGENT AND REGISTRAR,

By _____
AUTHORIZED SIGNATURE

1234567

ASPEN AEROGELS, INC.

THE COMPANY WILL FURNISH WITHOUT CHARGE TO EACH SHAREHOLDER WHO SO REQUESTS, A SUMMARY OF THE POWERS, DESIGNATIONS, PREFERENCES AND RELATIVE, PARTICIPATING, OPTIONAL OR OTHER SPECIAL RIGHTS OF EACH CLASS OF STOCK OF THE COMPANY AND THE QUALIFICATIONS, LIMITATIONS OR RESTRICTIONS OF SUCH PREFERENCES AND RIGHTS, AND THE VARIATIONS IN RIGHTS, PREFERENCES AND LIMITATIONS DETERMINED FOR EACH SERIES, WHICH ARE FIXED BY THE CERTIFICATE OF INCORPORATION OF THE COMPANY, AS AMENDED, AND THE RESOLUTIONS OF THE BOARD OF DIRECTORS OF THE COMPANY, AND THE AUTHORITY OF THE BOARD OF DIRECTORS TO DETERMINE VARIATIONS FOR FUTURE SERIES. SUCH REQUEST MAY BE MADE TO THE OFFICE OF THE SECRETARY OF THE COMPANY OR TO THE TRANSFER AGENT. THE BOARD OF DIRECTORS MAY REQUIRE THE OWNER OF A LOST OR DESTROYED STOCK CERTIFICATE, OR HIS LEGAL REPRESENTATIVES, TO GIVE THE COMPANY A BOND TO INDEMNIFY IT AND ITS TRANSFER AGENTS AND REGISTRARS AGAINST ANY CLAIM THAT MAY BE MADE AGAINST THEM ON ACCOUNT OF THE ALLEGED LOSS OR DESTRUCTION OF ANY SUCH CERTIFICATE.

The following abbreviations, when used in the inscription on the face of this certificate, shall be construed as though they were written out in full according to applicable laws or regulations:

TEN COM	- as tenants in common	UNIF GIFT MIN ACT	- _____ Custodian _____ (Cust) (Minor) under Uniform Gifts to Minors Act _____ (State)
TEN ENT	- as tenants by the entireties		
JT TEN	- as joint tenants with right of survivorship and not as tenants in common	UNIF TRF MIN ACT	- _____ Custodian (until age _____) (Cust) _____ under Uniform Transfers to Minors Act _____ (Minor) (State)

Additional abbreviations may also be used though not in the above list.

PLEASE INSERT SOCIAL SECURITY OR OTHER IDENTIFYING NUMBER OF ASSIGNEE

For value received, _____ hereby sell, assign and transfer unto

_____

(PLEASE PRINT OR TYPEWRITE NAME AND ADDRESS, INCLUDING POSTAL ZIP CODE, OF ASSIGNEE)

_____

_____

_____ Shares

of the common stock represented by the within Certificate, and do hereby irrevocably constitute and appoint

_____ Attorney

to transfer the said stock on the books of the within-named Company with full power of substitution in the premises.

Dated: _____ 20 _____

Signature: _____

Signature: _____

Notice: The signature to this assignment must correspond with the name as written upon the face of the certificate, in every particular, without alteration or enlargement, or any change whatever.

Signature(s) Guaranteed: Medallion Guarantee Stamp

THE SIGNATURE(S) SHOULD BE GUARANTEED BY AN ELIGIBLE GUARANTOR INSTITUTION (Banks, Stockbrokers, Savings and Loan Associations and Credit Unions) WITH MEMBERSHIP IN AN APPROVED SIGNATURE GUARANTEE MEDALLION PROGRAM, PURSUANT TO S.E.C. RULE 17Ad-15.

The IRS requires that we report the cost basis of certain shares acquired after January 1, 2011. If your shares were covered by the legislation and you have sold or transferred the shares and requested a specific cost basis calculation method, we have processed as requested. If you did not specify a cost basis calculation method, we have defaulted to the first in, first out (FIFO) method. Please visit our website or consult your tax advisor if you need additional information about cost basis.

If you do not keep in contact with us or do not have any activity in your account for the time periods specified by state law, your property could become subject to state unclaimed property laws and transferred to the appropriate state.

SECURITY INSTRUCTIONS

THIS IS WATERMARKED PAPER - DO NOT ACCEPT WITHOUT NOTING WATERMARK. HOLD TO LIGHT TO VERIFY WATERMARK.

15345207

Exhibit 4.7

EXECUTION COPY

THIS WARRANT AND THE CAPITAL STOCK ISSUABLE UPON EXERCISE HEREOF HAVE BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR IN CONNECTION WITH, THE SALE OR DISTRIBUTION THEREOF AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED. SUCH SECURITIES MAY NOT BE SOLD, OFFERED FOR SALE, PLEDGED, HYPOTHECATED, DISTRIBUTED, TRANSFERRED OR OTHERWISE DISPOSED EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY STATING THAT REGISTRATION IS NOT REQUIRED UNDER SAID ACT.

THE SALE, ASSIGNMENT, HYPOTHECATION, PLEDGE, ENCUMBRANCE OR OTHER DISPOSITION AND VOTING OF ANY OF THE SHARES OF SERIES C PREFERRED STOCK OF THE COMPANY ACQUIRED PURSUANT TO THE EXERCISE OF THIS WARRANT ARE RESTRICTED BY THE TERMS OF THE SIXTH AMENDED AND RESTATED STOCKHOLDERS' AGREEMENT (THE " STOCKHOLDERS' AGREEMENT "), DATED AS OF MARCH 28, 2013, AMONG THE COMPANY AND CERTAIN OF ITS STOCKHOLDERS. THE COMPANY WILL NOT REGISTER THE TRANSFER OF SUCH SHARES OF SERIES C PREFERRED STOCK ON THE BOOKS OF THE COMPANY UNLESS AND UNTIL THE TRANSFER HAS BEEN MADE IN COMPLIANCE WITH THE TERMS OF THE STOCKHOLDERS' AGREEMENT, A COPY OF WHICH WILL BE PROVIDED AT NO COST TO THE HOLDER HEREOF UPON WRITTEN REQUEST TO THE COMPANY.

Warrant No. __
Date of Issuance: _____, 2013

Number of Shares: _____
(subject to adjustment)

ASPEN AEROGELS, INC.

SERIES C PREFERRED STOCK PURCHASE WARRANT

ASPEN AEROGELS, INC. (the " Company "), for value received, hereby certifies that [REGISTERED HOLDER], or its registered assigns (the " Registered Holder "), is entitled, subject to the terms set forth herein, to purchase from the Company, at any time after the date hereof and on or before March 28, 2023 (the " Expiration Date "), up to [ ] ([ ]) shares, as adjusted from time to time pursuant to the provisions of this Warrant, of Series C Preferred Stock of the Company, par value $0.00001 per share, at an exercise price of $0.00001 per share. As used herein, " Series C Preferred Stock " shall mean the shares of preferred stock designated as Series C Convertible Preferred Stock, par

value $0.00001 per share, as of the Date of Issuance of this Warrant under the Company's Fourth Amended and Restated Certificate of Incorporation, as amended (the " Certificate of Incorporation "). The security and the specific shares issuable upon exercise of this Warrant and the exercise price per share, each as adjusted from time to time pursuant to the provisions of this Warrant, are sometimes hereinafter referred to as the " Underlying Stock ," the " Warrant Stock " and the " Exercise Price ," respectively.

This Warrant is one of several warrants issued pursuant to that certain Note and Warrant Purchase Agreement, dated March 28, 2013 between the Company and the purchasers signature thereto (the " Agreement "). Capitalized terms not otherwise defined herein shall have the meanings ascribed to such terms in the Agreement.

1. EXERCISE OF WARRANT

Section 1.1. Payment . Subject to compliance with the terms and conditions of this Warrant and applicable securities laws, this Warrant may be exercised by the Registered Holder, in whole or in one or more parts, at any time or from time to time, on or before the Expiration Date by the delivery of the form of Notice of Exercise attached hereto as Exhibit A (the " Notice of Exercise "), duly executed by the Registered Holder or by such Registered Holder's duly authorized attorney, to the principal office of the Company, or such other office or agency as the Company may designate, accompanied by this Warrant and payment in full of the aggregate Exercise Price payable in respect of the number of shares of Warrant Stock purchased upon such exercise (the " Purchase Price "); *provided, however* , that if the Registered Holder is subject to HSR Act Restrictions (as defined in Section 1.4 below), the Purchase Price shall be paid to the Company within five business days of the termination of all HSR Act Restrictions. The Purchase Price may be paid by cash, check or wire transfer of immediately available funds to the Company. Notwithstanding any provision of this Warrant to the contrary, however, this Warrant may not be exercised if such exercise, either alone or together with the exercise of other Warrants or acquisitions of stock of the Company would (i) if the Registered Holder (other than GKFF Ventures I, LLC and their affiliates, successors and assigns (" GKFF Ventures ") and Reservoir Capital Group, L.L.C. and their affiliates, successors and assigns (" Reservoir ")) is not a "5-percent shareholder" (within the meaning of Section 382 of the Internal Revenue Code of 1986, as amended (the " Code "), cause the Registered Holder to become a 5-percent shareholder, (ii) if the Registered Holder (other than GKFF Ventures and Reservoir) is a 5-percent shareholder, cause the percentage of stock of the Company treated as owned by the Registered Holder under Section 382 of the Code to increase, or (iii) cause the Registered Holder to own more than 50% of the stock of the Company for purposes of Section 382 of the Code; provided , however , that the limitations described above shall not apply to any exercise in connection with an IPO, a Sale of the Corporation (as defined in the Certificate of Incorporation) or Liquidation (as defined in the Certificate of Incorporation) of the Company and, provided further , that the limitations described in clauses (i) and (ii) above may be waived by the Company's Board of Directors with respect to a Registered Holder. Each Registered Holder hereby agrees that, prior to exercising its Warrant(s) or a portion thereof, it shall first provide written notice to GKFF Ventures and Reservoir at least three business days prior to such exercise, which notice shall specify the number of shares of Warrant Stock intended to be exercised. Any exercise of this Warrant other than in accordance with the foregoing limitation shall be void ab initio.

Section 1.2. Net Issue Exercise .

(a) In lieu of exercising this Warrant in the manner provided in Section 1.1, the Registered Holder may elect to receive shares of Warrant Stock equal to the value of this Warrant (or the portion thereof being canceled) by surrender of this Warrant at the principal office of the Company together with the Notice of Exercise duly executed by the Registered Holder or such Registered Holder's duly authorized attorney, in which event the Company shall issue to the Registered Holder a number of shares of Warrant Stock computed using the following formula:

$$X = \frac{Y (A - B)}{A}$$

Where X = The number of shares of Warrant Stock to be issued to the Registered Holder.

Y = The number of shares of Warrant Stock exercised under this Warrant (as adjusted to the date of such calculation).

A = The Fair Market Value of one share of Warrant Stock (as adjusted to the date of such calculation).

B = The Exercise Price (as adjusted to the date of such calculation).

All references herein to an "exercise" of the Warrant in this Warrant shall include an exchange pursuant to this Section 1.2.

(b) Subject to Section 1.3(b), for purposes of this Warrant, the term " Fair Market Value " of a share of Warrant Stock as of a particular date shall mean:

(i) If the Underlying Stock is traded on a securities exchange, the Fair Market Value shall be deemed to be the average of the closing prices thereof on such exchange over the 10 trading days ending immediately prior to (but not including) the applicable date of valuation;

(ii) If the Underlying Stock is actively traded over-the-counter, the Fair Market Value shall be deemed to be the average of the closing bid prices over the 10-day period ending immediately prior to (but not including) the applicable date of valuation;

(iii) If there is no active public market for the Underlying Stock but there is an active public market for a class or series of capital stock of the Company into which the Underlying Stock is convertible, then if such class or series of capital stock is:

(A) traded on a securities exchange, the Fair Market Value shall be deemed to be the average of the closing prices of a share of such class or series of capital stock of the Company on such exchange over the 10 trading days ending immediately prior to (but not including) the applicable date of valuation multiplied by the number of shares of such class or series of capital stock into which one share of the Underlying Stock is convertible, or

(B) actively traded over-the-counter, the Fair Market Value shall be deemed to be the average of the closing bid prices for a share of such class or series of capital stock of the Company over the 10-day period ending immediately prior to (but not including) the applicable date of valuation multiplied by the number of shares of such class or series of capital stock into which one share of the Underlying Stock is convertible; or

(iv) If there is no active public market for the Underlying Stock or any other class or series of capital stock of the Company into which the Underlying Stock is convertible, the Fair Market Value shall be the highest price per share which the Company could obtain on the date of calculation from a willing buyer (not a current employee or director) for shares of Underlying Stock sold by the Company, from authorized but unissued shares, as reasonably determined in good faith by the Board of Directors.

If the Registered Holder hereof does not agree with the determination of Fair Market Value as determined by the Board of Directors, the Company and the Registered Holder hereof shall negotiate an appropriate Fair Market Value. If after ten (10) days, the Company and the Registered Holder cannot agree, then the Registered Holder may request that the Fair Market Value be determined by a valuation firm of national reputation selected by the Company and reasonably acceptable to the Registered Holder. The fees and expenses of such valuation firm shall be borne by the Company unless the Fair Market Value determined by such valuation firm is equal to or less than the Fair Market Value as determined by the Company, in which event the fees and expenses of such valuation firm shall be borne by the Registered Holder hereof. Notwithstanding the foregoing, if a two-thirds majority of the holders of Warrants issued pursuant to the Agreement outstanding at such date agree with the determination of Fair Market Value as determined by the Board of Directors, then such determination of Fair Market Value shall be final and binding upon such Registered Holder.

Section 1.3 Significant Transactions .

(a) The Company shall provide the Registered Holder with written notice of the Company's intention to:

(i) raise capital by selling shares of the Underlying Stock (or shares of capital stock into which Underlying Stock is convertible) in a firm commitment underwritten initial public offering (an " IPO " and, such notice of an IPO, an " IPO Notice "), or

(ii) enter into a definitive agreement providing for (A) a merger or consolidation of the Company or any of its subsidiaries with or into another corporation (with respect to which less than a majority of the outstanding voting power or equity securities of the surviving or consolidated corporation immediately following such event is held by persons or entities who were stockholders of the Company immediately prior to such event); (B) the sale, license, disposition or other transfer of all or substantially all of the properties and assets of the Company or any of its subsidiaries; (C) except as a result of the exercise of the Warrants by the Warrant holders or the conversion of either the Notes or the Prior Notes by the holders of such notes, (x) any acquisition by any person (or group of affiliated or associated persons) of beneficial ownership of a majority of the equity of the Company or of any subsidiary (whether or not newly-issued shares) in a single transaction or a series of related transactions; or (y) any other similar change of control of fifty percent (50%) or more of the outstanding voting power of the Company or any subsidiary (each, an " Acquisition " and, such notice of an Acquisition, an " Acquisition Notice "),

with such notice delivered to the Registered Holder at least five but not more than 90 days before the anticipated date of the filing with the Securities and Exchange Commission (the " SEC ") of the registration statement associated with an IPO or the anticipated date of execution of the definitive agreement providing for an Acquisition, as applicable. An IPO Notice or Acquisition Notice, as applicable, shall include a brief summary of the transaction, the contemplated timeframe for completion, the material terms thereof and the consideration payable in respect of one share of Underlying Stock (or shares of capital stock into which Underlying Stock is convertible), in each case to the extent known by the Company at such time. To the extent information with respect to the consideration payable in respect of one share of Underlying Stock (or shares of capital stock into which Underlying Stock is convertible) in such transaction is not definitively known at the time of delivery of such notice, the Company shall provide a reasonable estimate thereof (which may include a range), and shall promptly supplement such notice if and at such time as such estimate or any other information included in the original notice is no longer reasonable or materially changes. The Registered Holder shall provide notice to the Company within five business days of receipt of the IPO Notice or the Acquisition Notice, as applicable, if the Registered Holder will exercise this Warrant pursuant to this Section 1.3 in connection with the IPO or the Acquisition, as applicable. If the Registered Holder is electing to exercise this Warrant in part or in full, such notice shall be given pursuant to the Notice of Exercise.

(b) An exercise of the Warrant pursuant to this Section 1.3 shall be effected in accordance with Section 1.2, except as otherwise set forth in this Section 1.3. Notwithstanding whether (i) an IPO Notice has been delivered to the Registered Holder or any other provision of this Warrant to the contrary, if the Registered Holder decides to exercise this Warrant while a registration statement is on file with the SEC in connection with the IPO, or (ii) an Acquisition Notice has been delivered to the Registered Holder or any other provision of this Warrant to the contrary, if the Registered Holder decides to exercise this Warrant following the execution of a definitive agreement providing for an

Acquisition but prior to the consummation of the Acquisition, this Warrant shall automatically be deemed exercised immediately prior to the consummation of the IPO or Acquisition, as applicable, and the Fair Market Value of a share of Warrant Stock will be, (x) in the context of an IPO, the price at which one share of Underlying Stock was sold to the public in the IPO, or if the Underlying Stock is not the capital stock being offered to the public in the IPO, the price at which one share of the capital stock being offered to the public in the IPO was sold to the public in the IPO multiplied by the number of shares of such capital stock into which one share of Underlying Stock is then convertible, or (y) in the context of an Acquisition, the deemed value of the consideration payable in respect of one share of Underlying Stock to be received by the holders of such stock pursuant to the definitive agreement providing for such Acquisition.

(c) If the Registered Holder has elected to exercise this Warrant pursuant to this Section 1.3 while a registration statement is on file with the SEC in connection with an IPO or prior to the consummation of the Acquisition, as applicable, and the transaction triggering the delivery of an IPO Notice or Acquisition Notice, as applicable, is not consummated, then the exercise of this Warrant shall not be effective unless the Registered Holder confirms in writing the Registered Holder's intention to go forward with the exercise of this Warrant.

Section 1.4 HSR Act . The Company hereby acknowledges that exercise of this Warrant by the Registered Holder may subject the Company and/or the Registered Holder to the filing requirements under the Hart-Scott-Rodino Antitrust Improvements Act of 1976 (the " HSR Act ") and that the Registered Holder may be prevented from exercising this Warrant until the expiration or early termination of all waiting periods imposed by the HSR Act (" HSR Act Restrictions "). If on or before the Expiration Date the Registered Holder has delivered the Notice of Exercise to the Company and the Registered Holder has not been able to complete the exercise of this Warrant prior to the Expiration Date because of HSR Act Restrictions, the Registered Holder shall be entitled to complete the process of exercising this Warrant as noted in the Notice of Exercise delivered prior to the Expiration Date in accordance with the procedures set forth herein notwithstanding the fact that completion of such exercise would take place after the Expiration Date or the completion of the IPO or an Acquisition, as applicable.

Section 1.5 Effective Time of Exercise . Subject to Section 1.3, the exercise of this Warrant shall be deemed to have been effected immediately prior to the close of business on the day on which this Warrant shall have been surrendered to the Company as provided in Section 1.1 or Section 1.2 above, as applicable. However, if the Registered Holder is subject to HSR Act filing requirements (a) this Warrant shall be deemed to have been exercised on the date immediately following the date of the expiration of all HSR Act Restrictions and (b) for the purposes of the net issue provisions of Section 1.2, the Fair Market Value of one share of Warrant Stock shall be determined as of the date of the Notice of Exercise. The person entitled to receive the shares of Warrant Stock issuable upon exercise of this Warrant shall be treated for all purposes as the holder of record of such shares as of the close of business on the date the Registered Holder is deemed to have exercised this Warrant.

Section 1.6. Stock Certificates; Fractional Shares; Partial Exercise .

(a) As soon as practicable on or after the date of exercise determined in accordance with Section 1.5, the Company shall issue the shares of Warrant Stock and, unless the Registered Holder requests that such shares be uncertificated, deliver to the person or persons entitled to receive the shares of Warrant Stock issuable upon exercise hereof, a certificate or certificates for the number of whole shares of Warrant Stock issuable upon such exercise.

(b) No fractional shares or scrip representing fractional shares shall be issued upon an exercise of this Warrant. In lieu of any fraction shares which would otherwise be issuable, the Company shall pay cash equal to the product of such fraction multiplied by the Fair Market Value of one share of Warrant Stock on the date of exercise determined in accordance with Section 1.5.

(c) In case of any partial exercise of this Warrant, the Company shall cancel this Warrant and shall execute and deliver a new warrant or warrants (dated the date hereof) of like tenor and with the same date, calling in the aggregate on the face or faces thereof for the number of shares of Warrant Stock equal (without giving effect to any adjustment thereof) to the number of such shares called for on the face of this Warrant minus the number of such shares purchased by the Registered Holder upon such exercise as provided in this Section 1 (without giving effect to any adjustment thereof).

Section 1.7. Stockholders' Agreement . If the Registered Holder is not already a party thereto, the Registered Holder shall also execute a joinder agreement to each of the Stockholders' Agreement and the Sixth Amended and Restated Registration Rights Agreement, dated as of June 11, 2012, as may be amended and modified from time to time.

Section 1.8. Payment of Taxes . The Company shall pay all expenses, taxes and other governmental charges with respect to the issue or delivery of the shares of Warrant Stock, unless such tax or charge is imposed by law upon the Registered Holder.

2. ADJUSTMENT OF NUMBER OF SHARES AND EXERCISE PRICE

The number of shares of Warrant Stock issuable upon exercise of this Warrant and the Exercise Price are subject to adjustment as follows:

Section 2.1. Adjustment for Stock Splits, Stock Subdivisions or Combinations of Shares . If all or any portion of the outstanding shares of the Underlying Stock shall be subdivided into a greater number of shares, the Exercise Price in effect immediately prior to such subdivision shall simultaneously with the effectiveness of such subdivision be proportionately reduced. If all or any portion of the outstanding shares of the Underlying Stock shall be combined into a smaller number of shares, the Exercise Price in effect immediately prior to such combination shall, simultaneously with the effectiveness of such combination, be proportionately increased. When any adjustment is required to be made in the Exercise Price, the number of shares of Warrant Stock purchasable upon the exercise of this Warrant shall be changed to the number determined by dividing (a) an amount equal to the number of shares issuable upon the exercise of this Warrant immediately prior to such adjustment, multiplied by the Exercise Price in effect immediately prior to such adjustment, by (b) the Exercise Price in effect immediately after such adjustment.

Section 2.2. Adjustment for Dividends or Distributions of Stock or Other Securities or Property . In case the Company shall make or issue, or shall fix a record date for the determination of eligible holders entitled to receive, a dividend or other distribution with respect to all or any portion of the outstanding shares of the Underlying Stock payable in (a) securities of the Company or (b) assets (excluding cash dividends paid or payable solely out of retained earnings), then, in each such case, the Registered Holder on exercise hereof at any time after the consummation, effective date or record date of such dividend or other distribution, shall receive, in addition to the shares of Warrant Stock issuable on such exercise prior to such date, and without the payment of additional consideration therefor, the securities or such other assets of the Company to which the Registered Holder would have been entitled upon such date if the Registered Holder had exercised this Warrant on the date hereof and had thereafter, during the period from the date hereof to and including the date of such exercise, retained such shares and/or all other additional stock available by it as aforesaid during such period giving effect to all adjustments called for by this Section 2.

Section 2.3. Reclassification . If the Company, by reclassification of securities or otherwise, shall change the Underlying Stock into the same or a different number of securities of any other class or classes, this Warrant shall thereafter represent the right to acquire such number and kind of securities as would have been issuable as the result of such change with respect to the Underlying Stock immediately prior to such reclassification or other change and the Exercise Price therefore shall be appropriately adjusted, all subject to further adjustment as provided in this Section 2.

Section 2.4. Adjustment for Capital Reorganization, Merger or Consolidation . In case of any capital reorganization of the capital stock of the Company (other than a combination, reclassification, exchange or subdivision of shares otherwise provided for herein), any Acquisition or any other merger or consolidation of the Company with or into another organization, or the sale of all or substantially all the assets of the Company then, and in each such case, as a part of such transaction, lawful provision shall be made so that the Registered Holder shall thereafter be entitled to receive upon exercise of this Warrant, during the period specified herein and upon payment of the applicable Purchase Price, the number of shares of stock or other securities or property of the successor organization resulting from such transaction that a holder of the securities deliverable upon exercise of this Warrant would have been entitled to receive in such transaction if this Warrant had been exercised immediately before such transaction, all subject to further adjustment as provided in this Section 2. The foregoing provisions of this Section 2.4 shall similarly apply to successive acquisitions, reorganizations, consolidations, mergers, sales, transfers and similar transactions and to the stock or securities of any other organizations that are at the time receivable upon the exercise of this Warrant. If the per-share consideration payable to the Registered Holder for shares in connection with any such transaction is in a form other than cash, then the provisions of Section 1.2(b) shall be applied except that

each reference to Warrant Stock shall be replaced by the consideration payable in connection with such transaction. If the provisions of Section 1.2(b) cannot be applied to value such consideration, then the value of such consideration shall be determined in good faith by the Company's Board of Directors. In all events, appropriate adjustment, as determined in good faith by the Company's Board of Directors, shall be made in the application of the provisions of this Warrant with respect to the rights and interests of the Registered Holder after the transaction, to the end that the provisions of this Warrant shall be applicable after that event, as near as reasonably may be, in relation to any shares or other property deliverable after that event upon exercise of this Warrant. Notwithstanding the foregoing, if the Company's Board of Directors and a two-thirds majority of the holders of Warrants issued pursuant to the Agreement then outstanding agree, in any such Acquisition or any other acquisition, reorganization, merger, consolidation, sale or transfer described above, the Warrants issued pursuant to the Agreement will be converted into the right to receive the consideration that the Warrant Stock would receive in such transaction and upon the consummation of such transaction the Warrants will cease to be outstanding.

Section 2.5 Certificate as to Adjustments . When any adjustment in the Exercise Price or the number or type of shares issuable upon exercise of this Warrant is required to be made pursuant to this Section 2, an authorized officer of the Company shall compute such adjustment in accordance with the terms of this Warrant and prepare a certificate setting forth (a) a brief statement of the facts upon which such adjustment is based, (b) the Exercise Price after such adjustment and (c) the kind and amount of stock into which this Warrant shall be exercisable after such adjustment. The Company shall promptly send (by facsimile and by either first class mail, postage prepaid or overnight delivery) a copy of each such certificate to the Registered Holder.

3. TRANSFERS

Section 3.1 Unregistered Securities . Each holder of this Warrant acknowledges that this Warrant and the Warrant Stock have not been registered under the Securities Act of 1933, as amended (the " Securities Act "), and agrees not to sell, offer for sale, pledge, hypothecate, distribute, transfer or otherwise dispose of this Warrant or any Warrant Stock issued upon its exercise in the absence of (a) an effective registration statement under the Securities Act as to this Warrant or such Warrant Stock and registration or qualification of this Warrant or such Warrant Stock under any applicable U.S. federal or state securities law then in effect, or (b) an opinion of counsel (which may be counsel for the Company), satisfactory to the Company, that such registration and qualification are not required. Each certificate or other instrument for Warrant Stock issued upon the exercise of this Warrant pursuant to Section 1.6(a), or in the case of uncertificated shares, the ledger entry reflecting the issuance of such Warrant Stock, shall bear a legend substantially as follows:

"THE SHARES REPRESENTED BY THIS CERTIFICATE HAVE BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR IN CONNECTION WITH, THE SALE OR DISTRIBUTION THEREOF AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED. SUCH SHARES MAY NOT BE SOLD, OFFERED FOR SALE, PLEDGED, HYPOTHECATED,

DISTRIBUTED, TRANSFERRED OR OTHERWISE DISPOSED OF IN THE ABSENCE OF SUCH REGISTRATION OR UNLESS THE COMPANY RECEIVES AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY STATING THAT SUCH SALE OR TRANSFER IS EXEMPT FROM THE REGISTRATION AND PROSPECTUS DELIVERY REQUIREMENTS OF SAID ACT.

THE SALE, ASSIGNMENT, HYPOTHECATION, PLEDGE, ENCUMBRANCE OR OTHER DISPOSITION AND VOTING OF SUCH SHARES ARE RESTRICTED BY THE TERMS OF THE SIXTH AMENDED AND RESTATED STOCKHOLDERS' AGREEMENT, DATED AS OF MARCH 28, 2013, AMONG THE COMPANY AND CERTAIN OF ITS STOCKHOLDERS. THE COMPANY WILL NOT REGISTER THE TRANSFER OF SUCH SHARES ON THE BOOKS OF THE COMPANY UNLESS AND UNTIL THE TRANSFER HAS BEEN MADE IN COMPLIANCE WITH THE TERMS OF THE STOCKHOLDERS' AGREEMENT, A COPY OF WHICH WILL BE PROVIDED AT NO COST TO THE HOLDER HEREOF UPON WRITTEN REQUEST TO THE COMPANY."

Section 3.2 Transferability .

(a) Subject to the provisions of this Warrant, including Sections 3.1 and 6.5, and the Stockholders' Agreement and compliance with all applicable securities laws, this Warrant and all rights and obligations hereunder may be transferred to any person, in whole or in part, on the books of the Company maintained pursuant to Section 3.3 upon surrender of the Warrant with a properly executed form of Assignment attached hereto as Exhibit B (the " Form of Assignment ") at the principal office of the Company. Upon the proper surrender by the Registered Holder of the Warrant, the Company will issue and deliver to or upon the order of the Registered Holder a new Warrant or Warrants of like tenor as such Registered Holder may direct, calling in the aggregate on the face or faces thereof for the number of shares of Warrant Stock called for on the face of the Warrant so surrendered; provided, however, that no such transfer may be made to any direct competitor of the Company, which shall mean a Person engaged in the research, manufacture or sale of aerogels, aerogel based products or insulation products, other than in connection with a Sale of the Corporation (as defined in the Certificate of Incorporation). The Company may issue stop transfer instructions to its transfer agent in connection with the foregoing restrictions.

(b) Each taker and holder of this Warrant, by taking or holding the same, consents and agrees that when this Warrant shall have been so endorsed, the person in possession of this Warrant may be treated by the Company, and all other persons dealing with this Warrant, as the absolute owner hereof and as the Registered Holder for any purpose and as the person entitled to exercise the rights represented hereby, any notice to the contrary notwithstanding.

Section 3.3 Warrant Register . The Company will maintain a register containing the names and addresses of the Registered Holder of this Warrant, and will promptly update such register to reflect any transfers in compliance with the terms hereof. Any Registered Holder may change such Registered Holder's address as shown on the warrant register by written notice to the Company requesting such change.

4. COVENANTS OF THE COMPANY

Section 4.1 Reservation of Capital Stock . The Company hereby covenants that at all times there shall be reserved for issuance and delivery upon exercise of this Warrant such number of shares of Underlying Stock as may be issuable from time to time upon exercise hereof in full and any common stock of the Company issuable from time to time upon conversion of such Underlying Stock and, from time to time, will take all steps necessary to amend its Certificate of Incorporation to provide sufficient reserves of shares of Underlying Stock and common stock of the Company.

Section 4.2 No Impairment . The Company will not, by amendment of its Certificate of Incorporation or Bylaws, or through reorganization, consolidation, merger, dissolution, issue or sale of securities, sale of assets or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such action as may be necessary or appropriate in order to protect the rights of the Registered Holder against impairment.

Section 4.3 Replacement Warrants . Upon receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant, and, in the case of loss, theft or destruction, of such bond or indemnification as the Company may reasonably require, and, in the case of such mutilation, upon surrender and cancellation of this Warrant, the Company will issue, in lieu thereof, a new Warrant of like tenor.

5. NOTICES

Section 5.1 Record Dates . Notwithstanding the provisions of Section 1.3, in case:

(a) the Company shall set a record date for the holders of the Underlying Stock for the purpose of entitling or enabling them to receive any dividend or other distribution (excluding cash dividends paid or payable solely out of retained earnings), or to receive any right to subscribe for or purchase any shares of stock of any class or any other securities, or to receive any other right;

(b) of any capital reorganization of the Company, any reclassification of the capital stock of the Company, any consolidation or merger of the Company with or into another organization (other than a consolidation or merger in which the Company is the surviving entity), or any transfer of all or substantially all of the assets of the Company; or

(c) of the voluntary or involuntary dissolution, liquidation or winding-up of the Company,

then, and in each such case, the Company will mail or cause to be mailed to the Registered Holder of this Warrant a notice specifying, as the case may be, (i) the record date for the purpose of such dividend, distribution or right, and stating the amount and character of such dividend, distribution or right, or (ii) the effective date on which such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up is to take place, and the time, if any is to be fixed, as of which the holders of record of capital stock of the Company (or such other securities at the time deliverable upon such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up) are to be determined and the material terms and conditions of the impending transaction. In each such case, the notice shall be provided at least five business days prior to the record date or effective date for the event specified in such notice, in each case in accordance with the provisions of Section 5.2.

Section 5.2 Generally . Unless otherwise provided herein, any notice required or permitted by this Warrant shall be in writing and shall be deemed sufficient upon delivery, when delivered personally or by overnight courier or sent by facsimile or electronic mail, or 48 hours after being deposited in the U.S. mail, as certified or registered mail, with postage prepaid, addressed to the party to be notified at such party's address as set forth on the signature page, or as subsequently modified by written notice.

6. MISCELLANEOUS

Section 6.1 No Rights or Liabilities as a Stockholder . This Warrant shall not entitle the Registered Holder to any voting rights or other rights as a stockholder of the Company. In the absence of affirmative action by the Registered Holder to purchase Warrant Stock by exercise of this Warrant, no provisions of this Warrant, and no enumeration herein of the rights or privileges of the Registered Holder hereof, shall cause the Registered Holder to be or have any rights of a stockholder of the Company for any purpose.

Section 6.2 Survival of Representations and Warranties . Unless otherwise set forth in this Warrant, the warranties, representations and covenants of the Company and the Registered Holder contained in or made pursuant to this Warrant shall survive the execution and delivery of this Warrant.

Section 6.3 Amendment and Modification . This Warrant is one in a series of Warrants issued pursuant to the Agreement and this Warrant may not be amended, modified or supplemented in any manner, whether by course of conduct or otherwise, except by an instrument in writing specifically designated as an amendment hereto, signed by the Company and a two-thirds majority of the holders of Warrants issued pursuant to the Agreement outstanding at the time of the amendment. Notwithstanding the foregoing, this Warrant may not be amended or terminated with respect to the Registered Holder without the written consent of the Registered Holder unless such amendment or termination applies to all holders of Warrants issued pursuant to the Agreement in the same fashion.

Section 6.4 Waiver . No failure or delay of any party in exercising any right or remedy hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any such right or power, or any abandonment or discontinuance of steps to enforce such right or power, or any course of conduct, preclude any other or further exercise thereof or the exercise of any other right or power. Any agreement on the part of a party hereto to waive any right or power hereunder shall be valid only if set forth in a written instrument executed and delivered by the Company and a two-thirds majority of the holders of Warrants issued pursuant to the Agreement outstanding at the time of the waiver. Notwithstanding the foregoing and except as provided otherwise herein, no provision, right or power under this Warrant may be waived with respect to the Registered Holder without the written consent of the Registered Holder unless such waiver applies to all holders of Warrants issued pursuant to the Agreement in the same fashion. The rights and remedies of the parties hereunder are cumulative and are not exclusive of any rights or remedies which they would otherwise have hereunder.

Section 6.5 Assignment; Successors and Assigns . This Warrant and any of the rights, interests or obligations under this Warrant may be assigned or delegated, in whole or in part, by operation of law or otherwise, by the Registered Holder in compliance with the terms of this Warrant, applicable securities laws and the Stockholders' Agreement. Subject to the preceding sentence, this Warrant will be binding upon, inure to the benefit of, and be enforceable by, the parties and their respective successors and assigns.

Section 6.6 Interpretation . When a reference is made in this Warrant to a Section or Exhibit such reference shall be to a Section or Exhibit of this Warrant unless otherwise indicated. The headings contained in this Warrant or in any Exhibit are for convenience of reference purposes only and shall not affect in any way the meaning or interpretation of this Warrant. All words used in this Agreement will be construed to be of such gender or number as the circumstances require. Any capitalized terms used in any Exhibit but not otherwise defined therein shall have the meaning as defined in this Warrant. All Exhibits annexed hereto or referred to herein are hereby incorporated in and made a part of this Warrant as if set forth herein. The word "including" and words of similar import when used in this Agreement will mean "including, without limitation," unless otherwise specified.

Section 6.7 Governing Law . This Warrant and all disputes or controversies arising out of or relating to this Warrant or the transactions contemplated hereby shall be governed by, and construed in accordance with, the internal laws of the State of Delaware, without regard to the laws of any other jurisdiction that might be applied because of the conflicts of laws principles of the State of Delaware.

Section 6.8 Severability . Whenever possible, each provision or portion of any provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision or portion of any provision of this Warrant is held to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, such invalidity, illegality or unenforceability shall not affect any other provision or portion of any provision in such jurisdiction, and this Warrant shall be reformed, construed and enforced in such jurisdiction as if such invalid, illegal or unenforceable provision or portion of any provision had never been contained herein.

Section 6.9 Counterparts . This Warrant may be executed in two or more counterparts, all of which shall be considered one and the same instrument and shall become effective when one or more counterparts have been signed by each of the parties and delivered to the other parties.

[The remainder of this page is intentionally left blank.]

IN WITNESS WHEREOF , the parties hereto have executed this Warrant as of the Effective Date.

ASPEN AEROGELS, INC.

By: _____
Name:
Title:
Address:

Attention:
Facsimile:
E-mail:

Acknowledged and Agreed:

REGISTERED HOLDER:

_____
Name of Registered Holder (Print or Type)

By: _____
Name of Entity
Its:
(*Complete above if another entity signs for Registered Holder listed above)*

By: _____
Name:
Title:
(Signature, name and title for individuals signing for entity)

Address:

Attention:
Facsimile:
E-mail:

EXHIBIT A

NOTICE OF EXERCISE

SERIES C PREFERRED STOCK PURCHASE WARRANT

(To be executed upon exercise of Warrant No. ___)

The undersigned hereby irrevocably elects to exercise the right of purchase represented by Warrant No. for, and to purchase thereunder, the securities of ASPEN AEROGELS, INC. as provided for therein, and (check the applicable box(es)):

☐ Tenders herewith payment of the Purchase Price in the form of cash or a certified or official bank check in same-day funds (or has initiated a wire) in the amount of $ for shares of Warrant Stock.

☐ Elects a Net Issue Exercise pursuant to Section 1.2 (or Section 1.3), and accordingly requests delivery of a net of shares of Warrant Stock, calculated in accordance with Section 1.2.

Such Notice is being provided in response to (if applicable):

☐ IPO Notice ☐ Acquisition Notice

Note: The above signature must correspond to the name as written upon the face of the Warrant in every particular, without alteration or any change whatsoever. If said number of Warrant Shares shall not be all of the Warrant Shares purchasable under the Warrant, a new Warrant is to be issued in the name of said undersigned for the balance remaining of the Warrant Shares purchasable thereunder.

Notice of Exercise

EXHIBIT B

ASSIGNMENT

SERIES C PREFERRED STOCK PURCHASE WARRANT

(To be executed upon assignment of Warrant No. ___)

For value received, the undersigned hereby sells, assigns and transfers unto the within Warrant, together with all right, title and interest therein, and does hereby irrevocably constitute and appoint attorney, to transfer said Warrant on the books of ASPEN AEROGELS, INC. with respect to the number of shares of Warrant Stock set forth below, with full power of substitution in the premises:

Name(s) of Assignee(s)	Address	# of Shares of Warrant Stock

And if said number of shares of Warrant Stock shall not be all the number of shares of Warrant Stock represented by the Warrant, a new Warrant is to be issued in the name of said undersigned for the balance remaining of the Warrants registered by said Warrant.

Dated: _____

Signature: _____

Note: The signature to the foregoing Assignment must correspond to the name as written upon the face of the Warrant in every particular, without alteration or any change whatsoever.

Form of Assignment

ASPEN AEROGELS, INC.

AMENDMENT AND WAIVER NO. 1
TO
SERIES C PREFERRED STOCK PURCHASE WARRANTS

This Amendment and Waiver No. 1 to Series C Preferred Stock Purchase Warrants, dated March 28, 2013, and May 6, 2013 (this " Amendment "), is entered into as of August 7, 2013, by and between Aspen Aerogels, Inc., a Delaware corporation (the " Company "), and the parties listed on the signature pages hereto, constituting the holders of at least a two-thirds majority of the Warrants (as defined below) currently outstanding (the " Requisite Holders "). Capitalized terms used in this Amendment and not otherwise defined herein shall have the meanings ascribed thereto in the Warrants (as defined below).

WHEREAS , the Company issued certain Series C Preferred Stock Purchase Warrants, dated March 28, 2013, and May 6, 2013 (the " Warrants "), pursuant to that certain Note and Warrant Purchase Agreement, dated as of March 28, 2013, by and among the Company and the purchasers signature thereto (the " Agreement "), to purchase shares of the Company's Series C Convertible Preferred Stock, par value $0.00001 per share (the " Series C Preferred Stock ");

WHEREAS , the Company will engage in a 1-for-10 reverse stock split (the " Reverse Stock Split "), effective as of August 20, 2013, of each issued and outstanding share of the capital stock of the Company; and

WHEREAS , the Company and the Requisite Holders, individually and on behalf of all holders of Warrants issued pursuant to the Agreement (the " Holders "), wish to amend and waive certain rights under each of the Warrants in accordance with Sections 6.3 and 6.4, respectively, thereof.

NOW THEREFORE , in consideration of the mutual covenants and agreements set forth herein, the parties hereto agree as follows:

1. Amendment .

(a) Section 1.6(b) of the Warrants is hereby amended to append the following sentence to such section:

"Notwithstanding the foregoing sentence, the Company shall issue one (1) whole share of Warrant Stock in lieu of payment by the Company for any fractional share otherwise issuable upon the exercise of this Warrant after giving effect to the one-for-ten (1-for-10) combination of the Underlying Stock effective as of August , 2013, in accordance with Section 2.1 hereof."

2. Waivers .

(a) The Holders hereby waive in all respects any rights under Section 1.6(b) of the Warrants to receive cash from the Company in lieu of fractional shares which would otherwise be issuable upon exercise of such warrants after giving effect to the Reverse Stock Split.

(b) The Holders hereby waive in all respects any rights to a certificate of adjustment from the Company regarding the effect of the Reverse Stock Split on such warrants as may be required under the provisions of Section 2.5 of the Warrants.

3. Except to the extent amended hereby, all of the terms, provisions and conditions of the Warrants are hereby ratified and confirmed and shall remain in full force and effect.

4. The execution, delivery and effectiveness of this Amendment shall not operate as a waiver of any right, power or remedy of any party under any Warrant, nor constitute an amendment of any provision of any Warrant, except as specifically set forth herein.

5. This Amendment may be executed in any number of counterparts, each of which shall be deemed to be an original instrument and all which together shall constitute one and the same agreement. This Amendment may be executed by facsimile or by electronic or PDF file.

[Signature Pages Follow]

IN WITNESS WHEREOF, the parties hereto have executed this Amendment and Waiver No. 1 to Series C Preferred Stock Purchase Warrants as of the date first written above.

ASPEN AEROGELS, INC.

By: /s/ John F. Fairbanks
Name: John F. Fairbanks
Title: Chief Financial Officer

[Signature Page to Aspen Aerogels, Inc.
Amendment and Waiver No. 1 to Series C Preferred Stock Purchase Warrants]

IN WITNESS WHEREOF, the parties hereto have executed this Amendment and Waiver No. 1 to Series C Preferred Stock Purchase Warrants as of the date first written above.

GKFF VENTURES I, LLC

By: /s/ Robert Thomas
Name: Robert Thomas
Title: Manager

[Signature Page to Aspen Aerogels, Inc.
Amendment and Waiver No. 1 to Series C Preferred Stock Purchase Warrants]

IN WITNESS WHEREOF, the parties hereto have executed this Amendment and Waiver No. 1 to Series C Preferred Stock Purchase Warrants as of the date first written above.

RESERVOIR CAPITAL PARTNERS, L.P.

By: RCP GP, LLC
Its: General Partner

By: /s/ Craig A. Huff
Name: Craig A. Huff
Title: Co-Chief Executive Officer

RESERVOIR CAPITAL MASTER FUND, L.P.

By: Reservoir Capital Group, LLC
Its: General Partner

By: /s/ Craig A. Huff
Name: Craig A. Huff
Title: Co-Chief Executive Officer

IN WITNESS WHEREOF, the parties hereto have executed this Amendment and Waiver No. 1 to Series C Preferred Stock Purchase Warrants as of the date first written above.

ARCAPITA VENTURES I LIMITED

By: /s/ John Huntz
Name: John Huntz
Title: Executive Director

[Signature Page to Aspen Aerogels, Inc.
Amendment and Waiver No. 1 to Series C Preferred Stock Purchase Warrants]

IN WITNESS WHEREOF, the parties hereto have executed this Amendment and Waiver No. 1 to Series C Preferred Stock Purchase Warrants as of the date first written above.

ROCKPORT CAPITAL PARTNERS, L.P.

By: RockPort Capital, L.L.C.
Its: General Partner

By: /s/ Stoddard M. Wilson
Name: Stoddard M. Wilson
Title: Managing Member

ROCKPORT CAPITAL PARTNERS II, L.P.

By: RockPort Capital II, L.L.C.
Its: General Partner

By: /s/ Stoddard M. Wilson
Name: Stoddard M. Wilson
Title: Managing Member

RP CO-INVESTMENT FUND I, L.P.

By: RP Co-Investments Fund I, GP, LLC
Its: General Partner

By: /s/ Stoddard M. Wilson
Name: Stoddard M. Wilson
Title: Managing Member

ROCKPORT SII, LLC

By: RockPort SGII, LLC
Its: General Partner

By: /s/ Stoddard M. Wilson
Name: Stoddard M. Wilson
Title: Managing Member

Exhibit 10.2.1

ASPEN AEROGELS, INC.

2014 EMPLOYEE, DIRECTOR AND CONSULTANT EQUITY INCENTIVE PLAN

1. DEFINITIONS.

Unless otherwise specified or unless the context otherwise requires, the following terms, as used in this Aspen Aerogels, Inc. 2014 Employee, Director and Consultant Equity Incentive Plan, have the following meanings:

Administrator means the Board of Directors, unless it has delegated power to act on its behalf to the Committee, in which case the Administrator means the Committee.

Affiliate means a corporation which, for purposes of Section 424 of the Code, is a parent or subsidiary of the Company, direct or indirect.

Agreement means an agreement between the Company and a Participant delivered pursuant to the Plan and pertaining to a Stock Right, in such form as the Administrator shall approve.

Board of Directors means the Board of Directors of the Company.

Cause means, with respect to a Participant (a) dishonesty with respect to the Company or any Affiliate, (b) insubordination, substantial malfeasance or non-feasance of duty, (c) unauthorized disclosure of confidential information, (d) breach by a Participant of any provision of any employment, consulting, advisory, nondisclosure, non-competition or similar agreement between the Participant and the Company or any Affiliate, and (e) conduct substantially prejudicial to the business of the Company or any Affiliate; provided, however, that any provision in an agreement between a Participant and the Company or an Affiliate, which contains a conflicting definition of Cause for termination and which is in effect at the time of such termination, shall supersede this definition with respect to that Participant. The determination of the Administrator as to the existence of Cause will be conclusive on the Participant and the Company.

Code means the United States Internal Revenue Code of 1986, as amended including any successor statute, regulation and guidance thereto.

Committee means the committee of the Board of Directors to which the Board of Directors has delegated power to act under or pursuant to the provisions of the Plan the composition of which shall at all times satisfy the provisions of Section 162(m) of the Code.

Common Stock means shares of the Company’s common stock, $0.00001 par value per share.

Company means Aspen Aerogels, Inc., a Delaware corporation.

Consultant means any natural person who is an advisor or consultant that provides bona fide services to the Company or its Affiliates, provided that such services are not in connection with the offer or sale of securities in a capital raising transaction, and do not directly or indirectly promote or maintain a market for the Company's or its Affiliates' securities.

Disability or Disabled means permanent and total disability as defined in Section 22(e)(3) of the Code.

Employee means any employee of the Company or of an Affiliate (including, without limitation, an employee who is also serving as an officer or director of the Company or of an Affiliate), designated by the Administrator to be eligible to be granted one or more Stock Rights under the Plan.

Exchange Act means the Securities Exchange Act of 1934, as amended.

Fair Market Value of a Share of Common Stock means:

(1) If the Common Stock is listed on a national securities exchange or traded in the over-the-counter market and sales prices are regularly reported for the Common Stock, the closing or, if not applicable, the last price of the Common Stock on the composite tape or other comparable reporting system for the trading day on the applicable date and if such applicable date is not a trading day, the last market trading day prior to such date;

(2) If the Common Stock is not traded on a national securities exchange but is traded on the over-the-counter market, if sales prices are not regularly reported for the Common Stock for the trading day referred to in clause (1), and if bid and asked prices for the Common Stock are regularly reported, the mean between the bid and the asked price for the Common Stock at the close of trading in the over-the-counter market for the trading day on which Common Stock was traded on the applicable date and if such applicable date is not a trading day, the last market trading day prior to such date; and

(3) If the Common Stock is neither listed on a national securities exchange nor traded in the over-the-counter market, such value as the Administrator, in good faith, shall determine.

ISO means an option intended to qualify as an incentive stock option under Section 422 of the Code.

Non-Qualified Option means an option which is not intended to qualify as an ISO.

Option means an ISO or Non-Qualified Option granted under the Plan.

Participant means an Employee, director or Consultant of the Company or an Affiliate to whom one or more Stock Rights are granted under the Plan. As used herein, "Participant" shall include "Participant's Survivors" where the context requires.

Performance Based Award means a Stock Grant or Stock-Based Award as set forth in Paragraph 9 hereof.

Performance Goals means performance goals based on one or more of the following criteria: (i) revenue; (ii) gross profit; (iii) pre-tax income or after-tax income; (iv) income or earnings including operating income, earnings before or after taxes, interest, depreciation, amortization, and/or extraordinary or special items; (v) net income excluding amortization of intangible assets, depreciation and impairment of goodwill and intangible assets and/or excluding charges attributable to the adoption of new accounting pronouncements; (vi) earnings or book value per share (basic or diluted); (vii) return on assets (gross or net), return on investment, return on capital, or return on equity; (viii) return on revenues; (ix) cash flow, free cash flow, cash flow return on investment (discounted or otherwise), net cash provided by operations, or cash flow in excess of cost of capital; (x) economic value created; (xi) operating margin or profit margin; (xii) stock price or total stockholder return; (xiii) income or earnings from continuing operations; (xiv) cost targets, reductions and savings, expense management, productivity and efficiencies; and (xv) strategic business criteria, consisting of one or more objectives based on meeting specified market penetration or market share, geographic business expansion, customer satisfaction, employee satisfaction, human resources management, supervision of litigation, information technology, and goals relating to divestitures, joint ventures and similar transactions. Where applicable, the Performance Goals may be expressed in terms of attaining a specified level of the particular criterion or the attainment of a percentage increase or decrease in the particular criterion, and may be applied to one or more of the Company or an Affiliate of the Company, or a division or strategic business unit of the Company, all as determined by the Committee. The Performance Goals may include a threshold level of performance below which no Performance-Based Award will be issued or no vesting will occur, levels of performance at which Performance-Based Awards will be issued or specified vesting will occur, and a maximum level of performance above which no additional issuances will be made or at which full vesting will occur. Each of the foregoing Performance Goals shall be evaluated in accordance with generally accepted accounting principles, where applicable, and shall be subject to certification by the Committee. The Committee shall have the authority to make equitable adjustments to the Performance Goals in recognition of unusual or non-recurring events affecting the Company or any Affiliate or the financial statements of the Company or any Affiliate, in response to changes in applicable laws or regulations, or to account for items of gain, loss or expense determined to be extraordinary or unusual in nature or infrequent in occurrence or related to the disposal of a segment of a business or related to a change in accounting principles provided that any such change shall at all times satisfy the provisions of Section 162(m) of the Code.

Plan means this Aspen Aerogels, Inc. 2014 Employee, Director and Consultant Equity Incentive Plan.

Securities Act means the Securities Act of 1933, as amended.

Shares means shares of the Common Stock as to which Stock Rights have been or may be granted under the Plan or any shares of capital stock into which the Shares are changed or for which they are exchanged within the provisions of Paragraph 3 of the Plan. The Shares issued under the Plan may be authorized and unissued shares or shares held by the Company in its treasury, or both.

Stock-Based Award means a grant by the Company under the Plan of an equity award or an equity based award which is not an Option or a Stock Grant, which the Committee may, in its sole discretion, structure to qualify in whole or in part as "performance-based compensation" under Section 162(m) of the Code.

Stock Grant means a grant by the Company of Shares under the Plan, which the Committee may, in its sole discretion, structure to qualify in whole or in part as "performance-based compensation" under Section 162(m) of the Code.

Stock Right means a right to Shares or the value of Shares of the Company granted pursuant to the Plan — an ISO, a Non-Qualified Option, a Stock Grant or a Stock-Based Award.

Survivor means a deceased Participant's legal representatives and/or any person or persons who acquired the Participant's rights to a Stock Right by will or by the laws of descent and distribution.

2. PURPOSES OF THE PLAN.

The Plan is intended to encourage ownership of Shares by Employees and directors of and certain Consultants to the Company and its Affiliates in order (i) to attract and retain such people, (ii) to induce them to work for the benefit of the Company or of an Affiliate, (iii) to provide additional incentive for them to promote the success of the Company or of an Affiliate and (iv) to encourage them to take into account and align with the longer term interests of the Company and it's stockholders. The Plan provides for the granting of ISOs, Non-Qualified Options, Stock Grants and Stock-Based Awards.

3. ADMINISTRATION OF THE PLAN.

The Administrator of the Plan will be the Board of Directors, except to the extent the Board of Directors delegates its authority to the Committee, in which case the Committee shall be the Administrator. Subject to the provisions of the Plan, the Administrator is authorized to:

(a) Interpret the provisions of the Plan and all Stock Rights and to make all rules and determinations which it deems necessary or advisable for the administration of the Plan;

(b) Determine which Employees, directors and Consultants shall be granted Stock Rights;

(c) Determine the number of Shares for which a Stock Right or Stock Rights shall be granted **,** provided, however, that in no event shall Stock Rights with respect to more than [ ] Shares be granted to any Participant in any fiscal year;

(d) Specify the terms and conditions upon which a Stock Right or Stock Rights may be granted;

(e) Determine Performance Goals no later than such time as required to ensure that a Performance-Based Award which is intended to comply with the requirements of Section 162(m) of the Code so complies;

(f) Amend any term or condition of any outstanding Stock Right, including, without limitation, to reduce or increase the exercise price or purchase price, accelerate the vesting schedule or extend the expiration date, provided that (i) such term or condition as amended is permitted by the Plan; (ii) any such amendment shall not impair the rights of a Participant under any Stock Right previously granted without such Participant's consent or in the event of death of the Participant the Participant's Survivors; and (iii) any such amendment shall be made only after the Administrator determines whether such amendment would cause any adverse tax consequences to the Participant, including, but not limited to, the annual vesting limitation contained in Section 422(d) of the Code and described in Paragraph 6(b)(iv) below with respect to ISOs and pursuant to Section 409A of the Code;

(g) Make any adjustments in the Performance Goals included in any Performance-Based Awards provided that such adjustments comply with the requirements of Section 162(m) of the Code;

(h) Buy out for a payment in cash or Shares, a Stock Right previously granted and/or cancel any such Stock Right and grant in substitution therefor other Stock Rights, covering the same or a different number of Shares and having an exercise price or purchase price per share which may be lower or higher than the exercise price or purchase price of the cancelled Stock Right, based on such terms and conditions as the Administrator shall establish and the Participant shall accept; and

(i) Adopt any sub-plans applicable to residents of any specified jurisdiction as it deems necessary or appropriate in order to comply with or take advantage of any tax or other laws applicable to the Company, any Affiliate or to Participants or to otherwise facilitate the administration of the Plan, which sub-plans may include additional restrictions or conditions applicable to Stock Rights or Shares issuable pursuant to a Stock Right; provided, however, that all such interpretations, rules, determinations, terms and conditions shall be made and prescribed in the context of not causing any adverse tax consequences under Section 409A of the Code and preserving the tax status under Section 422 of the Code of those Options which are designated as ISOs and in accordance with Section 162(m) of the Code for all other Stock Rights to which the Committee has determined Section 162(m) is applicable.

Subject to the foregoing, the interpretation and construction by the Administrator of any provisions of the Plan or of any Stock Right granted under it shall be final, unless otherwise determined by the Board of Directors, if the Administrator is the Committee. In addition, if the Administrator is the Committee, the Board of Directors may take any action under the Plan that would otherwise be the responsibility of the Committee. Notwithstanding the foregoing, the Board of Directors may not take any action that would cause any outstanding Stock Right that would otherwise qualify as performance-based compensation under Section 162 (m) of the Code to fail to so qualify.

To the extent permitted under applicable law, the Board of Directors or the Committee may allocate all or any portion of its responsibilities and powers to any one or more of its members and may delegate all or any portion of its responsibilities and powers to any other person selected by it. The Board of Directors or the Committee may revoke any such allocation or delegation at any time. Notwithstanding the foregoing, only the Board of Directors or the Committee shall be authorized to grant a Stock Right to any director of the Company or to any "officer" of the Company as defined by Rule 16a-1 under the Exchange Act.

No member of the of the Board of Directors or the Committee shall be liable for any action, failure to act, determination or interpretation made in good faith with respect to this Plan or any transactions hereunder. The Company hereby agrees to indemnify each member of the Board and of the Committee for all costs and expenses and, to the fullest extent permitted by applicable law, any liability incurred in connection with defending against, responding to, negotiating for the settlement of or otherwise dealing with any claim, cause of action or dispute of any kind arising in connection with any actions administering this Plan.

4. SHARES SUBJECT TO THE PLAN.

(a) The number of Shares which may be issued from time to time pursuant to this Plan shall be the sum of: (i) [ ] shares of Common Stock and (ii) any shares of Common Stock that are represented by awards granted under the Company's 2001 Equity Incentive Plan, as amended, that are forfeited, expire or are cancelled without delivery of shares of Common Stock or which result in the forfeiture of shares of Common Stock back to the Company on or after the date of termination of the Company's 2001 Equity Incentive Plan, as amended, or the equivalent of such number of Shares after the Administrator, in its sole discretion, has interpreted the effect of any stock split, stock dividend, combination, recapitalization or similar transaction in accordance with Paragraph 25 of this Plan; provided, however, that no more than [ ] Shares shall be added to the Plan pursuant to subsection (ii).

(b) Notwithstanding Subparagraph (a) above, on the first day of each fiscal year of the Company during the period beginning in fiscal year 2015, and ending on the second day of fiscal year 2024, the number of Shares that may be issued from time to time pursuant to the Plan, shall be increased by an amount equal to the lesser of (i) [ ] or the equivalent of such number of Shares after the Administrator, in its sole discretion, has interpreted the effect of

any stock split, stock dividend, combination, recapitalization or similar transaction in accordance with Paragraph 25 of the Plan; (ii) [ ]% of the number of outstanding shares of Common Stock on such date; and (iii) an amount determined by the Board.

(c) If an Option ceases to be "outstanding", in whole or in part (other than by exercise), or if the Company shall reacquire (at not more than its original issuance price) any Shares issued pursuant to a Stock Grant or Stock-Based Award, or if any Stock Right expires or is forfeited, cancelled, or otherwise terminated or results in any Shares not being issued, the unissued or reacquired Shares which were subject to such Stock Right shall again be available for issuance from time to time pursuant to this Plan. Notwithstanding the foregoing, if a Stock Right is exercised, in whole or in part, by tender of Shares or if the Company or an Affiliate's tax withholding obligation is satisfied by withholding Shares, the number of Shares deemed to have been issued under the Plan for purposes of the limitation set forth in Paragraph 3(a) above shall be the number of Shares that were subject to the Stock Right or portion thereof, and not the net number of Shares actually issued. However, in the case of ISOs, the foregoing provisions shall be subject to any limitations under the Code.

5. ELIGIBILITY FOR PARTICIPATION.

The Administrator will, in its sole discretion, name the Participants in the Plan; provided, however, that each Participant must be an Employee, director or Consultant of the Company or of an Affiliate at the time a Stock Right is granted. Notwithstanding the foregoing, the Administrator may authorize the grant of a Stock Right to a person not then an Employee, director or Consultant of the Company or of an Affiliate; provided, however, that the actual grant of such Stock Right shall be conditioned upon such person becoming eligible to become a Participant at or prior to the time of the execution of the Agreement evidencing such Stock Right. ISOs may be granted only to Employees who are deemed to be residents of the United States for tax purposes. Non-Qualified Options, Stock Grants and Stock-Based Awards may be granted to any Employee, director or Consultant of the Company or an Affiliate. The granting of any Stock Right to any individual shall neither entitle that individual to, nor disqualify him or her from, participation in any other grant of Stock Rights or any grant under any other benefit plan established by the Company or any Affiliate for Employees, directors or Consultants.

6. TERMS AND CONDITIONS OF OPTIONS.

Each Option shall be set forth in writing in an Option Agreement, duly executed by the Company and, to the extent required by law or requested by the Company, by the Participant. The Administrator may provide that Options be granted subject to such terms and conditions, consistent with the terms and conditions specifically required under this Plan, as the Administrator may deem appropriate including, without limitation, subsequent approval by the shareholders of the Company of this Plan or any amendments thereto. The Option Agreements shall be subject to at least the following terms and conditions:

(a) Non-Qualified Options : Each Option intended to be a Non-Qualified Option shall be subject to the terms and conditions which the Administrator determines to be appropriate and in the best interest of the Company, subject to the following minimum standards for any such Non-Qualified Option:

(i) Exercise Price : Each Option Agreement shall state the exercise price (per share) of the Shares covered by each Option, which exercise price shall be determined by the Administrator and shall be at least equal to the Fair Market Value per share of Common Stock on the date of grant of the Option.

(ii) Number of Shares : Each Option Agreement shall state the number of Shares to which it pertains.

(iii) Option Periods : Each Option Agreement shall state the date or dates on which it first is exercisable and the date after which it may no longer be exercised, and may provide that the Option rights accrue or become exercisable in installments over a period of months or years, or upon the occurrence of certain conditions or the attainment of stated goals or events.

(iv) Option Conditions : Exercise of any Option may be conditioned upon the Participant's execution of a Share purchase agreement in form satisfactory to the Administrator providing for certain protections for the Company and its other shareholders, including requirements that:

A. The Participant's or the Participant's Survivors' right to sell or transfer the Shares may be restricted; and

B. The Participant or the Participant's Survivors may be required to execute letters of investment intent and must also acknowledge that the Shares will bear legends noting any applicable restrictions.

(v) Term of Option : Each Option shall terminate not more than ten years from the date of the grant or at such earlier time as the Option Agreement may provide.

(b) ISOs : Each Option intended to be an ISO shall be issued only to an Employee who is deemed to be a resident of the United States for tax purposes, and shall be subject to the following terms and conditions, with such additional restrictions or changes as the Administrator determines are appropriate but not in conflict with Section 422 of the Code and relevant regulations and rulings of the Internal Revenue Service:

(i) Minimum standards : The ISO shall meet the minimum standards required of Non-Qualified Options, as described in Paragraph 6(a) above, except clause (i) and (v) thereunder.

(ii) Exercise Price : Immediately before the ISO is granted, if the Participant owns, directly or by reason of the applicable attribution rules in Section 424(d) of the Code:

A. 10% or less of the total combined voting power of all classes of stock of the Company or an Affiliate, the exercise price per share

of the Shares covered by each ISO shall not be less than 100% of the Fair Market Value per share of the Common Stock on the date of grant of the Option; or

B. More than 10% of the total combined voting power of all classes of stock of the Company or an Affiliate, the exercise price per share of the Shares covered by each ISO shall not be less than 110% of the Fair Market Value per share of the Common Stock on the date of grant of the Option.

(iii) Term of Option : For Participants who own:

A. 10% or less of the total combined voting power of all classes of stock of the Company or an Affiliate, each ISO shall terminate not more than ten years from the date of the grant or at such earlier time as the Option Agreement may provide; or

B. More than 10% of the total combined voting power of all classes of stock of the Company or an Affiliate, each ISO shall terminate not more than five years from the date of the grant or at such earlier time as the Option Agreement may provide.

(iv) Limitation on Yearly Exercise : The Option Agreements shall restrict the amount of ISOs which may become exercisable in any calendar year (under this or any other ISO plan of the Company or an Affiliate) so that the aggregate Fair Market Value (determined on the date each ISO is granted) of the stock with respect to which ISOs are exercisable for the first time by the Participant in any calendar year does not exceed $100,000.

7. TERMS AND CONDITIONS OF STOCK GRANTS.

Each Stock Grant to a Participant shall state the principal terms in an Agreement duly executed by the Company and, to the extent required by law or requested by the Company, by the Participant. The Agreement shall be in a form approved by the Administrator and shall contain terms and conditions which the Administrator determines to be appropriate and in the best interest of the Company, subject to the following minimum standards:

(a) Each Agreement shall state the purchase price per share, if any, of the Shares covered by each Stock Grant, which purchase price shall be determined by the Administrator but shall not be less than the minimum consideration required by the Delaware General Corporation Law, if any, on the date of the grant of the Stock Grant;

(b) Each Agreement shall state the number of Shares to which the Stock Grant pertains; and

(c) Each Agreement shall include the terms of any right of the Company to restrict or reacquire the Shares subject to the Stock Grant, including the time or attainment of Performance Goals or such other performance criteria upon which such rights shall accrue and the purchase price therefor, if any.

8. TERMS AND CONDITIONS OF OTHER STOCK-BASED AWARDS.

The Administrator shall have the right to grant other Stock-Based Awards based upon the Common Stock having such terms and conditions as the Administrator may determine, including, without limitation, the grant of Shares based upon certain conditions, the grant of securities convertible into Shares and the grant of stock appreciation rights, phantom stock awards or stock units. The principal terms of each Stock-Based Award shall be set forth in an Agreement, duly executed by the Company and, to the extent required by law or requested by the Company, by the Participant. The Agreement shall be in a form approved by the Administrator and shall contain terms and conditions which the Administrator determines to be appropriate and in the best interest of the Company.

The Company intends that the Plan and any Stock-Based Awards granted hereunder be exempt from the application of Section 409A of the Code or meet the requirements of paragraphs (2), (3) and (4) of subsection (a) of Section 409A of the Code, to the extent applicable, and be operated in accordance with Section 409A so that any compensation deferred under any Stock-Based Award (and applicable investment earnings) shall not be included in income under Section 409A of the Code. Any ambiguities in the Plan shall be construed to effect the intent as described in this Paragraph 8.

9. PERFORMANCE BASED AWARDS.

Notwithstanding anything to the contrary herein, during any period when Section 162(m) of the Code is applicable to the Company and the Plan, Stock Rights granted under Paragraph 7 and Paragraph 8 may be granted by the Committee in a manner which is deductible by the Company under Section 162(m) of the Code ("Performance-Based Awards"). A Participant's Performance-Based Award shall be determined based on the attainment of written Performance Goals, which must be objective and approved by the Committee for a performance period of between one and five years established by the Committee (I) while the outcome for that performance period is substantially uncertain and (II) no more than 90 days after the commencement of the performance period to which the Performance Goal relates or, if less, the number of days which is equal to 25% of the relevant performance period. The Committee shall determine whether, with respect to a performance period, the applicable Performance Goals have been met with respect to a given Participant and, if they have, to so certify and ascertain the amount of the applicable Performance-Based Award. No Performance-Based Awards will be issued for such performance period until such certification is made by the Committee. The number of shares issued in respect of a Performance-Based Award to a given Participant may be less than the amount determined by the applicable Performance Goal formula, at the discretion of the Committee. The number of shares issued in respect of a Performance-Based Award determined by the Committee for a performance period shall be paid to the Participant at such time as determined by the Committee in its sole discretion after the end of such performance period. Nothing in this Section shall prohibit the Company from granting Stock-Based Awards subject to performance criteria that do not comply with this Paragraph.

10. EXERCISE OF OPTIONS AND ISSUE OF SHARES.

An Option (or any part or installment thereof) shall be exercised by giving written notice to the Company or its designee (in a form acceptable to the Administrator, which may include electronic notice), together with provision for payment of the aggregate exercise price in accordance with this Paragraph for the Shares as to which the Option is being exercised, and upon compliance with any other condition(s) set forth in the Option Agreement. Such notice shall be signed by the person exercising the Option (which signature may be provided electronically in a form acceptable to the Administrator), shall state the number of Shares with respect to which the Option is being exercised and shall contain any representation required by the Plan or the Option Agreement. Payment of the exercise price for the Shares as to which such Option is being exercised shall be made (a) in United States dollars in cash or by check, or (b) at the discretion of the Administrator, through delivery of shares of Common Stock held for at least six months (if required to avoid negative accounting treatment) having a Fair Market Value equal as of the date of the exercise to the aggregate cash exercise price for the number of Shares as to which the Option is being exercised, or (c) at the discretion of the Administrator, by having the Company retain from the Shares otherwise issuable upon exercise of the Option, a number of Shares having a Fair Market Value equal as of the date of exercise to the aggregate exercise price for the number of Shares as to which the Option is being exercised, or (d) at the discretion of the Administrator, in accordance with a cashless exercise program established with a securities brokerage firm, and approved by the Administrator, or (e) at the discretion of the Administrator, by any combination of (a), (b), (c) and (d) above or (f) at the discretion of the Administrator, by payment of such other lawful consideration as the Administrator may determine. Notwithstanding the foregoing, the Administrator shall accept only such payment on exercise of an ISO as is permitted by Section 422 of the Code.

The Company shall then reasonably promptly deliver the Shares as to which such Option was exercised to the Participant (or to the Participant's Survivors, as the case may be). In determining what constitutes "reasonably promptly," it is expressly understood that the issuance and delivery of the Shares may be delayed by the Company in order to comply with any law or regulation (including, without limitation, state securities or "blue sky" laws) which requires the Company to take any action with respect to the Shares prior to their issuance. The Shares shall, upon delivery, be fully paid, non-assessable Shares.

11. PAYMENT IN CONNECTION WITH THE ISSUANCE OF STOCK GRANTS AND STOCK-BASED AWARDS AND ISSUE OF SHARES.

Any Stock Grant or Stock-Based Award requiring payment of a purchase price for the Shares as to which such Stock Grant or Stock-Based Award is being granted shall be made (a) in United States dollars in cash or by check, or (b) at the discretion of the Administrator, through delivery of shares of Common Stock held for at least six months (if required to avoid negative accounting treatment) and having a Fair Market Value equal as of the date of payment to the purchase price of the Stock Grant or Stock-Based Award, or (c) at the discretion of the Administrator, by any combination of (a) and (b) above; or (d) at the discretion of the Administrator, by payment of such other lawful consideration as the Administrator may determine.

The Company shall when required by the applicable Agreement, reasonably promptly deliver the Shares as to which such Stock Grant or Stock-Based Award was made to the Participant (or to the Participant's Survivors, as the case may be), subject to any escrow provision set forth in the applicable Agreement. In determining what constitutes "reasonably promptly," it is expressly understood that the issuance and delivery of the Shares may be delayed by the Company in order to comply with any law or regulation (including, without limitation, state securities or "blue sky" laws) which requires the Company to take any action with respect to the Shares prior to their issuance.

12. RIGHTS AS A SHAREHOLDER.

No Participant to whom a Stock Right has been granted shall have rights as a shareholder with respect to any Shares covered by such Stock Right except after due exercise of an Option or issuance of Shares as set forth in any Agreement (including with respect to dividends), tender of the aggregate exercise or purchase price, if any, for the Shares being purchased and registration of the Shares in the Company's share register in the name of the Participant.

13. ASSIGNABILITY AND TRANSFERABILITY OF STOCK RIGHTS.

By its terms, a Stock Right granted to a Participant shall not be transferable by the Participant other than (i) by will or by the laws of descent and distribution, or (ii) as approved by the Administrator in its discretion and set forth in the applicable Agreement provided that no Stock Right may be transferred by a Participant for value. Notwithstanding the foregoing, an ISO transferred except in compliance with clause (i) above shall no longer qualify as an ISO. The designation of a beneficiary of a Stock Right by a Participant, with the prior approval of the Administrator and in such form as the Administrator shall prescribe, shall not be deemed a transfer prohibited by this Paragraph. Except as provided above during the Participant's lifetime a Stock Right shall only be exercisable by or issued to such Participant (or his or her legal representative) and shall not be assigned, pledged or hypothecated in any way (whether by operation of law or otherwise) and shall not be subject to execution, attachment or similar process. Any attempted transfer, assignment, pledge, hypothecation or other disposition of any Stock Right or of any rights granted thereunder contrary to the provisions of this Plan, or the levy of any attachment or similar process upon a Stock Right, shall be null and void.

14. EFFECT ON OPTIONS OF TERMINATION OF SERVICE OTHER THAN FOR CAUSE OR DEATH OR DISABILITY.

Except as otherwise provided in a Participant's Option Agreement, in the event of a termination of service (whether as an Employee, director or Consultant) with the Company or an Affiliate before the Participant has exercised an Option, the following rules apply:

(a) A Participant who ceases to be an Employee, director or Consultant of the Company or of an Affiliate (for any reason other than termination for Cause, Disability, or death for which events there are special rules in Paragraphs 15, 16, and 17, respectively), may exercise any Option granted to him or her to the extent that the Option is exercisable on the date of such termination of service, but only within such term as the Administrator has designated in a Participant's Option Agreement.

(b) Except as provided in Subparagraph (c) below, or Paragraph 16 or 17, in no event may an Option intended to be an ISO, be exercised later than three months after the Participant's termination of employment.

(c) The provisions of this Paragraph, and not the provisions of Paragraph 16 or 17, shall apply to a Participant who subsequently becomes Disabled or dies after the termination of employment, director status or consultancy; provided, however, in the case of a Participant's Disability or death within three months after the termination of employment, director status or consultancy, the Participant or the Participant's Survivors may exercise the Option within one year after the date of the Participant's termination of service, but in no event after the date of expiration of the term of the Option.

(d) Notwithstanding anything herein to the contrary, if subsequent to a Participant's termination of employment, termination of director status or termination of consultancy, but prior to the exercise of an Option, the Administrator determines that, either prior or subsequent to the Participant's termination, the Participant engaged in conduct which would constitute Cause, then such Participant shall forthwith cease to have any right to exercise any Option.

(e) A Participant to whom an Option has been granted under the Plan who is absent from the Company or an Affiliate because of temporary disability (any disability other than a Disability as defined in Paragraph 1 hereof), or who is on leave of absence for any purpose, shall not, during the period of any such absence, be deemed, by virtue of such absence alone, to have terminated such Participant's employment, director status or consultancy with the Company or with an Affiliate, except as the Administrator may otherwise expressly provide; provided, however, that, for ISOs, any leave of absence granted by the Administrator of greater than ninety days, unless pursuant to a contract or statute that guarantees the right to reemployment, shall cause such ISO to become a Non-Qualified Option on the 181 st day following such leave of absence.

(f) Except as required by law or as set forth in a Participant's Option Agreement, Options granted under the Plan shall not be affected by any change of a Participant's status within or among the Company and any Affiliates, so long as the Participant continues to be an Employee, director or Consultant of the Company or any Affiliate.

15. EFFECT ON OPTIONS OF TERMINATION OF SERVICE FOR CAUSE.

Except as otherwise provided in a Participant's Option Agreement, the following rules apply if the Participant's service (whether as an Employee, director or Consultant) with the Company or an Affiliate is terminated for Cause prior to the time that all his or her outstanding Options have been exercised:

(a) All outstanding and unexercised Options as of the time the Participant is notified his or her service is terminated for Cause will immediately be forfeited.

(b) Cause is not limited to events which have occurred prior to a Participant's termination of service, nor is it necessary that the Administrator's finding of Cause occur prior to termination. If the Administrator determines, subsequent to a Participant's termination of service but prior to the exercise of an Option, that either prior or subsequent to the Participant's termination the Participant engaged in conduct which would constitute Cause, then the right to exercise any Option is forfeited.

16. EFFECT ON OPTIONS OF TERMINATION OF SERVICE FOR DISABILITY.

Except as otherwise provided in a Participant's Option Agreement:

(a) A Participant who ceases to be an Employee, director or Consultant of the Company or of an Affiliate by reason of Disability may exercise any Option granted to such Participant:

(i) To the extent that the Option has become exercisable but has not been exercised on the date of the Participant's termination of service due to Disability; and

(ii) In the event rights to exercise the Option accrue periodically, to the extent of a pro rata portion through the date of the Participant's termination of service due to Disability of any additional vesting rights that would have accrued on the next vesting date had the Participant not become Disabled. The proration shall be based upon the number of days accrued in the current vesting period prior to the date of the Participant's termination of service due to Disability.

(b) A Disabled Participant may exercise the Option only within the period ending one year after the date of the Participant's termination of service due to Disability, notwithstanding that the Participant might have been able to exercise the Option as to some or all of the Shares on a later date if the Participant had not been terminated due to Disability and had continued to be an Employee, director or Consultant or, if earlier, within the originally prescribed term of the Option.

(c) The Administrator shall make the determination both of whether Disability has occurred and the date of its occurrence (unless a procedure for such determination is set forth in another agreement between the Company and such Participant, in which case such procedure shall be used for such determination). If requested, the Participant shall be examined by a physician selected or approved by the Administrator, the cost of which examination shall be paid for by the Company.

17. EFFECT ON OPTIONS OF DEATH WHILE AN EMPLOYEE, DIRECTOR OR CONSULTANT.

Except as otherwise provided in a Participant's Option Agreement:

(a) In the event of the death of a Participant while the Participant is an Employee, director or Consultant of the Company or of an Affiliate, such Option may be exercised by the Participant's Survivors:

(i) To the extent that the Option has become exercisable but has not been exercised on the date of death; and

(ii) In the event rights to exercise the Option accrue periodically, to the extent of a pro rata portion through the date of death of any additional vesting rights that would have accrued on the next vesting date had the Participant not died. The proration shall be based upon the number of days accrued in the current vesting period prior to the Participant's date of death.

(b) If the Participant's Survivors wish to exercise the Option, they must take all necessary steps to exercise the Option within one year after the date of death of such Participant, notwithstanding that the decedent might have been able to exercise the Option as to some or all of the Shares on a later date if he or she had not died and had continued to be an Employee, director or Consultant or, if earlier, within the originally prescribed term of the Option.

18. EFFECT OF TERMINATION OF SERVICE ON STOCK GRANTS AND STOCK-BASED AWARDS.

In the event of a termination of service (whether as an Employee, director or Consultant) with the Company or an Affiliate for any reason before the Participant has accepted a Stock Grant or a Stock-Based Award and paid the purchase price, if required, such grant shall terminate.

For purposes of this Paragraph 18 and Paragraph 19 below, a Participant to whom a Stock Grant has been issued under the Plan who is absent from work with the Company or with an Affiliate because of temporary disability (any disability other than a Disability as defined in Paragraph 1 hereof), or who is on leave of absence for any purpose, shall not, during the period of any such absence, be deemed, by virtue of such absence alone, to have terminated such Participant's employment, director status or consultancy with the Company or with an Affiliate, except as the Administrator may otherwise expressly provide.

In addition, for purposes of this Paragraph 18 and Paragraph 19 below, any change of employment or other service within or among the Company and any Affiliates shall not be treated as a termination of employment, director status or consultancy so long as the Participant continues to be an Employee, director or Consultant of the Company or any Affiliate.

19. EFFECT ON STOCK GRANTS OF TERMINATION OF SERVICE OTHER THAN FOR CAUSE OR DEATH OR DISABILITY.

Except as otherwise provided in a Participant's Stock Grant Agreement, in the event of a termination of service (whether as an Employee, director or Consultant), other than termination for Cause, Disability, or death for which events there are special rules in Paragraphs 20, 21, and 22, respectively, before all forfeiture provisions or Company rights of repurchase shall have lapsed, then the Company shall have the right to cancel or repurchase that number of Shares subject to a Stock Grant as to which the Company's forfeiture or repurchase rights have not lapsed.

20. EFFECT ON STOCK GRANTS OF TERMINATION OF SERVICE FOR CAUSE.

Except as otherwise provided in a Participant's Stock Grant Agreement, the following rules apply if the Participant's service (whether as an Employee, director or Consultant) with the Company or an Affiliate is terminated for Cause:

(a) All Shares subject to any Stock Grant that remain subject to forfeiture provisions or as to which the Company shall have a repurchase right shall be immediately forfeited to the Company as of the time the Participant is notified his or her service is terminated for Cause at par value.

(b) Cause is not limited to events which have occurred prior to a Participant's termination of service, nor is it necessary that the Administrator's finding of Cause occur prior to termination. If the Administrator determines, subsequent to a Participant's termination of service, that either prior or subsequent to the Participant's termination the Participant engaged in conduct which would constitute Cause, then all Shares subject to any Stock Grant that remained subject to forfeiture provisions or as to which the Company had a repurchase right on the date of termination shall be immediately forfeited to the Company.

21. EFFECT ON STOCK GRANTS OF TERMINATION OF SERVICE FOR DISABILITY.

Except as otherwise provided in a Participant's Stock Grant Agreement, the following rules apply if a Participant ceases to be an Employee, director or Consultant of the Company or of an Affiliate by reason of Disability: to the extent the forfeiture provisions or the Company's rights of repurchase have not lapsed on the date of Disability, they shall be exercisable; provided, however, that in the event such forfeiture provisions or rights of repurchase lapse periodically, such provisions or rights shall lapse to the extent of a pro rata portion of the Shares subject to such Stock Grant through the date of Disability as would have lapsed had the Participant not become Disabled. The proration shall be based upon the number of days accrued prior to the date of Disability.

The Administrator shall make the determination both as to whether Disability has occurred and the date of its occurrence (unless a procedure for such determination is set forth in another agreement between the Company and such Participant, in which case such procedure shall be used for such determination). If requested, the Participant shall be examined by a physician selected or approved by the Administrator, the cost of which examination shall be paid for by the Company.

22. EFFECT ON STOCK GRANTS OF DEATH WHILE AN EMPLOYEE, DIRECTOR OR CONSULTANT.

Except as otherwise provided in a Participant's Stock Grant Agreement, the following rules apply in the event of the death of a Participant while the Participant is an Employee, director or Consultant of the Company or of an Affiliate: to the extent the forfeiture provisions or the Company's rights of repurchase have not lapsed on the date of death, they shall be exercisable; provided, however, that in the event such forfeiture provisions or rights of repurchase lapse periodically, such provisions or rights shall lapse to the extent of a pro rata portion of the Shares subject to such Stock Grant through the date of death as would have lapsed had the Participant not died. The proration shall be based upon the number of days accrued prior to the Participant's date of death.

23. PURCHASE FOR INVESTMENT.

Unless the offering and sale of the Shares shall have been effectively registered under the Securities Act, the Company shall be under no obligation to issue Shares under the Plan unless and until the following conditions have been fulfilled:

(a) The person who receives a Stock Right shall warrant to the Company, prior to the receipt of Shares, that such person is acquiring such Shares for his or her own account, for investment, and not with a view to, or for sale in connection with, the distribution of any such Shares, in which event the person acquiring such Shares shall be bound by the provisions of the following legend (or a legend in substantially similar form) which shall be endorsed upon the certificate evidencing the Shares issued pursuant to such exercise or such grant:

"The shares represented by this certificate have been taken for investment and they may not be sold or otherwise transferred by any person, including a pledgee, unless (1) either (a) a Registration Statement with respect to such shares shall be effective under the Securities Act of 1933, as amended, or (b) the Company shall have received an opinion of counsel satisfactory to it that an exemption from registration under such Act is then available, and (2) there shall have been compliance with all applicable state securities laws."

(b) At the discretion of the Administrator, the Company shall have received an opinion of its counsel that the Shares may be issued in compliance with the Securities Act without registration thereunder.

24. DISSOLUTION OR LIQUIDATION OF THE COMPANY.

Upon the dissolution or liquidation of the Company, all Options granted under this Plan which as of such date shall not have been exercised and all Stock Grants and Stock-Based Awards which have not been accepted, to the extent required under the applicable Agreement, will terminate and become null and void; provided, however, that if the rights of a Participant or a Participant's Survivors have not otherwise terminated and expired, the Participant or the Participant's Survivors will have the right immediately prior to such dissolution or liquidation to exercise or accept any Stock Right to the extent that the Stock Right is exercisable or subject to acceptance as of the date immediately prior to such dissolution or liquidation. Upon the dissolution or liquidation of the Company, any outstanding Stock-Based Awards shall immediately terminate unless otherwise determined by the Administrator or specifically provided in the applicable Agreement.

25. ADJUSTMENTS.

Upon the occurrence of any of the following events, a Participant's rights with respect to any Stock Right granted to him or her hereunder shall be adjusted as hereinafter provided, unless otherwise specifically provided in a Participant's Agreement:

(a) Stock Dividends and Stock Splits . If (i) the shares of Common Stock shall be subdivided or combined into a greater or smaller number of shares or if the Company shall issue any shares of Common Stock as a stock dividend on its outstanding Common Stock, or (ii) additional shares or new or different shares or other securities of the Company or other non-cash assets are distributed with respect to such shares of Common Stock, each Stock Right and the number of shares of Common Stock deliverable thereunder shall be appropriately increased or decreased proportionately, and appropriate adjustments shall be made including, in the exercise or purchase price per share, to reflect such events. The number of Shares subject to the limitations in Paragraph 3(a), 3(b) and 4(c) shall also be proportionately adjusted upon the occurrence of such events and the Performance Goals applicable to outstanding Performance-Based Awards.

(b) Corporate Transactions . If the Company is to be consolidated with or acquired by another entity in a merger, consolidation, or sale of all or substantially all of the Company's assets other than a transaction to merely change the state of incorporation (a "Corporate Transaction"), the Administrator or the board of directors of any entity assuming the obligations of the Company hereunder (the "Successor Board"), shall, as to outstanding Options, either (i) make appropriate provision for the continuation of such Options by substituting on an equitable basis for the Shares then subject to such Options either the consideration payable with respect to the outstanding shares of Common Stock in connection with the Corporate Transaction or securities of any successor or acquiring entity; or (ii) upon written notice to the Participants, provide that such Options must be exercised (either (A) to the extent then exercisable or, (B) at the discretion of the Administrator, any such Options being made partially or fully exercisable for purposes of this Subparagraph), within a specified number of days of the date of such notice, at the end of which period such Options which have not been exercised shall terminate; or (iii) terminate such Options in exchange for payment of an amount equal to the consideration payable upon consummation of such Corporate Transaction to a holder of the number of shares of Common Stock into which such Option would have been exercisable (either (A) to the extent then exercisable or, (B) at the discretion of the Administrator, any such Options being made partially or fully exercisable for purposes of this Subparagraph) less the aggregate exercise price thereof. For purposes of determining the payments to be made pursuant to Subclause (iii) above, in the case of a Corporate Transaction the consideration for which, in whole or in part, is other than cash, the consideration other than cash shall be valued at the fair value thereof as determined in good faith by the Board of Directors.

With respect to outstanding Stock Grants, the Administrator or the Successor Board, shall make appropriate provision for the continuation of such Stock Grants on the same terms and conditions by substituting on an equitable basis for the Shares then subject to such Stock Grants either the consideration payable with respect to the outstanding Shares of Common Stock in connection with the Corporate Transaction or securities of any successor or acquiring entity. In lieu of the foregoing, in connection with any Corporate Transaction, the Administrator may provide that, upon consummation of the Corporate Transaction, each outstanding Stock Grant shall be terminated in exchange for payment of an amount equal to the consideration payable upon consummation of such Corporate Transaction to a holder of the number of shares of Common Stock comprising such Stock Grant (to the extent such Stock Grant is no longer subject to any forfeiture or repurchase rights then in effect or, at the discretion of the Administrator, all forfeiture and repurchase rights being waived upon such Corporate Transaction).

In taking any of the actions permitted under this Paragraph 25(b), the Administrator shall not be obligated by the Plan to treat all Stock Rights, all Stock Rights held by a Participant, or all Stock Rights of the same type, identically.

(c) Recapitalization or Reorganization . In the event of a recapitalization or reorganization of the Company other than a Corporate Transaction pursuant to which securities of the Company or of another corporation are issued with respect to the outstanding shares of Common Stock, a Participant upon exercising an Option or accepting a Stock Grant after the recapitalization or reorganization shall be entitled to receive for the price paid upon such exercise or acceptance if any, the number of replacement securities which would have been received if such Option had been exercised or Stock Grant accepted prior to such recapitalization or reorganization.

(d) Adjustments to Stock-Based Awards . Upon the happening of any of the events described in Subparagraphs (a), (b) or (c) above, any outstanding Stock-Based Award shall be appropriately adjusted to reflect the events described in such Subparagraphs. The Administrator or the Successor Board shall determine the specific adjustments to be made under this Paragraph 25, including, but not limited to the effect of any, Corporate Transaction and, subject to Paragraph 4, its determination shall be conclusive.

(e) Modification of Options . Notwithstanding the foregoing, any adjustments made pursuant to Subparagraph (a), (b) or (c) above with respect to Options shall be made only after the Administrator determines whether such adjustments would (i) constitute a "modification" of any ISOs (as that term is defined in Section 424(h) of the Code) or (ii) cause any adverse tax consequences for the holders of Options, including, but not limited to, pursuant to Section 409A of the Code. If the Administrator determines that such adjustments made with respect to Options would constitute a modification or other adverse tax consequence, it may refrain from making such adjustments, unless the holder of an Option specifically agrees in writing that such adjustment be made and such writing indicates that the holder has full knowledge of the consequences of such "modification" on his or her income tax treatment with respect to the Option. This paragraph shall not apply to the acceleration of the vesting of any ISO that would cause any portion of the ISO to violate the annual vesting limitation contained in Section 422(d) of the Code, as described in Paragraph 6(b)(iv).

(f) Modification of Performance-Based Awards . Notwithstanding the foregoing, with respect to any Performance-Based Award that is intended to comply as "performance based compensation" under Section 162(m) of the Code, the Committee may adjust downwards, but not upwards, the number of Shares payable pursuant to a Performance-Based Award, and the Committee may not waive the achievement of the applicable Performance Goals except in the case of death or disability of the Participant.

26. ISSUANCES OF SECURITIES.

Except as expressly provided herein, no issuance by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, shall affect, and no adjustment by reason thereof shall be made with respect to, the number or price of shares subject to Stock Rights. Except as expressly provided herein, no adjustments shall be made for dividends paid in cash or in property (including without limitation, securities) of the Company prior to any issuance of Shares pursuant to a Stock Right.

27. FRACTIONAL SHARES.

No fractional shares shall be issued under the Plan and the person exercising a Stock Right shall receive from the Company cash in lieu of such fractional shares equal to the Fair Market Value thereof.

28. CONVERSION OF ISOs INTO NON-QUALIFIED OPTIONS; TERMINATION OF ISOs.

The Administrator, at the written request of any Participant, may in its discretion take such actions as may be necessary to convert such Participant's ISOs (or any portions thereof) that have not been exercised on the date of conversion into Non-Qualified Options at any time prior to the expiration of such ISOs, regardless of whether the Participant is an Employee of the Company or an Affiliate at the time of such conversion. At the time of such conversion, the Administrator (with the consent of the Participant) may impose such conditions on the exercise of the resulting Non-Qualified Options as the Administrator in its discretion may determine, provided that such conditions shall not be inconsistent with this Plan. Nothing in the Plan shall be deemed to give any Participant the right to have such Participant's ISOs converted into Non-Qualified Options, and no such conversion shall occur until and unless the Administrator takes appropriate action. The Administrator, with the consent of the Participant, may also terminate any portion of any ISO that has not been exercised at the time of such conversion.

29. WITHHOLDING.

In the event that any federal, state, or local income taxes, employment taxes, Federal Insurance Contributions Act ("F.I.C.A.") withholdings or other amounts are required by applicable law or governmental regulation to be withheld from the Participant's salary, wages or other remuneration in connection with the issuance of a Stock Right or Shares under the Plan or for any other reason required by law, the Company may withhold from the Participant's compensation, if any, or may require that the Participant advance in cash to the Company, or to any Affiliate of the Company which employs or employed the Participant, the statutory minimum amount of such withholdings unless a different withholding arrangement, including the use of shares of the Company's Common Stock or a promissory note, is authorized by the Administrator (and permitted by law). For purposes hereof, the fair market value of the shares withheld for purposes of payroll withholding shall be determined in the manner set forth under the definition of Fair Market Value provided in Paragraph 1 above, as of the most recent practicable date prior to the date of exercise. If the Fair Market Value of the shares withheld is less than the amount of payroll withholdings required, the Participant may be required to advance the difference in cash to the Company or the Affiliate employer. The Administrator in its discretion may condition the exercise of an Option for less than the then Fair Market Value on the Participant's payment of such additional withholding.

30. NOTICE TO COMPANY OF DISQUALIFYING DISPOSITION.

Each Employee who receives an ISO must agree to notify the Company in writing immediately after the Employee makes a Disqualifying Disposition of any Shares acquired pursuant to the exercise of an ISO. A Disqualifying Disposition is defined in Section 424(c) of the Code and includes any disposition (including any sale or gift) of such Shares before the later of (a) two years after the date the Employee was granted the ISO, or (b) one year after the date the Employee acquired Shares by exercising the ISO, except as otherwise provided in Section 424(c) of the Code. If the Employee has died before such Shares are sold, these holding period requirements do not apply and no Disqualifying Disposition can occur thereafter.

31. TERMINATION OF THE PLAN.

The Plan will terminate on [ ], 2024, the date which is ten years from the earlier of the date of its adoption by the Board of Directors and the date of its approval by the shareholders of the Company. The Plan may be terminated at an earlier date by vote of the shareholders or the Board of Directors of the Company; provided, however, that any such earlier termination shall not affect any Agreements executed prior to the effective date of such termination. Termination of the Plan shall not affect any Stock Rights theretofore granted.

32. AMENDMENT OF THE PLAN AND AGREEMENTS.

The Plan may be amended by the shareholders of the Company. The Plan may also be amended by the Administrator, including, without limitation, to the extent necessary to qualify any or all outstanding Stock Rights granted under the Plan or Stock Rights to be granted under the Plan for favorable federal income tax treatment as may be afforded incentive stock options under Section 422 of the Code (including deferral of taxation upon exercise), and to the extent necessary to qualify the Shares issuable under the Plan for listing on any national securities exchange or quotation in any national automated quotation system of securities dealers and in order to continue to comply with Section 162(m) of the Code; provided that any amendment approved by the Administrator which the Administrator determines is of a scope that requires shareholder approval shall be subject to obtaining such shareholder approval. Any modification or amendment of the Plan shall not, without the consent of a Participant, adversely affect his or her rights under a Stock Right previously granted to him or her. With the consent of the Participant affected, the Administrator may amend outstanding Agreements in a manner which may be adverse to the Participant but which is not inconsistent with the Plan. In the discretion of the Administrator, outstanding Agreements may be amended by the Administrator in a manner which is not adverse to the Participant. Nothing in this Paragraph 32 shall limit the Administrator's authority to take any action permitted pursuant to Paragraph 25.

33. EMPLOYMENT OR OTHER RELATIONSHIP.

Nothing in this Plan or any Agreement shall be deemed to prevent the Company or an Affiliate from terminating the employment, consultancy or director status of a Participant, nor to prevent a Participant from terminating his or her own employment, consultancy or director status or to give any Participant a right to be retained in employment or other service by the Company or any Affiliate for any period of time.

34. GOVERNING LAW.

This Plan shall be construed and enforced in accordance with the law of the State of Delaware.

Exhibit 10.2.2

Option No.

ASPEN AEROGELS, INC.

Stock Option Grant Notice
Stock Option Grant under the Company's
2014 Employee, Director and Consultant Equity Incentive Plan

1. Name and Address of Participant: _____
2. Date of Option Grant: _____
3. Type of Grant: _____
4. Maximum Number of Shares forwhich this Option is exercisable: _____
5. Exercise (purchase) price per share: _____
6. Option Expiration Date: _____
7. Vesting Start Date: _____
8. Vesting Schedule: This Option shall become exercisable (and the Shares issued upon exercise shall be vested) as follows provided the Participant is an Employee, director or Consultant of the Company or of an Affiliate on the applicable vesting date:

   25% of the Shares will vest and become exercisable on the first anniversary of the Vesting Start Date, and the remaining 75% shall vest and become exercisable in equal monthly installments over the 36 months following the first anniversary of the Vesting Start Date; provided that the number of shares vesting on each date shall be rounded down to the nearest whole number, whilst the number of shares vesting on the final date shall be the remaining unvested balance of the Shares.

The foregoing rights are cumulative and are subject to the other terms and conditions of this Agreement and the Plan.

The Company and the Participant acknowledge receipt of this Stock Option Grant Notice and agree to the terms of the Stock Option Agreement attached hereto and incorporated by reference herein, the Company's 2014 Employee, Director and Consultant Equity Incentive Plan and the terms of this Option Grant as set forth above.

ASPEN AEROGELS, INC.

By: _____
Name: _____
Title: _____

_____
Participant

ASPEN AEROGELS, INC.

STOCK OPTION AGREEMENT - INCORPORATED TERMS AND CONDITIONS

AGREEMENT made as of the date of grant set forth in the Stock Option Grant Notice by and between Aspen Aerogels, Inc. (the "Company"), a Delaware corporation, and the individual whose name appears on the Stock Option Grant Notice (the "Participant").

WHEREAS, the Company desires to grant to the Participant an Option to purchase shares of its common stock, $0.00001 par value per share (the "Shares"), under and for the purposes set forth in the Company's 2014 Employee, Director and Consultant Equity Incentive Plan (the "Plan");

WHEREAS, the Company and the Participant understand and agree that any terms used and not defined herein have the same meanings as in the Plan; and

WHEREAS, the Company and the Participant each intend that the Option granted herein shall be of the type set forth in the Stock Option Grant Notice.

NOW, THEREFORE, in consideration of the mutual covenants hereinafter set forth and for other good and valuable consideration, the parties hereto agree as follows:

1. GRANT OF OPTION .

The Company hereby grants to the Participant the right and option to purchase all or any part of an aggregate of the number of Shares set forth in the Stock Option Grant Notice, on the terms and conditions and subject to all the limitations set forth herein, under United States securities and tax laws, and in the Plan, which is incorporated herein by reference. The Participant acknowledges receipt of a copy of the Plan.

2. EXERCISE PRICE .

The exercise price of the Shares covered by the Option shall be the amount per Share set forth in the Stock Option Grant Notice, subject to adjustment, as provided in the Plan, in the event of a stock split, reverse stock split or other events affecting the holders of Shares after the date hereof (the "Exercise Price"). Payment shall be made in accordance with Paragraph 11 of the Plan.

3. EXERCISABILITY OF OPTION .

Subject to the terms and conditions set forth in this Agreement and the Plan, the Option granted hereby shall become vested and exercisable as set forth in the Stock Option Grant Notice and is subject to the other terms and conditions of this Agreement and the Plan.

4. TERM OF OPTION .

This Option shall terminate on the Option Expiration Date as specified in the Stock Option Grant Notice and, if this Option is designated in the Stock Option Grant Notice as an ISO and the Participant owns as of the date hereof more than 10% of the total combined voting power of all classes of capital stock of the Company or an Affiliate, such date may not be more than five years from the date of this Agreement, but shall be subject to earlier termination as provided herein or in the Plan.

If the Participant ceases to be an Employee, director or Consultant of the Company or of an Affiliate for any reason other than the death or Disability of the Participant, or termination of the Participant for Cause (the "Termination Date"), the Option to the extent then vested and exercisable pursuant to Section 3 hereof as of the Termination Date, and not previously terminated in accordance with this Agreement, may be exercised within three months after the Termination Date, or on or prior to the Option Expiration Date as specified in the Stock Option Grant Notice, whichever is earlier, but may not be exercised thereafter except as set forth below. In such event, the unvested portion of the Option shall not be exercisable and shall expire and be cancelled on the Termination Date.

If this Option is designated in the Stock Option Grant Notice as an ISO and the Participant ceases to be an Employee of the Company or of an Affiliate but continues after termination of employment to provide service to the Company or an Affiliate as a director or Consultant, this Option shall continue to vest in accordance with Section 3 above as if this Option had not terminated until the Participant is no longer providing services to the Company. In such case, this Option shall automatically convert and be deemed a Non-Qualified Option as of the date that is three months from termination of the Participant's employment and this Option shall continue on the same terms and conditions set forth herein until such Participant is no longer providing service to the Company or an Affiliate.

Notwithstanding the foregoing, in the event of the Participant's Disability or death within three months after the Termination Date, the Participant or the Participant's Survivors may exercise the Option within one year after the Termination Date, but in no event after the Option Expiration Date as specified in the Stock Option Grant Notice.

In the event the Participant's service is terminated by the Company or an Affiliate for Cause, the Participant's right to exercise any unexercised portion of this Option even if vested shall cease immediately as of the time the Participant is notified his or her service is terminated for Cause, and this Option shall thereupon terminate. Notwithstanding anything herein to the contrary, if subsequent to the Participant's termination, but prior to the exercise of the Option, the Administrator determines that, either prior or subsequent to the Participant's termination, the Participant engaged in conduct which would constitute Cause, then the Participant shall immediately cease to have any right to exercise the Option and this Option shall thereupon terminate.

In the event of the Disability of the Participant, as determined in accordance with the Plan, the Option shall be exercisable within one year after the Participant's termination of service due to Disability or, if earlier, on or prior to the Option Expiration Date as specified in the Stock Option Grant Notice. In such event, the Option shall be exercisable:

(a) to the extent that the Option has become exercisable but has not been exercised as of the date of the Participant's termination of service due to Disability; and

(b) in the event rights to exercise the Option accrue periodically, to the extent of a pro rata portion through the date of the Participant's termination of service due to Disability of any additional vesting rights that would have accrued on the next vesting date had the Participant not become Disabled. The proration shall be based upon the number of days accrued in the current vesting period prior to the date of the Participant's termination of service due to Disability.

In the event of the death of the Participant while an Employee, director or Consultant of the Company or of an Affiliate, the Option shall be exercisable by the Participant's Survivors within one year after the date of death of the Participant or, if earlier, on or prior to the Option Expiration Date as specified in the Stock Option Grant Notice. In such event, the Option shall be exercisable:

(x) to the extent that the Option has become exercisable but has not been exercised as of the date of death; and

(y) in the event rights to exercise the Option accrue periodically, to the extent of a pro rata portion through the date of death of any additional vesting rights that would have accrued on the next vesting date had the Participant not died. The proration shall be based upon the number of days accrued in the current vesting period prior to the Participant's date of death.

5. METHOD OF EXERCISING OPTION.

Subject to the terms and conditions of this Agreement, the Option may be exercised by written notice to the Company or its designee, in substantially the form of Exhibit A attached hereto (or in such other form acceptable to the Company, which may include electronic notice). Such notice shall state the number of Shares with respect to which the Option is being exercised and shall be signed by the person exercising the Option (which signature may be provided electronically in a form acceptable to the Company). Payment of the Exercise Price for such Shares shall be made in accordance with Paragraph 11 of the Plan. The Company shall deliver such Shares as soon as practicable after the notice shall be received, provided, however, that the Company may delay issuance of such Shares until completion of any action or obtaining of any consent, which the Company deems necessary under any applicable law (including, without limitation, state securities or "blue sky" laws). The Shares as to which the Option shall have been so exercised shall be registered in the Company's share register in the name of the person so exercising the Option (or, if the Option shall be exercised by the Participant and if the Participant shall so request in the notice exercising the Option, shall be registered in the

Company's share register in the name of the Participant and another person jointly, with right of survivorship) and shall be delivered as provided above to or upon the written order of the person exercising the Option. In the event the Option shall be exercised, pursuant to Section 4 hereof, by any person other than the Participant, such notice shall be accompanied by appropriate proof of the right of such person to exercise the Option. All Shares that shall be purchased upon the exercise of the Option as provided herein shall be fully paid and nonassessable.

6. PARTIAL EXERCISE .

Exercise of this Option to the extent above stated may be made in part at any time and from time to time within the above limits, except that no fractional share shall be issued pursuant to this Option.

7. NON-ASSIGNABILITY .

The Option shall not be transferable by the Participant otherwise than by will or by the laws of descent and distribution. If this Option is a Non-Qualified Option then it may also be transferred pursuant to a qualified domestic relations order as defined by the Code or Title I of the Employee Retirement Income Security Act or the rules thereunder and the Participant, with the approval of the Administrator, may transfer the Option for no consideration to or for the benefit of the Participant's Immediate Family (including, without limitation, to a trust for the benefit of the Participant's Immediate Family or to a partnership or limited liability company for one or more members of the Participant's Immediate Family), subject to such limits as the Administrator may establish, and the transferee shall remain subject to all the terms and conditions applicable to the Option prior to such transfer and each such transferee shall so acknowledge in writing as a condition precedent to the effectiveness of such transfer. The term "Immediate Family" shall mean the Participant's spouse, former spouse, parents, children, stepchildren, adoptive relationships, sisters, brothers, nieces, nephews and grandchildren (and, for this purpose, shall also include the Participant). Except as provided above in this paragraph, the Option shall be exercisable, during the Participant's lifetime, only by the Participant (or, in the event of legal incapacity or incompetency, by the Participant's guardian or representative) and shall not be assigned, pledged or hypothecated in any way (whether by operation of law or otherwise) and shall not be subject to execution, attachment or similar process. Any attempted transfer, assignment, pledge, hypothecation or other disposition of the Option or of any rights granted hereunder contrary to the provisions of this Section 7, or the levy of any attachment or similar process upon the Option shall be null and void.

8. NO RIGHTS AS STOCKHOLDER UNTIL EXERCISE .

The Participant shall have no rights as a stockholder with respect to Shares subject to this Agreement until registration of the Shares in the Company's share register in the name of the Participant. Except as is expressly provided in the Plan with respect to certain changes in the capitalization of the Company, no adjustment shall be made for dividends or similar rights for which the record date is prior to the date of such registration.

9. ADJUSTMENTS .

The Plan contains provisions covering the treatment of Options in a number of contingencies such as stock splits and mergers. Provisions in the Plan for adjustment with respect to stock subject to Options and the related provisions with respect to successors to the business of the Company are hereby made applicable hereunder and are incorporated herein by reference.

10. TAXES .

The Participant acknowledges that any income or other taxes due from him or her with respect to this Option or the Shares issuable pursuant to this Option shall be the Participant's responsibility. The Participant acknowledges and agrees that (i) the Participant was free to use professional advisors of his or her choice in connection with this Agreement, has received advice from his or her professional advisors in connection with this Agreement, understands its meaning and import, and is entering into this Agreement freely and without coercion or duress; (ii) the Participant has not received and is not relying upon any advice, representations or assurances made by or on behalf of the Company or any Affiliate or any employee of or counsel to the Company or any Affiliate regarding any tax or other effects or implications of the Option, the Shares or other matters contemplated by this Agreement; and (iii) neither the Administrator, the Company, its Affiliates, nor any of its officers or directors, shall be held liable for any applicable costs, taxes, or penalties associated with the Option if, in fact, the Internal Revenue Service were to determine that the Option constitutes deferred compensation under Section 409A of the Code.

If this Option is designated in the Stock Option Grant Notice as a Non-Qualified Option or if the Option is an ISO and is converted into a Non-Qualified Option and such Non-Qualified Option is exercised, the Participant agrees that the Company may withhold from the Participant's remuneration, if any, the minimum statutory amount of federal, state and local withholding taxes attributable to such amount that is considered compensation includable in such person's gross income. At the Company's discretion, the amount required to be withheld may be withheld in cash from such remuneration, or in kind from the Shares otherwise deliverable to the Participant on exercise of the Option. The Participant further agrees that, if the Company does not withhold an amount from the Participant's remuneration sufficient to satisfy the Company's income tax withholding obligation, the Participant will reimburse the Company on demand, in cash, for the amount under-withheld.

11. PURCHASE FOR INVESTMENT .

Unless the offering and sale of the Shares to be issued upon the particular exercise of the Option shall have been effectively registered under the Securities Act, the Company shall be under no obligation to issue the Shares covered by such exercise unless the Company has determined that such exercise and issuance would be exempt from the registration requirements of the Securities Act and until the following conditions have been fulfilled:

(a) The person(s) who exercise the Option shall warrant to the Company, at the time of such exercise, that such person(s) are acquiring such Shares for

their own respective accounts, for investment, and not with a view to, or for sale in connection with, the distribution of any such Shares, in which event the person(s) acquiring such Shares shall be bound by the provisions of the following legend which shall be endorsed upon any certificate(s) evidencing the Shares issued pursuant to such exercise:

"The shares represented by this certificate have been taken for investment and they may not be sold or otherwise transferred by any person, including a pledgee, unless (1) either (a) a Registration Statement with respect to such shares shall be effective under the Securities Act of 1933, as amended, or (b) the Company shall have received an opinion of counsel satisfactory to it that an exemption from registration under such Act is then available, and (2) there shall have been compliance with all applicable state securities laws;" and

(b) If the Company so requires, the Company shall have received an opinion of its counsel that the Shares may be issued upon such particular exercise in compliance with the Securities Act without registration thereunder. Without limiting the generality of the foregoing, the Company may delay issuance of the Shares until completion of any action or obtaining of any consent, which the Company deems necessary under any applicable law (including without limitation state securities or "blue sky" laws).

12. RESTRICTIONS ON TRANSFER OF SHARES .

12.1 The Participant agrees that in the event the Company proposes to offer for sale to the public any of its equity securities and such Participant is requested by the Company and any underwriter engaged by the Company in connection with such offering to sign an agreement restricting the sale or other transfer of Shares, then it will promptly sign such agreement and will not transfer, whether in privately negotiated transactions or to the public in open market transactions or otherwise, any Shares or other securities of the Company held by him or her during such period as is determined by the Company and the underwriters, not to exceed 180 days following the closing of the offering, plus such additional period of time as may be required to comply with Marketplace Rule 2711 of the National Association of Securities Dealers, Inc. or similar rules thereto (such period, the "Lock-Up Period"). Such agreement shall be in writing and in form and substance reasonably satisfactory to the Company and such underwriter and pursuant to customary and prevailing terms and conditions. Notwithstanding whether the Participant has signed such an agreement, the Company may impose stop-transfer instructions with respect to the Shares or other securities of the Company subject to the foregoing restrictions until the end of the Lock-Up Period.

12.2 The Participant acknowledges and agrees that neither the Company, its shareholders nor its directors and officers, has any duty or obligation to disclose to the Participant any material information regarding the business of the Company or affecting the value of the Shares before, at the time of, or following a termination of the service of the

Participant by the Company, including, without limitation, any information concerning plans for the Company to make a public offering of its securities or to be acquired by or merged with or into another firm or entity.

13. NO OBLIGATION TO MAINTAIN RELATIONSHIP .

The Participant acknowledges that: (i) the Company is not by the Plan or this Option obligated to continue the Participant as an employee, director or Consultant of the Company or an Affiliate; (ii) the Plan is discretionary in nature and may be suspended or terminated by the Company at any time; (iii) the grant of the Option is a one-time benefit which does not create any contractual or other right to receive future grants of options, or benefits in lieu of options; (iv) all determinations with respect to any such future grants, including, but not limited to, the times when options shall be granted, the number of shares subject to each option, the option price, and the time or times when each option shall be exercisable, will be at the sole discretion of the Company; (v) the Participant's participation in the Plan is voluntary; (vi) the value of the Option is an extraordinary item of compensation which is outside the scope of the Participant's employment or consulting contract, if any; and (vii) the Option is not part of normal or expected compensation for purposes of calculating any severance, resignation, redundancy, end of service payments, bonuses, long-service awards, pension or retirement benefits or similar payments.

14. IF OPTION IS INTENDED TO BE AN ISO .

If this Option is designated in the Stock Option Grant Notice as an ISO so that the Participant (or the Participant's Survivors) may qualify for the favorable tax treatment provided to holders of Options that meet the standards of Section 422 of the Code then any provision of this Agreement or the Plan which conflicts with the Code so that this Option would not be deemed an ISO is null and void and any ambiguities shall be resolved so that the Option qualifies as an ISO. The Participant should consult with the Participant's own tax advisors regarding the tax effects of the Option and the requirements necessary to obtain favorable tax treatment under Section 422 of the Code, including, but not limited to, holding period requirements.

Notwithstanding the foregoing, to the extent that the Option is designated in the Stock Option Grant Notice as an ISO and is not deemed to be an ISO pursuant to Section 422(d) of the Code because the aggregate Fair Market Value (determined as of the Date of Option Grant) of any of the Shares with respect to which this ISO is granted becomes exercisable for the first time during any calendar year in excess of $100,000, the portion of the Option representing such excess value shall be treated as a Non-Qualified Option and the Participant shall be deemed to have taxable income measured by the difference between the then Fair Market Value of the Shares received upon exercise and the price paid for such Shares pursuant to this Agreement.

Neither the Company nor any Affiliate shall have any liability to the Participant, or any other party, if the Option (or any part thereof) that is intended to be an ISO is not an ISO or for any action taken by the Administrator, including without limitation the conversion of an ISO to a Non-Qualified Option.

15. NOTICE TO COMPANY OF DISQUALIFYING DISPOSITION OF AN ISO .

If this Option is designated in the Stock Option Grant Notice as an ISO then the Participant agrees to notify the Company in writing immediately after the Participant makes a Disqualifying Disposition of any of the Shares acquired pursuant to the exercise of the ISO. A Disqualifying Disposition is defined in Section 424(c) of the Code and includes any disposition (including any sale) of such Shares before the later of (a) two years after the date the Participant was granted the ISO or (b) one year after the date the Participant acquired Shares by exercising the ISO, except as otherwise provided in Section 424(c) of the Code. If the Participant has died before the Shares are sold, these holding period requirements do not apply and no Disqualifying Disposition can occur thereafter.

16. NOTICES .

Any notices required or permitted by the terms of this Agreement or the Plan shall be given by recognized courier service, facsimile, registered or certified mail, return receipt requested, addressed as follows:

If to the Company:

Aspen Aerogels, Inc.
30 Forbes Road, Bldg B
Northborough, MA 01532
Telephone: (508) 691-1150
Facsimile: (508) 691-1200
Attention: Chief Financial Officer

If to the Participant:

At the address set forth on the Stock Option Grant Notice

or to such other address or addresses of which notice in the same manner has previously been given. Any such notice shall be deemed to have been given upon the earlier of receipt, one business day following delivery to a recognized courier service or three business days following mailing by registered or certified mail.

17. GOVERNING LAW .

This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware, without giving effect to the conflict of law principles thereof. For the purpose of litigating any dispute that arises under this Agreement, the parties hereby consent to exclusive jurisdiction in the Commonwealth of Massachusetts and agree that such litigation shall be conducted in the state courts of Middlesex County, Massachusetts or the federal courts of the United States for the District of Massachusetts.

18. BENEFIT OF AGREEMENT .

Subject to the provisions of the Plan and the other provisions hereof, this Agreement shall be for the benefit of and shall be binding upon the heirs, executors, administrators, successors and assigns of the parties hereto.

19. ENTIRE AGREEMENT .

This Agreement, together with the Plan, embodies the entire agreement and understanding between the parties hereto with respect to the subject matter hereof and supersedes all prior oral or written agreements and understandings relating to the subject matter hereof. No statement, representation, warranty, covenant or agreement not expressly set forth in this Agreement shall affect or be used to interpret, change or restrict, the express terms and provisions of this Agreement, provided, however, in any event, this Agreement shall be subject to and governed by the Plan.

20. MODIFICATIONS AND AMENDMENTS .

The terms and provisions of this Agreement may be modified or amended as provided in the Plan.

21. WAIVERS AND CONSENTS .

Except as provided in the Plan, the terms and provisions of this Agreement may be waived, or consent for the departure therefrom granted, only by written document executed by the party entitled to the benefits of such terms or provisions. No such waiver or consent shall be deemed to be or shall constitute a waiver or consent with respect to any other terms or provisions of this Agreement, whether or not similar. Each such waiver or consent shall be effective only in the specific instance and for the purpose for which it was given, and shall not constitute a continuing waiver or consent.

22. DATA PRIVACY .

By entering into this Agreement, the Participant: (i) authorizes the Company and each Affiliate, and any agent of the Company or any Affiliate administering the Plan or providing Plan recordkeeping services, to disclose to the Company or any of its Affiliates such information and data as the Company or any such Affiliate shall request in order to facilitate the grant of options and the administration of the Plan; (ii) waives any data privacy rights he or she may have with respect to such information; and (iii) authorizes the Company and each Affiliate to store and transmit such information in electronic form.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

Exhibit A

NOTICE OF EXERCISE OF STOCK OPTION

[Form for Shares registered in the United States]

To: **Aspen Aerogels, Inc.**

IMPORTANT NOTICE: This form of Notice of Exercise may only be used at such time as the Company has filed a Registration Statement with the Securities and Exchange Commission under which the issuance of the Shares for which this exercise is being made is registered and such Registration Statement remains effective.

Ladies and Gentlemen:

I hereby exercise my Stock Option to purchase shares (the "Shares") of the common stock, $0.00001 par value, of Aspen Aerogels, Inc. (the "Company"), at the exercise price of $ per share, pursuant to and subject to the terms of that Stock Option Grant Notice dated , 2014.

I understand the nature of the investment I am making and the financial risks thereof. I am aware that it is my responsibility to have consulted with competent tax and legal advisors about the relevant national, state and local income tax and securities laws affecting the exercise of the Option and the purchase and subsequent sale of the Shares.

I am paying the option exercise price for the Shares as follows:

Please issue the Shares (check one):

☐ to me; or

☐ to me and , as joint tenants with right of survivorship,

at the following address:

My mailing address for shareholder communications, if different from the address listed above, is:

_____

_____

_____

Very truly yours,

_____

Participant (signature)

_____

Print Name

_____

Date

Exhibit 10.2.3

RESTRICTED STOCK AGREEMENT

ASPEN AEROGELS, INC.

AGREEMENT made as of the day of , 20 (the "Grant Date"), between Aspen Aerogels, Inc. (the "Company"), a Delaware corporation having its principal place of business in Northborough, Massachusetts and (the "Participant").

WHEREAS, the Company has adopted the 2014 Employee, Director and Consultant Equity Incentive Plan (the "Plan") to promote the interests of the Company by providing an incentive for Employees, directors and Consultants of the Company or its Affiliates;

WHEREAS, pursuant to the provisions of the Plan, the Company desires to offer to the Participant shares of the Company's common stock, $0.00001 par value per share ("Common Stock"), in accordance with the provisions of the Plan, all on the terms and conditions hereinafter set forth;

WHEREAS, the Participant wishes to accept said offer; and

WHEREAS, the parties hereto understand and agree that any terms used and not defined herein have the meanings ascribed to such terms in the Plan.

NOW, THEREFORE, in consideration of the premises and the mutual covenants contained herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto hereby agree as follows:

1. Terms of Grant . The Participant hereby accepts the offer of the Company to issue to the Participant, in accordance with the terms of the Plan and this Agreement, ( ) Shares of the Company's Common Stock (such shares, subject to adjustment pursuant to Section 25 of the Plan and Subsection 2.1(f) hereof, the "Granted Shares") at a purchase price per share of $0.00001 (the "Purchase Price"), receipt of which is hereby acknowledged by the Company [by the Participant's prior service to the Company and which amount will be reported as income on the Participant's W-2 [or 1099] for this calendar year].

2.1. Forfeiture Provisions .

(a) Lapsing Forfeiture Right . In the event that for any reason the Participant is no longer serving as an Employee, director or Consultant of the Company or an Affiliate of the Company prior to , 20 (the "Termination"), the Participant (or the Participant's Survivor) shall, on the date of Termination, immediately forfeit to the Company (or its designee) all of the Granted Shares which have not yet lapsed in accordance with the schedule set forth below (the "Lapsing Forfeiture Right") except as otherwise set forth in Section 2.1(b) and Section 2.1(g).

The Company's Lapsing Forfeiture Right is as follows:

[**Insert Lapsing Forfeiture Right (vesting schedule)**]

(b) Effect of a For Cause Termination . Notwithstanding anything to the contrary contained in this Agreement, in the event the Company terminates the Participant's service as an Employee, director or Consultant for Cause (as defined in the Plan) or in the event the Board of Directors determines, within one

year after the Participant's termination, that either prior or subsequent to the Participant's termination the Participant engaged in conduct that would constitute Cause, all of the Granted Shares then held by the Participant shall be forfeited to the Company immediately as of the time the Participant is notified that he or she has been terminated for Cause or that he or she engaged in conduct which would constitute Cause.

(c) Escrow . The certificates representing all Granted Shares acquired by the Participant hereunder which from time to time are subject to the Lapsing Forfeiture Right shall be delivered to the Company and the Company shall hold such Granted Shares in escrow as provided in this Subsection 2.1(c). Upon the request of the Participant, the Company shall promptly release from escrow and deliver to the Participant the whole number of Granted Shares, if any, as to which the Company's Lapsing Forfeiture Right has lapsed and without the legend set forth in Section 5. In the event of forfeiture to the Company of Granted Shares subject to the Lapsing Forfeiture Right, the Company shall release from escrow and cancel a certificate for the number of Granted Shares so forfeited. Any cash or securities distributed in respect of the Granted Shares held in escrow, including, without limitation, ordinary cash dividends or shares issued as a result of stock splits, stock dividends or other recapitalizations ("Retained Distributions"), shall also be held in escrow in the same manner as the Granted Shares and all Retained Distributions shall be forfeited to the Company or released from escrow and delivered to the Participant, as the case may be, at such time and in such manner as the Granted Shares to which such Retained Distributions so relate. All ordinary cash dividends retained hereunder shall, during the period in which such dividends are retained by the Company, be deposited into an account at a financial institution selected by the Company, which shall not be required to bear interest or be segregated in a separate account.

(d) Prohibition on Transfer . The Participant recognizes and agrees that all Granted Shares and Retained Distributions which are subject to the Lapsing Forfeiture Right may not be sold, transferred, assigned, hypothecated, pledged, encumbered or otherwise disposed of, whether voluntarily or by operation of law, other than to the Company (or its designee). However, the Participant, with the approval of the Administrator, may transfer the Granted Shares and Retained Distributions for no consideration to or for the benefit of the Participant's Immediate Family (including, without limitation, to a trust for the benefit of the Participant's Immediate Family or to a partnership or limited liability company for one or more members of the Participant's Immediate Family), subject to such limits as the Administrator may establish, and the transferee shall remain subject to all the terms and conditions applicable to this Agreement prior to such transfer and each such transferee shall so acknowledge in writing as a condition precedent to the effectiveness of such transfer. The term "Immediate Family" shall mean the Participant's spouse, former spouse, parents, children, stepchildren, adoptive relationships, sisters, brothers, nieces and nephews and grandchildren and, for this purpose, shall also include the Participant. The Company shall not be required to transfer any Granted Shares or Retained Distributions on its books which shall have been sold, assigned or otherwise transferred in violation of this Subsection 2.1(d), or to treat as the owner of such Granted Shares or Retained Distributions, or to accord the right to vote as such owner or to pay dividends to, any person or organization to which any such Granted Shares or Retained Distributions shall have been so sold, assigned or otherwise transferred, in violation of this Subsection 2.1(d).

(e) Failure to Deliver Granted Shares to be Forfeited . In the event that the Granted Shares to be forfeited to the Company under this Agreement are not in the Company's possession pursuant to Subsection 2.1(c) above or otherwise and the Participant or the Participant's Survivor fails to deliver such Granted Shares to the Company (or its designee), the Company may immediately take such action as is appropriate to transfer record title of such Granted Shares from the Participant to the Company (or its designee) and treat the Participant and such Granted Shares in all respects as if delivery of such Granted Shares had been made as required by this Agreement. The Participant hereby irrevocably grants the Company a power of attorney which shall be coupled with an interest for the purpose of effectuating the preceding sentence.

(f) Adjustments . The Plan contains provisions covering the treatment of Shares in a number of contingencies such as stock splits and mergers. Provisions in the Plan for adjustment with respect to the Shares and the related provisions with respect to successors to the business of the Company are hereby made applicable hereunder and are incorporated herein by reference.

(g) Effect of Change of Control . Except as otherwise provided in Subsection 2.1(b) above, the Company's Lapsing Repurchase Right shall terminate, and the Participant's ownership of all Granted Shares then owned by the Participant shall become vested in the event of a Change of Control (as defined below), in accordance with the terms and conditions set forth in Section 25(b) of the Plan.

"Change of Control" means the occurrence of any of the following events:

(i) Ownership. Any "Person" (as such term is used in Sections 13(d) and 14(d) of the Exchange Act) becomes the "Beneficial Owner" (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of securities of the Company representing 50% or more of the total voting power represented by the Company's then outstanding voting securities (excluding for this purpose any such voting securities held by the Company or its Affiliates or by any employee benefit plan of the Company) pursuant to a transaction or a series of related transactions; or

(ii) Merger/Sale of Assets. (A) A merger or consolidation of the Company whether or not approved by the Board of Directors, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or the parent of such corporation) more than 50% of the total voting power represented by the voting securities of the Company or such surviving entity or parent of such corporation, as the case may be, outstanding immediately after such merger or consolidation; or (B) the sale or disposition by the Company of all or substantially all of the Company's assets in a transaction requiring stockholder approval; or

(iii) Change in Board Composition. A change in the composition of the Board of Directors, as a result of which fewer than a majority of the directors are Incumbent Directors. "Incumbent Directors" shall mean directors who either (A) are directors of the Company as of , 20 , or (B) are elected, or nominated for election, to the Board of Directors with the affirmative votes of at least a majority of the Incumbent Directors at the time of such election or nomination (but shall not include an individual whose election or nomination is in connection with an actual or threatened proxy contest relating to the election of directors to the Company).

2.2 General Restrictions on Transfer of Granted Shares .

(a) If in connection with a registration statement filed by the Company pursuant to the Securities Act of 1933, as amended (the "1933 Act"), the Company or its underwriter so requests, the Participant will agree not to sell any of his or her Granted Shares whether or not the Lapsing Forfeiture Right has lapsed for a period not to exceed the lesser of: (i) 210 days following the effectiveness of such registration statement or (ii) such period as the officers and directors of the Company agree not to sell their Common Stock of the Company.

(b) The Participant acknowledges and agrees that neither the Company, nor its shareholders nor its directors and officers, has any duty or obligation to disclose to the Participant any material information

regarding the business of the Company or affecting the value of the Granted Shares before, at the time of, or following a Termination, including, without limitation, any information concerning plans for the Company to make a public offering of its securities or to be acquired by or merged with or into another firm or entity.

3. Securities Law Compliance . The Participant specifically acknowledges and agrees that any sales of Granted Shares shall be made in accordance with the requirements of the 1933 Act.

4. Rights as a Stockholder . The Participant shall have all the rights of a stockholder with respect to the Granted Shares, including voting and dividend rights, subject to the transfer and other restrictions set forth herein, including pursuant to Section 2.1(c) hereof, and in the Plan.

5. Legend . In addition to any legend required pursuant to the Plan, all certificates representing the Granted Shares to be issued to the Participant pursuant to this Agreement shall have endorsed thereon a legend substantially as follows:

> "The shares represented by this certificate are subject to restrictions set forth in a Restricted Stock Agreement dated as of , 20 with this Company, a copy of which Agreement is available for inspection at the offices of the Company or will be made available upon request."

6. Incorporation of the Plan . The Participant specifically understands and agrees that the Granted Shares issued under the Plan are being sold to the Participant pursuant to the Plan, a copy of which Plan the Participant acknowledges he or she has read and understands and by which Plan he or she agrees to be bound. The provisions of the Plan are incorporated herein by reference.

7. Tax Liability of the Participant and Payment of Taxes . The Participant acknowledges and agrees that any income or other taxes due from the Participant with respect to the Granted Shares issued pursuant to this Agreement, including, without limitation, the Lapsing Forfeiture Right, shall be the Participant's responsibility. Without limiting the foregoing, the Participant agrees that, to the extent that the lapsing of restrictions on disposition of any of the Granted Shares or the declaration of dividends on any such shares before the lapse of such restrictions on disposition results in the Participant's being deemed to be in receipt of earned income under the provisions of the Code, the Company shall be entitled to immediate payment from the Participant of the amount of any tax required to be withheld by the Company.

Upon execution of this Agreement, the Participant may file an election under Section 83 of the Code. The Participant acknowledges that if he or she does not file such an election, as the Granted Shares are released from the Lapsing Forfeiture Right in accordance with Section 2.1, the Participant will have income for tax purposes equal to the fair market value of the Granted Shares at such date, less the price paid for the Granted Shares by the Participant.

8. Equitable Relief . The Participant specifically acknowledges and agrees that in the event of a breach or threatened breach of the provisions of this Agreement or the Plan, including the attempted transfer of the Granted Shares by the Participant in violation of this Agreement, monetary damages may not be adequate to compensate the Company, and, therefore, in the event of such a breach or threatened breach, in addition to any right to damages, the Company shall be entitled to equitable relief in any court having competent jurisdiction. Nothing herein shall be construed as prohibiting the Company from pursuing any other remedies available to it for any such breach or threatened breach.

9. No Obligation to Maintain Relationship . The Company is not by the Plan or this Agreement obligated to continue the Participant as an Employee, director or Consultant of the Company or an Affiliate of the Company. The Participant acknowledges: (i) that the Plan is discretionary in nature and may be suspended or terminated by the Company at any time; (ii) that the grant of the Granted Shares is a one-time

benefit which does not create any contractual or other right to receive future grants of shares, or benefits in lieu of shares; (iii) that all determinations with respect to any such future grants, including, but not limited to, the times when shares shall be granted, the number of shares to be granted, the purchase price, and the time or times when each share shall be free from a lapsing forfeiture right, will be at the sole discretion of the Company; (iv) that the Participant's participation in the Plan is voluntary; (v) that the value of the Granted Shares is an extraordinary item of compensation; and (vi) that the Granted Shares are not part of normal or expected compensation for purposes of calculating any severance, resignation, redundancy, end of service payments, bonuses, long-service awards, pension or retirement benefits or similar payments.

10. Notices . Any notices required or permitted by the terms of this Agreement or the Plan shall be given by recognized courier service, facsimile, registered or certified mail, return receipt requested, addressed as follows:

If to the Company:

Aspen Aerogels, Inc.
30 Forbes Road, Building B
Northborough, MA 01532
Attn: Stock Plan Administrator

If to the Participant:

_____
_____
_____
_____

or to such other address or addresses of which notice in the same manner has previously been given. Any such notice shall be deemed to have been given on the earliest of receipt, one business day following delivery by the sender to a recognized courier service, or three business days following mailing by registered or certified mail.

11. Benefit of Agreement . Subject to the provisions of the Plan and the other provisions hereof, this Agreement shall be for the benefit of and shall be binding upon the heirs, executors, administrators, successors and assigns of the parties hereto.

12. Governing Law . This Agreement shall be construed and enforced in accordance with the laws of the State of Delaware, without giving effect to the conflict of law principles thereof. For the purpose of litigating any dispute that arises under this Agreement, whether at law or in equity, the parties hereby consent to exclusive jurisdiction in Massachusetts and agree that such litigation shall be conducted in the courts of the Commonwealth of Massachusetts or the federal courts of the United States for the District of Massachusetts.

13. Severability . If any provision of this Agreement is held to be invalid or unenforceable by a court of competent jurisdiction, then such provision or provisions shall be modified to the extent necessary to make such provision valid and enforceable, and to the extent that this is impossible, then such provision shall be deemed to be excised from this Agreement, and the validity, legality and enforceability of the rest of this Agreement shall not be affected thereby.

14. Entire Agreement . This Agreement, together with the Plan, constitutes the entire agreement and understanding between the parties hereto with respect to the subject matter hereof and supersedes all

prior oral or written agreements and understandings relating to the subject matter hereof. No statement, representation, warranty, covenant or agreement not expressly set forth in this Agreement shall affect or be used to interpret, change or restrict the express terms and provisions of this Agreement provided, however, in any event, this Agreement shall be subject to and governed by the Plan.

15. Modifications and Amendments; Waivers and Consents . The terms and provisions of this Agreement may be modified or amended as provided in the Plan. Except as provided in the Plan, the terms and provisions of this Agreement may be waived, or consent for the departure therefrom granted, only by written document executed by the party entitled to the benefits of such terms or provisions. No such waiver or consent shall be deemed to be or shall constitute a waiver or consent with respect to any other terms or provisions of this Agreement, whether or not similar. Each such waiver or consent shall be effective only in the specific instance and for the purpose for which it was given, and shall not constitute a continuing waiver or consent.

16. Consent of Spouse/Domestic Partner . If the Participant has a spouse or domestic partner as of the date of this Agreement, the Participant's spouse or domestic partner shall execute a Consent of Spouse/Domestic Partner in the form of Exhibit A hereto, effective as of the date hereof. Such consent shall not be deemed to confer or convey to the spouse or domestic partner any rights in the Granted Shares that do not otherwise exist by operation of law or the agreement of the parties. If the Participant subsequent to the date hereof, marries, remarries or applies to the Company for domestic partner benefits, the Participant shall, not later than 60 days thereafter, obtain his or her new spouse/domestic partner's acknowledgement of and consent to the existence and binding effect of all restrictions contained in this Agreement by having such spouse/domestic partner execute and deliver a Consent of Spouse/Domestic Partner in the form of Exhibit A .

17. Counterparts . This Agreement may be executed in one or more counterparts, and by different parties hereto on separate counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

18. Data Privacy . By entering into this Agreement, the Participant: (i) authorizes the Company and each Affiliate, and any agent of the Company or any Affiliate administering the Plan or providing Plan record keeping services, to disclose to the Company or any of its Affiliates such information and data as the Company or any such Affiliate shall request in order to facilitate the grant of Shares and the administration of the Plan; and (ii) authorizes the Company and each Affiliate to store and transmit such information in electronic form for the purposes set forth in this Agreement.

[THE NEXT PAGE IS THE SIGNATURE PAGE]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

ASPEN AEROGELS, INC.

By: _____
Name:
Title:

Participant:

_____

EXHIBIT A

CONSENT OF SPOUSE/DOMESTIC PARTNER

I, , spouse or domestic partner of , acknowledge that I have read the RESTRICTED STOCK AGREEMENT dated as of , 20 (the "Agreement") to which this Consent is attached as Exhibit A and that I know its contents. Capitalized terms used and not defined herein shall have the meanings assigned to such terms in the Agreement. I am aware that by its provisions the Granted Shares granted to my spouse/domestic partner pursuant to the Agreement are subject to a Lapsing Forfeiture Right in favor of Aspen Aerogels, Inc. (the "Company") and that, accordingly, I may be required to forfeit to the Company any or all of the Granted Shares of which I may become possessed as a result of a gift from my spouse/domestic partner or a court decree and/or any property settlement in any domestic litigation.

I hereby agree that my interest, if any, in the Granted Shares subject to the Agreement shall be irrevocably bound by the Agreement and further understand and agree that any community property interest I may have in the Granted Shares shall be similarly bound by the Agreement.

I agree to the Lapsing Forfeiture Right described in the Agreement and I hereby consent to the forfeiture of the Granted Shares to the Company by my spouse/domestic partner or my spouse/domestic partner's legal representative in accordance with the provisions of the Agreement. Further, as part of the consideration for the Agreement, I agree that at my death, if I have not disposed of any interest of mine in the Granted Shares by an outright bequest of the Granted Shares to my spouse or domestic partner, then the Company shall have the same rights against my legal representative to exercise its rights to the Granted Shares with respect to any interest of mine in the Granted Shares as it would have had pursuant to the Agreement if I had acquired the Granted Shares pursuant to a court decree in domestic litigation.

I AM AWARE THAT THE LEGAL, FINANCIAL AND RELATED MATTERS CONTAINED IN THE AGREEMENT ARE COMPLEX AND THAT I AM FREE TO SEEK INDEPENDENT PROFESSIONAL GUIDANCE OR COUNSEL WITH RESPECT TO THIS CONSENT. I HAVE EITHER SOUGHT SUCH GUIDANCE OR COUNSEL OR DETERMINED AFTER REVIEWING THE AGREEMENT CAREFULLY THAT I WILL WAIVE SUCH RIGHT.

Dated as of the day of , 20 .

Print name:

Exhibit 10.15

ASPEN AEROGELS, INC.
BONUS PLAN

ARTICLE 1
Purpose

1.1 Purpose . The purpose of the Bonus Plan (the " Plan ") is to promote the creation of value for shareholders of Aspen Aerogels, Inc. (the " Company ") by closely aligning the interests of Participants with those goals and expectations established for the Company by the Board of Directors of the Company (the " Board ").

ARTICLE 2
Eligibility

2.1 Eligibility . Each individual who has been selected to participate in the Plan (the " Participants ") shall be issued a participation letter (a " Participation Letter ") setting forth the terms and conditions of such Participant's participation in the Plan as determined by the Administrator in its sole discretion.

ARTICLE 3
Bonus Opportunity

3.1 Bonus Opportunity . Each Participation Letter shall set forth a target bonus opportunity level for each Participant (whether as a percentage of a Participant's then current base salary or as a dollar amount or otherwise as determined by the Administrator). The incentive bonus opportunity represents a target cash award (" Target Award ") with payment contingent upon achievement of specified performance metrics set forth in the Participation Letter over the applicable performance period set forth in the Participation Letter (the " Performance Period ").

3.2 Performance Metrics .

3.2.1 Participant Designations . Each Participation Letter shall classify a Participant as either a sales representative, technical support personnel, corporate personnel or other.

3.2.2 Performance Metrics . Each Participation Letter shall set forth and establish the performance metrics or goals to be applicable for a Participant. Performance metrics shall be established by the Administrator and may include, but are not limited to, attaining a "segment revenue" goal as set forth in a Participation letter (the " Segment Goal "), attaining a Company revenue goal as set forth in a Participation Letter (the " Company Goal "), attaining individual "motivation by objective goals" as set forth in a Participation Letter (the " MBO Goals ", attaining a Company EBITDA goal as set forth in a Participation Letter (the " EBITDA Goal ") and collectively with the Segment Goal, the Company Goal and the MBO Goals and such other performance metrics that will be established from time to time, " Goals "). "Segment revenue" means that portion of Company revenue derived from the geographical region and/or business group assigned to a Participant or group of Participants as detailed on a Participation Letter. "Company revenue" and "EBITDA" shall be based upon and conclusively determined by reference to the Company's unaudited financials.

3.2.3 Allocation of Performance Metrics . Each Participation Letter shall set forth and establish a percentage allocation of a Target Award that will correlate to the Goals set forth in a Participation Letter. The designated percentage of the Target Award will be achieved based on achievement of the applicable Goals.

3.2.4 Thresholds . Each Participation Letter shall set forth and establish minimum threshold achievement levels applicable to one or more Goals, with such thresholds expressed as a percentage achievement of the underlying Goal. Partial payments of a Target Award allocated to such a Goal shall be made above such thresholds. Certain Goals may have 100% thresholds, in which case, the Goal must be achieved in order for a Target Award allocated to such a Goal to be payable.

3.2.5 Upside Payouts . The Participation Letter may also set forth additional payments above the Target Award in the event that one or more Goals are exceeded.

3.3 Additional Goals/Special Awards . The Administrator may in its sole discretion include such other goals and awards in the Participation Letter.

3.4 Payment . Following the completion of the Performance Period, the Administrator shall determine the level of performance achieved in respect of the Goals set forth in a Participation Letter for the Performance Period. Upon approval and certification by the Administrator of the achieved performance, payment in cash, less any applicable tax withholdings, shall be made to each eligible Participant as soon as practicable but no later than March 15 of the calendar year immediately following the Performance Period in a single lump sum.

3.5 Continued Service . Except as described in the following sentence, if a Participant voluntarily terminates employment during a Performance Period, the Participant will not be eligible for a payment. If a Participant is terminated by the Company other than for cause, or "retires" from the Company, as contemplated by the Company's retirement policy as then in effect, the Participant will receive a prorated payout based on the date of termination of employment and achievement of Goals at such time as payment is otherwise made to other Participants under the Plan.

ARTICLE 4
Administration

4.1 Administration . The Compensation Committee of the Board shall be the administrator of the Plan until such time as the Board shall otherwise determine. The Administrator may delegate such of its duties to officers of the Company as it shall determine.

4.2 Authority of Administrator . The Administrator shall have authority, duty and power to interpret and construe the provisions of the Plan as it deems appropriate, to adopt, establish and revise rules, procedures and regulations relating to the Plan, to determine the conditions subject to which any benefits may be payable, to resolve all factual and legal

questions concerning the status of the Participants and others under the Plan, including but not limited to, eligibility for benefits and to make any other determinations which it believes necessary or advisable for the administration of the Plan. Benefits under this Plan will be payable only if the Administrator decides in its sole discretion that the applicant is entitled to them under the Plan. The determinations, interpretations, and regulations of the Administrator and the calculations of the Administrator shall be final and binding on all persons and parties concerned.

ARTICLE 5
Amendment and Termination of the Plan

5.1 Amendment and Termination of the Plan . The Administrator reserves the power to alter, amend, wholly revise or terminate the Plan at any time and from time to time and the interest of each Participant is subject to the powers so reserved; provided, however, that no amendment or termination shall be effective without the consent of a Participant to the extent that it would have a materially adverse impact on a Participant's economic benefit under any Participation Letter.

ARTICLE 6
Miscellaneous

6.1 Unsecured General Creditor . Participants and their beneficiaries, heirs, successors and assigns shall have no legal or equitable rights, interests or claims in any property or assets of the Company. For purposes of the payment of benefits under this Plan, any and all of the Company's assets shall be, and remain, the general, unpledged unrestricted assets of the Company. The Company's obligation under the Plan shall be merely that of an unfunded and unsecured promise to pay money in the future.

6.2 Nonassignability . Neither a Participant nor any other person shall have any right to commute, sell, assign, transfer, pledge, anticipate, mortgage or otherwise encumber, transfer, hypothecate, alienate or convey in advance of actual receipt, the amounts, if any, payable hereunder, or any part thereof, which are, and all rights to which are expressly declared to be, unassignable and non-transferable. No part of the amounts payable shall, prior to actual payment, be subject to seizure, attachment, garnishment or sequestration for the payment of any debts, judgments, alimony or separate maintenance owed by a Participant or any other person, be transferable by operation of law in the event of a Participant's or any other person's bankruptcy or insolvency or be transferable to a spouse as a result of a property settlement or otherwise.

6.3 Not a Contract of Employment . The terms and conditions of this Plan shall not be deemed to constitute a contract of employment between the Company and the Participant. Nothing in this Plan shall be deemed to give a Participant the right to be retained in the service of the Company.

6.4 Governing Law . All issues concerning this Agreement shall be governed by and construed in accordance with the laws of the Commonwealth of Massachusetts, without giving effect to any choice of law or conflict of law provision or rule (whether of the Commonwealth of Massachusetts or any other jurisdiction) that would cause the application of the law of any jurisdiction other than the Commonwealth of Massachusetts.

6.5 Waiver of Jury Trial . The parties to this Agreement each hereby waives, to the fullest extent permitted by law, any right to trial by jury of any claim, demand, action, or cause of action (i) arising under this Agreement or (ii) in any way connected with or related or incidental to the dealings of the parties hereto in respect of this Agreement or any of the transactions related hereto, in each case whether now existing or hereafter arising, and whether in contract, tort, equity, or otherwise. The parties to this Agreement each hereby agrees and consents that any such claim, demand, action, or cause of action shall be decided by court trial without a jury and that the parties to this Agreement may file an original counterpart or a copy of this Agreement with any court as written evidence of the consent of the parties hereto to the waiver of their right to trial by jury.

2014 Participation Letter
Corporate Personnel

Aspen Aerogels, Inc.
Bonus Plan

Name: Donald R. Young **Date:** February 7, 2014

The outline below describes your participation for the 2014 Fiscal Year in the Aspen Aerogels, Inc. Bonus Plan (the "Plan"). This Participation Letter is subject to the terms and conditions of the Plan, a copy of which has been provided to you.

1. **Designation:** Corporate Participant

2. **Target Award:** 75% of base salary or $337,500.00

3. **Performance Period:** 2014 Fiscal Year

4. **Performance Metrics**
   - **Company Revenue Goal:** $97.5 million
   - **EBITDA Goal:** $ 2.0 million

5. **Allocation of Target Award to Goals**
   - 33% or $111,375.00 based on Company Revenue Goal
   - 67% or $226,125.00 based on EBITDA Goal

6. **Thresholds**
   - 90% of the Company Revenue Goal
   - EBITDA ≥ $0M for the EBITDA Goal ("EBITDA Goal Threshold")
   - If the Revenue or EBITDA Threshold is achieved, you will earn a bonus equal to a pro rata portion of such goal's target award based on a straight line interpolation between the applicable threshold and related goal.
   - THERE WILL BE NO PAYOUT UNDER EITHER GOAL UNLESS EBITDA GOAL THRESHOLD IS ACHIEVED.

7. **Payouts above Threshold**
   - You will earn a bonus for actual Company Revenue and EBITDA above Threshold equal to:

     Company Revenue Goal: $11,423.08 per $1M

     EBTIDA Goal: $113,062.50 per $1M

8. Examples

- **Revenue of $86.5M and EBITDA of ($1.0)M:**

  No payout under either goal as EBITDA Goal Threshold not achieved.

- **Revenue of $99.5M and EBITDA of 2.5M:**

  Revenue exceeds Target by $2.0M

  Payout of Target Award plus 2.0 * $11,423.08
  = $111,375.00 + $22,846.16
  = $134,221.16

  EBITDA exceeds Target by $ 0.5M

  Payout of Target Award plus 0.5 * $113,062.50
  = $226,125.00 + $56,531.25
  = $282,656.25

  Total Payout:

  Revenue Payout + EBITDA Payout
  = $134,221.16 + $282,656.25
  = $416,877.41

- **Revenue of $93.6M and EBITDA of $1.5M:**

  Revenue exceeds Threshold and is equal to 96% of Target

  Payout of (96% - 90%) / (100% - 90%) * Target Award
  = 60% * $111,375 = $66,825.00

  EBITDA exceeds Threshold and is equal to 75% of Target

  Payout of $1.5M / $2.0M * Target Award
  = 75% * $226,125.00
  = $169,593.75

  Total Payout:

  Revenue Payout + EBITDA Payout
  = $66,825.00 + $169,593.75
  = $236,418.75

All amounts shown are based on current base salary. However, actual bonus will be calculated and paid based on actual base salary in effect at December 31, 2014.

Accepted: I hereby accept my designation as a Participant in the Plan. I agree to keep the terms and conditions of my participation in the Plan confidential and not to divulge such terms and conditions.

Signature: /s/ Donald R. Young Dated: February 7, 2014

2014 Participation Letter
Corporate Personnel

Aspen Aerogels, Inc.
Bonus Plan

Name: John Fairbanks **Date:** February 7, 2014

The outline below describes your participation for the 2014 Fiscal Year in the Aspen Aerogels, Inc. Bonus Plan (the "Plan"). This Participation Letter is subject to the terms and conditions of the Plan, a copy of which has been provided to you.

1. Designation: Corporate Participant

2. Target Award: 35% of base salary or $93,486.30

3. Performance Period: 2014 Fiscal Year

4. Performance Metrics

- **Company Revenue Goal:** $97.5 million
- **EBITDA Goal:** $ 2.0 million

5. Allocation of Target Award to Goals

- 33% or $30,850.48 based on Company Revenue Goal
- 67% or $62,635.82 based on EBITDA Goal

6. Thresholds

- 90% of the Company Revenue Goal
- EBITDA ≥ $0M for the EBITDA Goal ("EBITDA Goal Threshold")
- If the Revenue or EBITDA Threshold is achieved, you will earn a bonus equal to a pro rata portion of such goal's target award based on a straight line interpolation between the applicable threshold and related goal.
- THERE WILL BE NO PAYOUT UNDER EITHER GOAL UNLESS EBITDA GOAL THRESHOLD IS ACHIEVED.

7. Payouts above Threshold

- You will earn a bonus for actual Company Revenue and EBITDA above Threshold equal to:

  Company Revenue Goal: $3,164.15 per $1M

  EBTIDA Goal: $31,317.91 per $1M

8. Examples

- **Revenue of $86.5M and EBITDA of ($1.0)M:**

  No payout under either goal as EBITDA Goal Threshold not achieved.

- **Revenue of $99.5M and EBITDA of 2.5M:**

  Revenue exceeds Target by $2.0M

  Payout of Target Award plus 2.0 * $3,164.15
  = $30,850.48 + $6,328.30
  = $37,178.78

  EBITDA exceeds Target by $ 0.5M

  Payout of Target Award plus 0.5 * $31,317.91
  = $62,635.82 + $15,658.96
  = $78,294.78

  Total Payout:

  Revenue Payout + EBITDA Payout
  = $37,178.78 + $78,294.78
  = $115,473.56

- **Revenue of $93.6M and EBITDA of $1.5M:**

  Revenue exceeds Threshold and is equal to 96% of Target

  Payout of (96% - 90%) / (100% - 90%) * Target Award
  = 60% * $30,850.48
  = $18,510.29

  EBITDA exceeds Threshold and is equal to 75% of Target

  Payout of $1.5M / $2.0M * Target Award
  = 75% * $62,635.82
  = $46,976.87

  Total Payout:

  Revenue Payout + EBITDA Payout
  = $18,510.29 + $46,976.87
  = $65,487.15

All amounts shown are based on current base salary. However, actual bonus will be calculated and paid based on actual base salary in effect at December 31, 2014.

Accepted: I hereby accept my designation as a Participant in the Plan. I agree to keep the terms and conditions of my participation in the Plan confidential and not to divulge such terms and conditions.

Signature: /s/ John Fairbanks Dated: February 7, 2014

2014 Participation Letter
Corporate Personnel

Aspen Aerogels, Inc.
Bonus Plan

Name: George Gould **Date:** February 7, 2014

The outline below describes your participation for the 2014 Fiscal Year in the Aspen Aerogels, Inc. Bonus Plan (the "Plan"). This Participation Letter is subject to the terms and conditions of the Plan, a copy of which has been provided to you.

1. **Designation:** Corporate Participant

2. **Target Award:** 35% of base salary or $80,850.00

3. **Performance Period:** 2014 Fiscal Year

4. **Performance Metrics**
   - **Company Revenue Goal:** $97.5 million
   - **EBITDA Goal:** $ 2.0 million

5. **Allocation of Target Award to Goals**
   - 33% or $26,680.50 based on Company Revenue Goal
   - 67% or $54,169.50 based on EBITDA Goal

6. **Thresholds**
   - 90% of the Company Revenue Goal
   - EBITDA ≥ $0M for the EBITDA Goal ("EBITDA Goal Threshold")
   - If the Revenue or EBITDA Threshold is achieved, you will earn a bonus equal to a pro rata portion of such goal's target award based on a straight line interpolation between the applicable threshold and related goal.
   - THERE WILL BE NO PAYOUT UNDER EITHER GOAL UNLESS EBITDA GOAL THRESHOLD IS ACHIEVED.

7. **Payouts above Threshold**
   - You will earn a bonus for actual Company Revenue and EBITDA above Threshold equal to:

     Company Revenue Goal: $2,736.46 per $1M

     EBTIDA Goal: $27,084.75 per $1M

8. Examples

- **Revenue of $86.5M and EBITDA of ($1.0)M:**

  No payout under either goal as EBITDA Goal Threshold not achieved.

- **Revenue of $99.5M and EBITDA of 2.5M:**

  Revenue exceeds Target by $2.0M

  Payout of Target Award plus 2.0 * $2,736.46
  = $26,680.50 + $5,472.92
  = $32,153.42

  EBITDA exceeds Target by $ 0.5M

  Payout of Target Award plus 0.5 * $27,084.75
  = $54,169.50 + $13,542.38
  = $67,711.88

  Total Payout:

  Revenue Payout + EBITDA Payout
  = $32,153.42 + $67,711.88
  = $99,865.30

- **Revenue of $93.6M and EBITDA of $1.5M:**

  Revenue exceeds Threshold and is equal to 96% of Target

  Payout of (96% - 90%) / (100% - 90%) * Target Award
  = 60% * $26,680.50
  = $16,008.30

  EBITDA exceeds Threshold and is equal to 75% of Target

  Payout of $1.5M / $2.0M * Target Award
  = 75% * $54,169.50
  = $40,627.13

  Total Payout:

  Revenue Payout + EBITDA Payout
  = $16,008.30 + $40,627.13
  = $56,635.43

All amounts shown are based on current base salary. However, actual bonus will be calculated and paid based on actual base salary in effect at December 31, 2014.

Accepted: I hereby accept my designation as a Participant in the Plan. I agree to keep the terms and conditions of my participation in the Plan confidential and not to divulge such terms and conditions.

Signature: /s/ George Gould Dated: 2/7/14

2014 Participation Letter
Corporate Personnel

Aspen Aerogels, Inc.
Bonus Plan

Name: Kevin Schmidt **Date:** February 7, 2014

The outline below describes your participation for the 2014 Fiscal Year in the Aspen Aerogels, Inc. Bonus Plan (the "Plan"). This Participation Letter is subject to the terms and conditions of the Plan, a copy of which has been provided to you.

1. Designation: Corporate Participant

2. Target Award: 35% of base salary or $98,510.23

3. Performance Period: 2014 Fiscal Year

4. Performance Metrics

- **Company Revenue Goal:** **$** 97.5 million
- **EBITDA Goal:** $ 2.0 million

5. Allocation of Target Award to Goals

- 33% or $32,508.38 based on Company Revenue Goal
- 67% or $66,001.85 based on EBITDA Goal

6. Thresholds

- 90% of the Company Revenue Goal
- EBITDA ≥ $0M for the EBITDA Goal ("EBITDA Goal Threshold")
- If the Revenue or EBITDA Threshold is achieved, you will earn a bonus equal to a pro rata portion of such goal's target award based on a straight line interpolation between the applicable threshold and related goal.
- THERE WILL BE NO PAYOUT UNDER EITHER GOAL UNLESS EBITDA GOAL THRESHOLD IS ACHIEVED.

7. Payouts above Threshold

- You will earn a bonus for actual Company Revenue and EBITDA above Threshold equal to:

  Company Revenue Goal: $3,334.19 per $1M

  EBTIDA Goal: $33,000.93 per $1M

8. Examples

- **Revenue of $86.5M and EBITDA of ($1.0)M:**

  No payout under either goal as EBITDA Goal Threshold not achieved.

- **Revenue of $99.5M and EBITDA of 2.5M:**

  Revenue exceeds Target by $2.0M

  Payout of Target Award plus 2.0 * $3,334.19
  = $32,508.38 + $6,668.38
  = $39,176.76

  EBITDA exceeds Target by $ 0.5M

  Payout of Target Award plus 0.5 * $33,000.93
  = $66,001.85 + $16,500.46
  = $82,502.32

  Total Payout:

  Revenue Payout + EBITDA Payout
  = $39,176.76 + $82,502.32
  = $121,679.08

- **Revenue of $93.6M and EBITDA of $1.5M:**

  Revenue exceeds Threshold and is equal to 96% of Target

  Payout of (96% - 90%) / (100% - 90%) * Target Award
  = 60% * $32,508.38
  = $19,505.03

  EBITDA exceeds Threshold and is equal to 75% of Target

  Payout of $1.5M / $2.0M * Target Award
  = 75% * $66,001.85
  = $49,501.39

  Total Payout:

  Revenue Payout + EBITDA Payout
  = $19,505.03 + $49,501.39
  = $69,006.42

All amounts shown are based on current base salary. However, actual bonus will be calculated and paid based on actual base salary in effect at December 31, 2014.

Accepted: I hereby accept my designation as a Participant in the Plan. I agree to keep the terms and conditions of my participation in the Plan confidential and not to divulge such terms and conditions.

Signature: /s/ Kevin Schmidt Dated: 3/21/14

2014 Participation Letter
Corporate Personnel

Aspen Aerogels, Inc.
Bonus Plan

Name: Corby Whitaker **Date:** February 7, 2014

The outline below describes your participation for the 2014 Fiscal Year in the Aspen Aerogels, Inc. Bonus Plan (the "Plan"). This Participation Letter is subject to the terms and conditions of the Plan, a copy of which has been provided to you.

1. Designation: Corporate Participant

2. Target Award: 35% of base salary or $99,137.50

3. Performance Period: 2014 Fiscal Year

4. Performance Metrics

- **Company Revenue Goal:** **$** 97.5 million
- **EBITDA Goal:** $ 2.0 million

5. Allocation of Target Award to Goals

- 33% or $32,715.38 based on Company Revenue Goal
- 67% or $66,422.13 based on EBITDA Goal

6. Thresholds

- 90% of the Company Revenue Goal
- EBITDA ≥ $0M for the EBITDA Goal ("EBITDA Goal Threshold")
- If the Revenue or EBITDA Threshold is achieved, you will earn a bonus equal to a pro rata portion of such goal's target award based on a straight line interpolation between the applicable threshold and related goal.
- THERE WILL BE NO PAYOUT UNDER EITHER GOAL UNLESS EBITDA GOAL THRESHOLD IS ACHIEVED.

7. Payouts above Threshold

- You will earn a bonus for actual Company Revenue and EBITDA above Threshold equal to:

  Company Revenue Goal: $3,355.42 per $1M

  EBTIDA Goal: $33,211.06 per $1M

8. Examples

- **Revenue of $86.5M and EBITDA of ($1.0)M:**

  No payout under either goal as EBITDA Goal Threshold not achieved.

- **Revenue of $99.5M and EBITDA of 2.5M:**

  Revenue exceeds Target by $2.0M

  Payout of Target Award plus 2.0 * $3,355.42
  = $32,715.38 + $6,710.85
  = $39,426.22

  EBITDA exceeds Target by $ 0.5M

  Payout of Target Award plus 0.5 * $33,211.06
  = $66,422.13 + $16,605.53
  = $83,027.66

  Total Payout:

  Revenue Payout + EBITDA Payout
  = $39,426.22 + $83,027.66
  = $122,453.88

- **Revenue of $93.6M and EBITDA of $1.5M:**

  Revenue exceeds Threshold and is equal to 96% of Target

  Payout of (96% - 90%) / (100% - 90%) * Target Award
  = 60% * $32,715.38
  = $19,629.23

  EBITDA exceeds Threshold and is equal to 75% of Target

  Payout of $1.5M / $2.0M * Target Award
  = 75% * $66,422.13
  = $49,816.59

  Total Payout:

  Revenue Payout + EBITDA Payout
  = $19,629.23 + $49,816.59
  = $69,445.82

All amounts shown are based on current base salary. However, actual bonus will be calculated and paid based on actual base salary in effect at December 31, 2014.

Accepted: I hereby accept my designation as a Participant in the Plan. I agree to keep the terms and conditions of my participation in the Plan confidential and not to divulge such terms and conditions.

Signature: /s/ Corby Whitaker Dated: 2/10/2014

Exhibit 10.16

ASPEN AEROGELS, INC.

NON-EMPLOYEE DIRECTOR COMPENSATION POLICY

The Board of Directors of Aspen Aerogels, Inc. (the " Company ") has approved the following Non-Employee Director Compensation Policy (this " Policy ") which establishes compensation to be paid to non-employee directors of the Company, effective as of the closing of the Company's initial public offering of common stock (the " Effective Time "), to provide an inducement to obtain and retain the services of qualified persons to serve as members of the Company's Board of Directors.

Applicable Persons

This Policy shall apply to each director of the Company who is not an employee of, or consultant to, the Company or any Affiliate (each, an " Outside Director "). " Affiliate " shall mean a corporation which is a direct or indirect parent or subsidiary of the Company, as determined pursuant to Section 424 of the Internal Revenue Code of 1986, as amended.

Restricted Stock Grants

All restricted stock grant amounts set forth herein shall be subject to automatic adjustment in the event of any stock split or other recapitalization affecting the Company's common stock.

Annual Restricted Stock Grants

Commencing in calendar year 2015, each Outside Director shall be granted restricted shares of the Company's common stock (the " Annual Stock Grant ") equal in value to $85,000 under the Company's 2014 Employee, Director and Consultant Equity Incentive Plan (the " Stock Plan ") each year on or about the time of the annual meeting of the Board of Directors following the Company's annual meeting of stockholders; provided that if there has been no annual meeting of stockholders held by the first day of the third fiscal quarter, each Outside Director will still receive any annual grants of restricted stock provided for under this Policy on the first day of the third fiscal quarter of such year. The number of shares of common stock to be granted to each Outside Director as their Annual Stock Grant shall be calculated using fair market value of the Company's common stock as of the grant date, which shall be deemed to be the closing price on such date of the Company's common stock on a national securities exchange. For any new Outside Director joining the Board of Directors after the grant of the Annual Stock Grant in 2015, such new Outside Director shall receive a grant on the first day of his or her service on the Board of Directors equal to the pro rata share of that year's Annual Stock Grant calculated by multiplying the number of days of such year that the such new director will serve by the quotient of $85,000 divided by 365.

Initial Restricted Stock Grant at the Time of the Initial Public Offering

Each Outside Director as of the closing of the Company's initial public offering shall be granted restricted shares of the Company's common stock at the time of the pricing of the Company's initial public offering, or as soon thereafter as practicable, equal in value to $85,000 under the Stock Plan (the " IPO Stock Grant "). The number of shares of common stock to be granted to each Outside Director as their IPO Stock Grant shall be calculated using the price to the public of the Company's common stock at its initial public offering. For any new Outside Director joining the Board of Directors subsequent to the closing of the Company's initial public offering but prior to the grant of the Annual Stock Grant in 2015, such new Outside Director shall receive a grant on the first day of his or her service on the Board of Directors equal to the pro rata share of the IPO Stock Grant calculated by multiplying the number of days remaining prior to the one-year anniversary of the Company's initial public offering by the quotient of $85,000 divided by 365.

Terms for All Restricted Stock Grants

Unless otherwise specified by the Board of Directors or the Compensation Committee at the time of grant, all restricted stock granted under this Policy shall (i) vest on the earlier of (a) one year from the date of the grant with respect to an Annual Stock Grant or an IPO Stock Grant or (b) the day prior to the annual meeting for such fiscal year, each subject to the Outside Director's continued service on the Board of Directors and (ii) contain such other terms and conditions as the Board of Directors or the Compensation Committee shall determine prior to the grant of the restricted stock.

Such restricted stock shall become fully vested immediately prior to a Change of Control. "Change of Control" means the occurrence of any of the following events: (i)Any "Person" (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended (the " Exchange Act ")) becomes the "Beneficial Owner" (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of securities of the Company representing 50% or more of the total voting power represented by the Company's then outstanding voting securities (excluding for this purpose any such voting securities held by the Company or its affiliates or by any employee benefit plan of the Company) pursuant to a transaction or a series of related transactions; or (ii)(a) a merger or consolidation of the Company whether or not approved by the Board of Directors, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or the parent of such corporation) more than 50% of the total voting power represented by the voting securities of the Company or such surviving entity or parent of such corporation, as the case may be, outstanding immediately after such merger or consolidation; or (b) the sale or disposition by the Company of all or substantially all of the Company's assets in a transaction requiring stockholder approval.

Cash Fees

Annual Cash Payments

The following annual cash fees shall be paid to the Outside Directors serving on the Board of Directors and the Audit Committee, Compensation Committee and Nominating and Governance Committee, as applicable.

Board of Directors or Committee of Board of Directors	Annual Retainer Amount for Chair *(in lieu of the annual retainer amount for a member)*	Annual Retainer Amount for Member
Board of Directors	$ 65,000	$ 35,000
Audit Committee	$ 15,000	$ 7,500
Compensation Committee	$ 10,000	$ 5,000
Nominating and Governance Committee	$ 8,000	$ 4,000

If the Company holds more than 12 board meetings in a calendar year, each Outside Director will receive a fee of $1,500 for each additional board meeting attended in person and a fee of $1,000 for each additional board meeting attended by telephone or by other means of communication. If the Company holds more than 12 meetings of the Audit Committee in a calendar year, each member of such committee will receive a fee of $1,500 for each additional committee meeting attended in person and a fee of $1,000 for each additional committee meeting attended by telephone or by other means of communication. If the Company holds more than 8 meetings of either of the Compensation Committee or the Nominating and Governance Committee in a calendar year, each member of such committee will receive a fee of $1,500 for each additional committee meeting attended in person and a fee of $1,000 for each additional committee meeting attended by telephone or by other means of communication.

Payment Terms for All Cash Fees

Cash payments payable to Outside Directors shall be paid quarterly in arrears as of the last day of each fiscal quarter commencing as of the Effective Time.

Following an Outside Director's first election or appointment to the Board of Directors, such Outside Director shall receive his or her cash compensation pro rated beginning on the date he or she was initially appointed or elected. If an Outside Director dies, resigns or is removed during any quarter, he or she shall be entitled to a cash payment on a pro rated basis through his or her last day of service.

Expenses

Upon presentation of documentation of such expenses reasonably satisfactory to the Company, each Outside Director shall be reimbursed for his or her reasonable out-of-pocket business expenses incurred in connection with attending meetings of the Board of Directors and Committees thereof or in connection with other business related to the Board of Directors.

Amendments

The Nominating and Governance Committee or the Board of Directors shall review this Policy from time to time to assess whether any amendments in the type and amount of compensation provided herein should be adjusted in order to fulfill the objectives of this Policy.

Exhibit 10.18

INDEMNIFICATION AGREEMENT

THIS AGREEMENT (this **"Agreement"**) is entered into as of , 2014 by and between Aspen Aerogels, Inc., a Delaware corporation (together with its subsidiaries and affiliates, the **"Company"**), and the person identified on the signature page hereto as the "Indemnitee" (the **"Indemnitee"**).

Recitals :

A. The Delaware courts have recognized that indemnification by a corporation serves the dual policies of (1) allowing corporate officials to resist unjustified lawsuits, secure in the knowledge that, if vindicated, the corporation will bear the expense of litigation and (2) encouraging capable women and men to serve as corporate directors and officers, secure in the knowledge that the corporation will absorb the costs of defending their honesty and integrity.

B. The number of lawsuits challenging the judgment and actions of directors of Delaware corporations, the costs of defending those lawsuits, and the threat to directors' personal assets have all materially increased over the past several years, chilling the willingness of capable women and men to undertake the responsibilities imposed on corporate directors.

C. Under Delaware law, a director's right to be reimbursed for the costs of defense of criminal actions, whether such claims are asserted under state or federal law, does not depend upon the merits of the claims asserted against the director and is separate and distinct from any right to indemnification the director may be able to establish; and indemnification of the director against criminal fines and penalties is permitted if the director satisfies the applicable standard of conduct.

D. Indemnitee is a [director/officer] of the Company and Indemnitee does not regard the protection available under the Company's Certificate of Incorporation, By-laws and insurance as adequate in the present circumstances, and may not be willing to serve or continue to serve as a [director/officer] without adequate protection; and the Company desires Indemnitee to serve in such capacity. Indemnitee's willingness to serve in such capacity is predicated, in substantial part, upon the Company's willingness to indemnify him/her in accordance with the principles reflected above, to the fullest extent permitted by the laws of the state of Delaware, and upon the other undertakings set forth in this Agreement.

E. Therefore, in recognition of the need to provide Indemnitee with substantial protection against personal liability, in order to procure Indemnitee's continued service as a [director/officer] of the Company and to enhance Indemnitee's ability to serve the Company in an effective manner, and in order to provide such protection pursuant to express contract rights (intended to be enforceable irrespective of, among other things, any amendment to the Company's Certificate of Incorporation or Bylaws, any change in the composition of the Company's Board of Directors (the " **Board** ") or any change-in-control or business combination transaction relating to the Company), the Company wishes to provide in this Agreement for the indemnification of and the advancement of Expenses (as defined below) to Indemnitee as set forth in this Agreement and for the continued coverage of Indemnitee under the Company's directors' and officers' liability insurance policies.

Agreement :

NOW, THEREFORE, in consideration of the premises and the covenants contained herein, the Company and Indemnitee do hereby covenant and agree as follows:

1. Agreement to Indemnify . To the extent permissible under applicable law, the Company agrees to indemnify Indemnitee as follows:

(a) Subject to the exceptions contained in Section 2(a) , if Indemnitee was or is a party or is threatened to be made a party to any Proceeding (other than an action by or in the right of the Company) by reason of Indemnitee's Corporate Status, Indemnitee shall be indemnified by the Company against all Expenses and Liabilities incurred or paid by Indemnitee in connection with such Proceeding (referred to herein as **"Indemnifiable Expenses"** and **"Indemnifiable Liabilities,"** respectively, and collectively as **"Indemnifiable Amounts"**).

(b) Subject to the exceptions contained in Section 2(b) , if Indemnitee was or is a party or is threatened to be made a party to any Proceeding by or in the right of the Company to procure a judgment in its favor by reason of Indemnitee's Corporate Status, Indemnitee shall be indemnified by the Company against all Indemnifiable Expenses.

2. Exceptions to Indemnification . Indemnitee shall be entitled to indemnification under Sections 1(a) and 1(b) in all circumstances other than the following:

(a) If indemnification is requested under Section 1(a) and it has been adjudicated finally by a court of competent jurisdiction that

(i) in connection with the subject of the Proceeding out of which the claim for indemnification has arisen, Indemnitee failed to act in good faith and in a manner Indemnitee reasonably believed to be in or not opposed to the best interests of the Company;

(ii) with respect to any criminal action or proceeding, Indemnitee had reasonable cause to believe that Indemnitee's conduct was unlawful, Indemnitee shall not be entitled to payment of Indemnifiable Amounts hereunder; or

(iii) on account of any claim or proceeding against Indemnitee for an accounting of profits made from the purchase or sale by Indemnitee of securities of the Company pursuant to the provisions of Section 16(b) of the Exchange Act (as defined below), or similar provisions of any federal, state or local law, provided, however, if and when Indemnitee ultimately establishes in any such proceeding that no recovery of profits from Indemnitee is permitted under Section 16 (b) of the Exchange Act or such similar provision of any similar federal, state or local law, then, notwithstanding anything to the contrary provided in this Section 2 (a)(iii), indemnification pursuant to this Agreement shall then be permitted;

(b) If indemnification is requested under Section 1(b) , and

(i) it has been adjudicated finally by a court of competent jurisdiction that, in connection with the subject of the Proceeding out of which the claim for indemnification

has arisen, Indemnitee failed to act in good faith and in a manner Indemnitee reasonably believed to be in or not opposed to the best interests of the Company, Indemnitee shall not be entitled to payment of Indemnifiable Expenses hereunder; or

(ii) it has been adjudicated finally by a court of competent jurisdiction that Indemnitee is liable to the Company with respect to any claim, issue or matter involved in the Proceeding out of which the claim for indemnification has arisen (including, without limitation, a claim that Indemnitee received an improper personal benefit), no Indemnifiable Expenses shall be paid with respect to such claim, issue or matter unless the court in which such Proceeding was brought shall determine upon application that, despite the adjudication of liability, but in view of all the circumstances of the case, Indemnitee is fairly and reasonably entitled to indemnity for such Indemnifiable Expenses which such court shall deem proper.

(c) In making any standard of conduct determination with respect to an Indemnitee and his request for indemnification hereunder, the person or persons making such determination shall, to the fullest extent permitted by law, presume that (i) Indemnitee is entitled to indemnification under this Agreement if Indemnitee has submitted a request for indemnification in accordance with this Agreement, and (ii) Indemnitee has satisfied the applicable standard of conduct. The Company shall, to the fullest extent not prohibited by law, in any legal proceeding, have the burden of proof to overcome such presumptions in connection with the making by any person, persons or entity of any determination (including any standard of conduct determination) contrary to such presumptions. The Company may overcome such presumptions only by its adducing clear and convincing evidence to the contrary. Neither the failure of the Company (including by its directors or independent legal counsel) to have made a determination prior to the commencement of any action pursuant to this Agreement that indemnification is proper in the circumstances because Indemnitee has met the applicable standard of conduct, nor an actual determination by the Company (including its directors or independent legal counsel) that Indemnitee has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that Indemnitee has not met the applicable standard of conduct. In addition, for purposes of any determination of good faith, Indemnitee shall be deemed to have acted in good faith if Indemnitee's action is based on the records or books of account of the Company or any Entity, including financial statements, or on information supplied to Indemnitee by the officers of the Company or any Entity in the course of their duties, or on the advice of legal counsel for the Company or any Entity or on information or records given or reports made to the Company or any Entity by an independent certified public accountant or by an appraiser or other expert selected with reasonable care by the Company or any Entity. The provisions of this Section 2(c) shall not be deemed to be exclusive or to limit in any way the other circumstances which the Indemnitee may be deemed to have met the applicable standard of conduct set forth in this Agreement or required by law. In addition, the knowledge and/or actions, or failure to act, of any director, officer, agent or employee of the Company or any Entity shall not be imputed to Indemnitee for purposes of determining the right to indemnification under this Agreement.

(d) From and after the occurrence of a Change of Control, upon the request of Indemnitee, any standard of conduct determination with respect to such Indemnitee shall be made by Independent Legal Counsel. Within ten (10) days after the Indemnitee provides written notice of his selection of Independent Legal Counsel, the Company shall deliver to the

Indemnitee any written objection to the selection of Independent Counsel; provided, however, that such objection may be asserted only on the ground that the Independent Legal Counsel so selected does not meet the requirements of "Independent Counsel" as defined in Section 14 of this Agreement, and the objection shall set forth with particularity the factual basis of such assertion. Absent a proper and timely objection, the person so selected shall act as Independent Legal Counsel. If such written objection is so made and substantiated, the Independent Legal Counsel so selected may not serve as Independent Legal Counsel unless and until such objection is withdrawn or a court has determined that such objection is without merit.

A "Change of Control" shall be deemed to occur upon the earliest to occur after the date of this Agreement of any of the following events:

(i) Any Person (as defined below) is or becomes the Beneficial Owner (as defined below), directly or indirectly, of securities of the Company representing more than thirty percent (30%) of the combined voting power of the Company's then outstanding securities without the prior approval of at least two-thirds of the members of the Board in office immediately prior to such person attaining such percentage;

(ii) During any period of two (2) consecutive years (not including any period prior to the execution of this Agreement), individuals who at the beginning of such period constitute the Board, and any new director (other than a director designated by a person who has entered into an agreement with the Company to effect a transaction described in Sections 2(d)(i) , 2(d)(iii) or 2(d)(iv)) whose election by the Board or nomination for election by the Company's stockholders was approved by a vote of at least two-thirds of the directors then still in office who either were directors at the beginning of the period or whose election or nomination for election was previously so approved), cease for any reason to constitute a least a majority of the members of the Board;

(iii) The effective date of a merger or consolidation of the Company with any other entity, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior to such merger or consolidation continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) more than 51% of the combined voting power of the voting securities of the surviving entity outstanding immediately after such merger or consolidation and with the power to elect at least a majority of the Board or other governing body of such surviving entity;

(iv) The approval by the stockholders of the Company of a complete liquidation of the Company or an agreement for the sale or disposition by the Company of all or substantially all of the Company's assets; and

(v) There occurs any other event of a nature that would be required to be reported in response to Item 6(e) of Schedule 14A of Regulation 14A (or a response to any similar item on any similar schedule or form) promulgated under the Exchange Act (as defined below), whether or not the Company is then subject to such reporting requirement.

For purposes of this Section 2(d) , the following terms shall have the following meanings:

(A) “Exchange Act” shall mean the Securities Exchange Act of 1934, as amended.

(B) “Person” shall have the meaning as set forth in Sections 13(d) and 14(d) of the Exchange Act; provided, however, that Person shall exclude (i) the Company, (ii) any trustee or other fiduciary holding securities under an employee benefit plan of the Company, and (iii) any corporation owned, directly or indirectly, by the stockholders of the Company in substantially the same proportions as their ownership of stock of the Company.

(C) “Beneficial Owner” shall have the meaning given to such term in Rule 13d-3 under the Exchange Act; provided, however, that Beneficial Owner shall exclude any Person otherwise becoming a Beneficial Owner by reason of the stockholders of the Company approving a merger of the Company with another entity.

(e) Any standard of conduct determination that is adverse to Indemnitee may be challenged by the Indemnitee in the Court of Chancery of the State of Delaware. No determination by the Company (including by its directors or any independent legal counsel) that Indemnitee has not satisfied any applicable standard of conduct shall be a defense to any demand by Indemnitee for indemnification or reimbursement or advance payment of Expenses by the Company hereunder or create a presumption that Indemnitee has not met any applicable standard of conduct.

3. Procedure for Payment of Indemnifiable Amounts . Indemnitee shall submit to the Company a written request specifying the Indemnifiable Amounts for which Indemnitee seeks payment under Section 1 and the basis for the claim. The Company shall pay such Indemnifiable Amounts to Indemnitee within twenty (20) calendar days of receipt of the request. At the request of the Company, Indemnitee shall furnish such documentation and information as are reasonably available to Indemnitee and necessary to determine whether Indemnitee is entitled to indemnification. Such determination shall be made in each instance (a) by a majority vote of the directors of the Company consisting of persons who are not at that time parties to the Proceeding (“ **Disinterested Directors** ”), whether or not a quorum, (b) by a committee of Disinterested Directors designated by a majority vote of Disinterested Directors, whether or not a quorum, (c) if there are no Disinterested Directors, or if the Disinterested directors so direct, by Independent Legal Counsel in a written opinion to the Board, with a copy to the Indemnitee, or (d) by the stockholders of the Company.

4. Cooperation . The Indemnitee shall cooperate with the person, persons or entity making such determination with respect to the Indemnitee’s entitlement to indemnification, including providing to such person, persons or entity upon reasonable advance request any documentation or information which is not privileged or otherwise protected from disclosure and which is reasonably available to the Indemnitee and reasonably necessary to such determination. Any Expenses actually and reasonably incurred by the Indemnitee in so cooperating shall be borne by the Company (irrespective of the determination as to the Indemnitee’s entitlement to indemnification) and the Company hereby indemnifies the Indemnitee therefrom.

5. Indemnification for Expenses of a Party Who is Wholly or Partly Successful . To the extent permissible under applicable law and consistent with Section 1 , to the extent that Indemnitee is, by reason of Indemnitee's Corporate Status, a party to and is successful, on the merits or otherwise, in any Proceeding, Indemnitee shall be indemnified against all Expenses reasonably incurred by Indemnitee or on Indemnitee's behalf in connection therewith. If Indemnitee is not wholly successful in such Proceeding but is successful, on the merits or otherwise, as to one or more but less than all claims, issues or matters in such Proceeding, the Company shall indemnify Indemnitee against all Expenses reasonably incurred by Indemnitee or on Indemnitee's behalf in connection with each successfully resolved claim, issue or matter. For purposes of this Agreement, the termination or settlement of any claim, issue or matter in such a Proceeding by dismissal, with or without prejudice, shall be deemed to be a successful result as to such claim, issue or matter.

6. Indemnification For Expenses of a Witness . Notwithstanding any other provision of this Agreement, to the fullest extent permitted by applicable law, and to the extent that Indemnitee is, by reason of the Indemnitee's Corporate Status, a witness in any Proceeding to which Indemnitee is not a party, the Indemnitee shall be entitled to indemnification and advancement against all Expenses actually and reasonably incurred by him or on his behalf in connection therewith.

7. Effect of Certain Resolutions . Neither the settlement or termination of any Proceeding nor the failure of the Company to award indemnification or to determine that indemnification is payable shall create an adverse presumption that Indemnitee is not entitled to indemnification hereunder. In addition, the termination of any proceeding by judgment, order, settlement, conviction, or upon a plea of *nolo contendere* or its equivalent shall not create a presumption that Indemnitee did not act in good faith and in a manner which Indemnitee reasonably believed to be in or not opposed to the best interests of the Company or, with respect to any criminal action or proceeding, had reasonable cause to believe that Indemnitee's action was unlawful.

8. Advancement of Expenses; Conditions . The Company shall advance to Indemnitee, to the fullest extent permitted by the Delaware General Corporation Law as such law may from time to time be amended, Expenses actually and reasonably incurred by Indemnitee in connection with any Proceeding, including a Proceeding by or in the right of the Company. As a condition precedent to the Company's advancement of Expenses to Indemnitee, Indemnitee shall furnish the Company a written undertaking to repay the amount of such Expenses advanced to Indemnitee if it is finally determined, after all appeals by a court of competent jurisdiction are exhausted, that Indemnitee is not entitled under this Agreement to indemnification with respect to such Expenses. Such undertaking shall be an unlimited general obligation of Indemnitee, shall be accepted by the Company without regard to the financial ability of Indemnitee to make repayment, and in no event shall be required to be secured. The Indemnitee's right to advancement is not subject to the satisfaction of any standard of conduct. Indemnitee shall submit to the Company a written request specifying the Expenses for which Indemnitee seeks an advancement under this Section 8 , together with documentation evidencing that Indemnitee has incurred such Expenses. Payment of Expenses under this Section 8 shall be made no later than twenty (20) calendar days after the Company's receipt of such request and the undertaking required by this Section 8 . Advances shall include any and all reasonable Expenses incurred

pursuing an action to enforce this right of advancement, including Expenses incurred preparing and forwarding statements to the Company to support the advances claimed. The Indemnitee shall qualify for advances upon the execution and delivery to the Company of this Agreement, which shall constitute an undertaking providing that the Indemnitee undertakes to repay the advance to the extent that it is ultimately determined that Indemnitee is not entitled to be indemnified by the Company.

9. Remedies of Indemnitee .

(a) Right to Petition Court . If Indemnitee makes a request for payment of Indemnifiable Amounts under Section 1 or a request for an advancement of Indemnifiable Expenses under Section 8 and the Company fails to make such payment or advancement in a timely manner pursuant to the terms of this Agreement, Indemnitee may petition the appropriate judicial authority to enforce the Company's obligations under this Agreement.

(b) Burden of Proof . In any judicial proceeding brought under Section 9(a) , the Company shall have the burden of proving that Indemnitee is not entitled to payment of Indemnifiable Amounts hereunder.

(c) Expenses . To the fullest extent permitted by law, the Company agrees to indemnify and, if requested, advance to Indemnitee Expenses incurred by Indemnitee in connection with investigating, preparing for, litigating, defending or settling any action brought by Indemnitee under Section 9(a) , or in connection with any claim or counterclaim brought by the Company in connection therewith.

(d) Validity of Agreement . The Company shall be precluded from asserting in any Proceeding (including, without limitation, an action under Section 9(a)) that the provisions of this Agreement are not valid, binding and enforceable or that there is insufficient consideration for this Agreement and shall stipulate in court that the Company is bound by all the provisions of this Agreement.

(e) Failure to Act Not a Defense . The failure of the Company (including its Board of Directors or any committee thereof, independent legal counsel, or stockholders) to make a determination concerning the permissibility of the payment of Indemnifiable Amounts or the advancement of Indemnifiable Expenses under this Agreement shall not be a defense in any action brought under Section 9(a) , and shall not create a presumption that such payment or advancement is not permissible.

10. Representations and Warranties of the Company . The Company hereby represents and warrants to Indemnitee as follows:

(a) Authority . The Company has all necessary power and authority to enter into, and be bound by the terms of, this Agreement, and the execution, delivery and performance of the undertakings contemplated by this Agreement have been duly authorized by the Company.

(b) Enforceability . This Agreement, when executed and delivered by the Company in accordance with the provisions hereof, shall be a legal, valid and binding obligation of the Company, enforceable against the Company in accordance with its terms, except as such

enforceability (i) may be limited by applicable bankruptcy, insolvency, moratorium, reorganization or similar laws affecting the enforcement of creditors' rights generally and (ii) are subject to general equitable principles.

11. Liability Insurance and Funding . For the duration of Indemnitee's service as a director and/or officer of the Company, and thereafter for so long as Indemnitee shall be subject to any pending or possible Indemnifiable Expense or Liability, the Company shall use commercially reasonable efforts (taking into account the scope and amount of coverage available relative to the cost thereof) to cause to be maintained in effect policies of directors' and officers' liability insurance providing coverage for directors and/or officers of the Company that is at least substantially comparable in scope and amount to that provided by the Company's current policies of directors' and officers' liability insurance. Prior to the occurrence of an initial public offering or any other material transaction which the Board of Directors believes may change the nature, scope or magnitude of directors' potential liability, the Company agrees to undertake a review of the adequacy of its directors' and officers' liability insurance coverage, and to make such adjustments thereto as may be reasonable or necessary in light of such impending transaction(s). If requested, the Company shall provide Indemnitee with a copy of all directors' and officers' liability insurance applications, binders, policies, declarations, endorsements and other related materials, and shall provide Indemnitee with a reasonable opportunity to review and comment on the same. Without limiting the generality or effect of the two immediately preceding sentences, the Company shall not discontinue or significantly reduce the scope or amount of coverage from one policy period to the next (i) without the prior approval thereof by a majority vote of the Incumbent Directors, even if less than a quorum, or (ii) if at the time that any such discontinuation or significant reduction in the scope or amount of coverage is proposed there are no Incumbent Directors, without the prior written consent of Indemnitee (which consent shall not be unreasonably withheld or delayed). In all policies of directors' and officers' liability insurance obtained by the Company, Indemnitee shall be named as an insured in such a manner as to provide Indemnitee the same rights and benefits, subject to the same limitations, as are accorded to the Company's directors and officers most favorably insured by such policy. The Company may, but shall not be required to, create a trust fund, grant a security interest or use other means, including without limitation a letter of credit, to ensure the payment of such amounts as may be necessary to satisfy its obligations to indemnify and advance expenses pursuant to this Agreement.

In the event of and immediately upon a Change of Control, the Company (or any successor to the interests of the Company by way of merger, sale of assets, or otherwise) shall be obligated to continue, procure and otherwise maintain in effect for a period of six (6) years from the date on which such Change of Control is effective a policy or policies of insurance (which may be a "tail" policy) (the " **Change of Control Coverage** ") providing Indemnitee with coverage for losses from alleged wrongful acts occurring on or before the effective date of the Change of Control. If such insurance is in place immediately prior to the Change of Control, then the Change of Control Coverage shall contain limits, retentions or deductibles, terms and exclusions that are no less favorable to Indemnitee than those set forth above. Each policy evidencing the Change of Control Coverage shall be non-cancellable by the insurer except for non-payment of premium. No such policy shall contain any provision that limits or impacts adversely any right or privilege of Indemnitee given by this Agreement.

12. Contract Rights Not Exclusive; Change in Law . The rights to payment of Indemnifiable Amounts and advancement of Indemnifiable Expenses provided by this Agreement shall be in addition to, but not exclusive of, any other rights which Indemnitee may have at any time under applicable law, the Company's bylaws or articles of incorporation, or any other agreement, vote of stockholders or directors, or otherwise (collectively, an " **Other Indemnity Provision** "), both as to action in Indemnitee's official capacity and as to action in any other capacity as a result of Indemnitee's serving as a director of the Company. To the extent that a change in applicable law (whether by statute or judicial decision) or Other Indemnity Provision shall permit broader indemnification than is provided under the terms of the Company's bylaws or Certificate of Incorporation and this Agreement as of the date hereof, Indemnitee shall be entitled to such broader indemnification and this Agreement shall be deemed to be amended to such extent. The Company will not adopt any amendment to its bylaws or articles of incorporation or any other agreement the effect of which would be to deny, diminish or encumber Indemnitee's right to indemnification under this Agreement or any Other Indemnity Provision. No amendment, alternation or repeat of this Agreement or of any provision hereof shall limit or restrict any right of Indemnitee under this Agreement in respect of any action taken or omitted by such Indemnitee in his or her Corporate Status prior to such amendment, alteration or repeal. No right or remedy herein conferred is intended to be exclusive of any other right or remedy, and every other right and remedy shall be cumulative and in addition to every other right and remedy given hereunder or now or hereafter existing at law or in equity or otherwise. The assertion or employment of any right or remedy hereunder, or otherwise, shall not prevent the concurrent assertion or employment of any other right or remedy.

13. Access to Board Papers .

(a) The Company agrees to maintain a complete set of Board Papers in a systematic and organized manner; provided , however , that if the relevant Board Papers were created prior to the date of this Agreement, the Company shall be deemed to have satisfied its obligations under this Section 13 if it uses all reasonable efforts to collate and keep those Board Papers in the manner required hereby. Subject to the foregoing proviso, if Indemnitee asks to inspect, or for a copy of, any Board Paper and the request is made in connection with any Proceedings or the threat of any Proceedings, the Company must, within fourteen (14) days after receiving that request: (i) allow Indemnitee (or a person nominated in writing by Indemnitee) to inspect the Board Paper at the Company's registered office (or any other place agreed by the Company and Indemnitee), and (ii) provide Indemnitee a copy of the Board Paper without charge.

(b) Indemnitee hereby acknowledges that: (i) the Company remains the owner of all Board Papers and the Company may request Indemnitee to provide the Company with reasons why Indemnitee requires access to a document, (ii) as a condition to Indemnitee's right to receive any Board Papers, Indemnitee must, on written request by the Company, provide the Company with written reasons why Indemnitee requires access to a document, and (iii) Indemnitee must return to the Company or destroy all copies of any Board Papers obtained from the Company under this Section 13 within ten (10) days after the relevant Proceedings are finally resolved or the threat of such Proceedings has ceased to materially exist.

(c) If the Company has any right (including a right it has jointly or in common with Indemnitee or with Indemnitee and others) to privilege, such as attorney-client privilege, with respect to any document which Indemnitee inspects, copies or uses under this Agreement or the applicable law: (i) that document is to be treated by Indemnitee as confidential; (ii) by permitting the inspection, copying or use to Indemnitee or Indemnitee's permitted nominee, the Company does not waive any privilege; and (iii) in so inspecting, copying or using the document by himself or herself or through Indemnitee's permitted nominee, Indemnitee must use his or her best efforts to ensure that so far as is practical the right to privilege is not lost or waived, whether by Indemnitee or the Indemnitee's nominee or otherwise and as a condition to providing any such document to Indemnitee the Company may require Indemnitee to enter into a reasonable and customary joint defense or other similar agreement for the protection of any such privilege. Nothing in this Agreement shall be deemed to prevent or preclude the Company from relying on privilege in proceedings between Indemnitee and the Company (including in respect of a document which the Company has disclosed to Indemnitee outside those proceedings).

(d) Nothing in this Section 13 shall be deemed to limit any right of access Indemnitee otherwise has to Board Papers.

(e) Indemnitee hereby agrees not to disclose any confidential information contained in a Board Paper to a third party unless: (i) the Company has given its prior written consent to such disclosure; (ii) Indemnitee is required to do so by law; (iii) the disclosure is made for the purpose of obtaining professional advice or in connection with the relevant Proceedings or the threat of such Proceedings in relation to which Indemnitee was given access to the Board Paper; or (iv) the disclosure is made on behalf of the Company and for Company purposes in furtherance of Indemnitee's duties as a director, officer, employee or agent of the Company at the time such disclosure is made; provided , however , if Indemnitee is entitled to disclose confidential information under this Section 13(e) and the Board Papers include any information to which attorney-client privilege attaches for the benefit of the Company, or both the Company and Indemnitee, Indemnitee must use his or her best efforts to avoid doing anything that will cause that privilege to be waived, extinguished or lost by the Company in relation to third parties.

14. Vesting and Duration of Agreement . The obligations under this Agreement and the indemnification rights in favor of the Indemnitee shall vest upon the effective date of this Agreement.

15. Services of Indemnitee . In reliance upon the obligations of the Company set forth in this Agreement, Indemnitee has agreed to serve as a [director/officer] of the Company. However, this Agreement shall not impose any obligation on Indemnitee or the Company to continue Indemnitee's service to the Company beyond any period otherwise required by law or by any other agreements or commitments of the parties.

16. Definitions .

(a) "Board Papers" means all materials provided to Indemnitee specifically in connection with any meeting of the Board or any committee of the Board, whether in documentary form or some other form, including, but not limited to, board papers, submissions,

minutes, memoranda, legal opinions, financial statements and subcommittee papers during the the period commencing on the date that Indemnitee first became a member of the Board and ending on the date Indemnitee ceases to serve as a member of the Board.

(b) "Corporate Status" describes the status of a person who is serving or has served (i) as a director and/or officer of the Company, (ii) in any capacity with respect to any employee benefit plan of the Company, or (iii) as a director, partner, trustee, officer, employee, or agent of any other Entity at the request of the Company.

(c) "Entity" shall mean any corporation, partnership, joint venture, trust, foundation, association, organization or other legal entity and any group or division of the Company or any of its subsidiaries.

(d) "Expenses" shall mean all reasonable fees, costs and expenses incurred in connection with investigating, prosecuting or defending (or preparing to investigate, prosecute or defend) any Proceeding (as defined below), or being or preparing to be a witness in a Proceeding, including, without limitation, attorneys' fees, disbursements and retainers (including, without limitation, any such fees, disbursements and retainers incurred by Indemnitee pursuant to Section 7), fees and disbursements of expert witnesses, private investigators and professional advisors (including, without limitation, accountants and investment bankers), court costs, transcript costs, fees of experts, travel expenses, duplicating, printing and binding costs, telephone and fax transmission charges, postage, delivery services, secretarial services, and other disbursements and expenses.

(e) "Incumbent Directors" shall mean those members of the Board serving as such immediately prior to the consummation of any transaction which by its terms or otherwise results in a change in the composition of the Board.

(f) " **Independent Counsel** " shall mean a law firm, or a member of a law firm, selected by the Indemnitee and approved by the Company (which approval should not be unreasonably withheld or delayed) who, in the past five years has not been retained to represent the Company or Indemnitee in any matter material to either such party (other than with respect to matters concerning the Indemnitee under this Agreement, or of other indemnitees under similar indemnification agreements). Notwithstanding the foregoing, the term "Independent Counsel" shall not include any person who, under the applicable standards of professional conduct then prevailing, would have a conflict of interest in representing either the Company or Indemnitee in an action to determine Indemnitee's rights under this Agreement. The Company agrees to pay the reasonable fees and expenses of the Independent Counsel referred to above and to fully indemnify such counsel against any and all Expenses, claims, liabilities and damages arising out of or relating to this Agreement or its engagement pursuant hereto.

(g) "Liabilities" shall mean judgments, damages, liabilities, losses, penalties, excise taxes, fines and amounts paid in settlement.

(h) "Proceeding" shall mean any threatened, pending or completed claim, action, suit, arbitration, alternate dispute resolution process, investigation, inquiry, administrative or regulatory hearing, or any other threatened or actual proceeding, whether civil, criminal,

administrative, regulatory or investigative, whether formal or informal and any appeals therefrom (including, without limitation, any proceeding initiated by Indemnitee pursuant to Section 9 to enforce Indemnitee's rights hereunder). Proceeding shall also include any corporate internal investigation from and after the time in which the Indemnitee has received or is entitled to receive the warning mandated in *Upjohn Company v. United States* , 449 U.S. 383 (1981).

17. Successors . This Agreement shall be (a) binding upon all successors and assigns of the Company (including any transferee of all or a substantial portion of the business, stock and/or assets of the Company and any direct or indirect successor by merger or consolidation or otherwise by operation of law) and (b) binding on and shall inure to the benefit of the heirs, personal representatives, executors and administrators of Indemnitee. This Agreement shall continue for the benefit of Indemnitee and such heirs, personal representatives, executors and administrators after Indemnitee has ceased to have Corporate Status.

18. Subrogation . Upon any payment of Indemnifiable Amounts under this Agreement, the Company shall be subrogated to the extent of such payment to all of the rights of contribution or recovery of Indemnitee against other persons, and Indemnitee shall take, at the request of the Company, all reasonable action necessary to secure such rights, including the execution of such documents as are necessary to enable the Company to bring suit to enforce such rights.

19. Severability . Whenever possible, each provision of this Agreement shall be interpreted in such a manner as to be effective and valid under applicable law, but if any provision of this Agreement, or any clause thereof, shall be determined by a court of competent jurisdiction to be illegal, invalid or unenforceable, in whole or in part, such provision or clause shall be limited or modified in its application to the minimum extent necessary to make such provision or clause valid, legal and enforceable, and the remaining provisions and clauses of this Agreement shall remain fully enforceable and binding on the parties.

20. Modifications and Waiver . Except as provided in Section 12 with respect to changes in applicable law which broaden the right of Indemnitee to be indemnified by the Company, no supplement, modification or amendment of this Agreement shall be binding unless executed in writing by each of the parties hereto. No waiver of any of the provisions of this Agreement shall be deemed or shall constitute a waiver of any other provisions of this Agreement (whether or not similar), nor shall such waiver constitute a continuing waiver.

21. General Notices . All notices, requests, demands and other communications hereunder shall be in writing and shall be deemed to have been duly given (a) when delivered by hand, (b) when transmitted by facsimile and receipt is acknowledged, or (c) if mailed by certified or registered mail with postage prepaid, on the third business day after the date on which it is so mailed:

(i) If to Indemnitee, to the address on the signature page hereto.

(ii) If to the Company, to:

Aspen Aerogels, Inc.
Attention: Board of Directors
30 Forbes Road, Bldg B
Northborough, MA 01532
Attn: President
Tel: (508) 691-1111
Fax: (508) 691-1200

or to such other address as may have been furnished in the same manner by any party to the others.

22. Governing Law . This Agreement shall be governed by and construed and enforced under the laws of the State of Delaware without giving effect to the provisions thereof relating to conflicts of law. The Company and Indemnitee hereby irrevocably and unconditionally (i) agree that any action or proceeding arising out of or in connection with this Agreement shall be brought only in the Chancery Court of the State of Delaware (the " **Delaware Court** "), and not in any other state or federal court in the United States of America or any court in any other country; (ii) consent to submit to the exclusive jurisdiction of the Delaware Court for purposes of any action or proceeding arising out of or in connection with this Agreement; (iii) waive any objection to the laying of venue of any such action or proceeding in the Delaware Court; and (iv) waive, and agree not to plead or to make, any claim that any such action or proceeding brought in the Delaware Court has been brought in an improper or inconvenient forum.

23. Agreement Governs . This Agreement is to be deemed consistent wherever possible with relevant provisions of the Company's Bylaws and Certificate of Incorporation, however, in the event of a conflict between this Agreement and such provisions, the provisions of this Agreement shall control.

24. Defense of Claims . The Company shall be entitled to participate in the defense of any claim involving any Proceeding for which indemnification is sought (an " **Indemnifiable Claim** ") or to assume the defense thereof, with counsel reasonably satisfactory to the Indemnitee; provided that if Indemnitee believes, after consultation with counsel selected by Indemnitee, that (a) the use of counsel chosen by the Company to represent Indemnitee would present such counsel with an actual or potential conflict, (b) the named parties in any such Indemnifiable Claim (including any impleaded parties) include both the Company and Indemnitee and Indemnitee shall conclude that there may be one or more legal defenses available to him or her that are different from or in addition to those available to the Company, or (c) any such representation by such counsel would be precluded under the applicable standards of professional conduct then prevailing, then Indemnitee shall be entitled to retain separate counsel (but not more than one law firm plus, if applicable, local counsel in respect of any particular Indemnifiable Claim) at the Company's expense. The Company shall not be liable to Indemnitee under this Agreement for any amounts paid in settlement of any threatened or pending Indemnifiable Claim effected without the Company's prior written consent. The Company shall not, without the prior written consent of the Indemnitee, effect any settlement of any threatened

or pending Indemnifiable Claim to which the Indemnitee is, or could have been, a party unless such settlement solely involves the payment of money and includes a complete and unconditional release of the Indemnitee from all liability on any claims that are the subject matter of such Indemnifiable Claim. Neither the Company nor Indemnitee shall unreasonably withhold or delay its consent to any proposed settlement; provided that Indemnitee may withhold consent to any settlement that does not provide a complete and unconditional release of Indemnitee or which requires anything from Indemnitee beyond the mere payment of money.

25. Information Sharing . To the extent that the Company receives a request or requests from a governmental third party or other licensing or regulating organization (the " **Requesting Agency** "), whether formal or informal, to produce documentation or other information concerning an investigation, whether formal or informal, being conducted by the Requesting Agency, and such investigation is reasonably likely to include review of any actions or failures to act by the Indemnitee, the Company shall promptly give notice to Indemnitee of said request or requests and any subsequent request. In addition, the Company shall provide the Indemnitee with a copy of any and all information or documentation that the Company shall provide to the Requesting Agency.

26. Legal Fees and Expenses . It is the intent of the Company that Indemnitee not be required to incur legal fees and or other Expenses associated with the interpretation, enforcement or defense of Indemnitee's rights under this Agreement by litigation or otherwise because the cost and expense thereof would substantially detract from the benefits intended to be extended to Indemnitee hereunder. Accordingly, without limiting the generality or effect of any other provision hereof, if Indemnitee reasonably believes that the Company has failed to comply with any of its obligations under this Agreement after giving the Company written notice thereof and a reasonable opportunity to cure same or in the event that the Company or any other person takes or threatens to take any action to declare this Agreement void or unenforceable, or institutes any litigation or other action or proceeding that Indemnitee reasonably believes to be designed to deny, or to recover from, Indemnitee the benefits provided or intended to be provided to Indemnitee hereunder, the Company irrevocably authorizes the Indemnitee from time to time to retain counsel of Indemnitee's choice, at the expense of the Company as hereafter provided, to advise and represent Indemnitee in connection with any such interpretation, enforcement or defense, including without limitation the initiation or defense of any litigation or other legal action, whether by or against the Company or any director, officer, stockholder or other person affiliated with the Company, in any jurisdiction. Without respect to whether Indemnitee prevails, in whole or in part, in connection with any of the foregoing, the Company will pay and be solely financially responsible for any and all attorneys' and related fees and expenses reasonably incurred by Indemnitee in connection with any of the foregoing; it being agreed that any and all such fees and expenses among those items referred to herein as Expenses.

27. Counterparts . This Agreement may be executed in one or more counterparts, each of which shall for all purposes be deemed to be an original but all of which together shall constitute one and the same Agreement. Only one such counterpart signed by the party against whom enforceability is sought needs to be produced to evidence the existence of this Agreement.

28. Existing Indemnification Agreement . In the event that the Indemnitee is currently a party to an indemnification agreement with the Company in connection with the

Indemnitee's service as a [director/officer] of the Company (the " **Prior Agreement** "), upon the effectiveness of this Agreement, this Agreement shall amend and restate the Prior Agreement in its entirety and shall supercede and replace the Prior Agreement.

*** * * * ***

[remainder of this page intentionally left blank]

IN WITNESS WHEREOF, the parties hereto have executed this Indemnification Agreement as of the date first written above.

THE COMPANY :

Aspen Aerogels, Inc.

By: _____
Name:
Title:

INDEMNITEE :

_____
Name:
Address:

Fax: _____