

Form 5500 Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Annual Return/Report of Employee Benefit Plan This form is required to be filed for employee benefit plans under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA) and sections 6057(b) and 6058(a) of the Internal Revenue Code (the Code). ▶ Complete all entries in accordance with the instructions to the Form 5500.	OMB Nos. 1210-0110 1210-0089 2023 This Form is Open to Public Inspection
--	---	---

Part I	Annual Report Identification Information
For calendar plan year 2023 or fiscal plan year beginning 01/01/2023 and ending 12/31/2023	
A	This return/report is for: ☐ a multiemployer plan ☐ a multiple-employer plan (Filers checking this box must provide participating employer information in accordance with the form instructions.) ☒ a single-employer plan ☐ a DFE (specify) _____ ☐ the first return/report ☐ the final return/report ☐ an amended return/report ☐ a short plan year return/report (less than 12 months)
C	If the plan is a collectively-bargained plan, check here. ▶ ☐
D	Check box if filing under: ☒ Form 5558 ☐ automatic extension ☐ the DFVC program ☐ special extension (enter description)
E	If this is a retroactively adopted plan permitted by SECURE Act section 201, check here. ▶ ☐

Part II	Basic Plan Information—enter all requested information
1a	Name of plan ASPEN AEROGELS, INC. 401(K) PLAN
1b	Three-digit plan number (PN) ▶ 001
1c	Effective date of plan 05/01/2005
2a	Plan sponsor's name (employer, if for a single-employer plan) Mailing address (include room, apt., suite no. and street, or P.O. Box) City or town, state or province, country, and ZIP or foreign postal code (if foreign, see instructions) ASPEN AEROGELS, INC. 30 FORBES ROAD, BUILDING B NORTHBOROUGH, MA 01532
2b	Employer Identification Number (EIN) 04-3559972
2c	Plan Sponsor's telephone number 508-691-1187
2d	Business code (see instructions) 339900

Caution: A penalty for the late or incomplete filing of this return/report will be assessed unless reasonable cause is established.

Under penalties of perjury and other penalties set forth in the instructions, I declare that I have examined this return/report, including accompanying schedules, statements and attachments, as well as the electronic version of this return/report, and to the best of my knowledge and belief, it is true, correct, and complete.

SIGN HERE	Filed with authorized/valid electronic signature.	10/07/2024	DANIEL N FOWLER
	Signature of plan administrator	Date	Enter name of individual signing as plan administrator
SIGN HERE			
	Signature of employer/plan sponsor	Date	Enter name of individual signing as employer or plan sponsor
SIGN HERE			
	Signature of DFE	Date	Enter name of individual signing as DFE

3a Plan administrator's name and address ☒ Same as Plan Sponsor	3b Administrator's EIN 3c Administrator's telephone number
4 If the name and/or EIN of the plan sponsor or the plan name has changed since the last return/report filed for this plan, enter the plan sponsor's name, EIN, the plan name and the plan number from the last return/report: a Sponsor's name c Plan Name	4b EIN 4d PN
5 Total number of participants at the beginning of the plan year	5 587
6 Number of participants as of the end of the plan year unless otherwise stated (welfare plans complete only lines 6a(1) , 6a(2) , 6b , 6c , and 6d). a(1) Total number of active participants at the beginning of the plan year a(2) Total number of active participants at the end of the plan year b Retired or separated participants receiving benefits c Other retired or separated participants entitled to future benefits d Subtotal. Add lines 6a(2) , 6b , and 6c e Deceased participants whose beneficiaries are receiving or are entitled to receive benefits. f Total. Add lines 6d and 6e g(1) Number of participants with account balances as of the beginning of the plan year (only defined contribution plans complete this item) g(2) Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item) h Number of participants who terminated employment during the plan year with accrued benefits that were less than 100% vested	6a(1) 507 6a(2) 517 6b 6 6c 103 6d 626 6e 0 6f 626 6g(1) 563 6g(2) 609 6h 59
7 Enter the total number of employers obligated to contribute to the plan (only multiemployer plans complete this item)	7

8a If the plan provides pension benefits, enter the applicable pension feature codes from the List of Plan Characteristics Codes in the instructions:

2E 2F 2G 2J 2K 2S 2T 3D 3H

b If the plan provides welfare benefits, enter the applicable welfare feature codes from the List of Plan Characteristics Codes in the instructions:

9a Plan funding arrangement (check all that apply) (1) ☐ Insurance (2) ☐ Code section 412(e)(3) insurance contracts (3) ☒ Trust (4) ☐ General assets of the sponsor	9b Plan benefit arrangement (check all that apply) (1) ☐ Insurance (2) ☐ Code section 412(e)(3) insurance contracts (3) ☒ Trust (4) ☐ General assets of the sponsor
---	---

10 Check all applicable boxes in 10a and 10b to indicate which schedules are attached, and, where indicated, enter the number attached. (See instructions)

a Pension Schedules

- (1)** ☒ **R** (Retirement Plan Information)
- (2)** ☐ **MB** (Multiemployer Defined Benefit Plan and Certain Money Purchase Plan Actuarial Information) - signed by the plan actuary
- (3)** ☐ **SB** (Single-Employer Defined Benefit Plan Actuarial Information) - signed by the plan actuary
- (4)** ☐ **DCG** (Individual Plan Information) – Number Attached _____
- (5)** ☐ **MEP** (Multiple-Employer Retirement Plan Information)

b General Schedules

- (1)** ☒ **H** (Financial Information)
- (2)** ☐ **I** (Financial Information – Small Plan)
- (3)** ☐ **A** (Insurance Information) – Number Attached _____
- (4)** ☒ **C** (Service Provider Information)
- (5)** ☒ **D** (DFE/Participating Plan Information)
- (6)** ☐ **G** (Financial Transaction Schedules)

Part III Form M-1 Compliance Information (to be completed by welfare benefit plans)

11a If the plan provides welfare benefits, was the plan subject to the Form M-1 filing requirements during the plan year? (See instructions and 29 CFR 2520.101-2.) ☐ Yes ☐ No

If "Yes" is checked, complete lines 11b and 11c.

11b Is the plan currently in compliance with the Form M-1 filing requirements? (See instructions and 29 CFR 2520.101-2.) ☐ Yes ☐ No

11c Enter the Receipt Confirmation Code for the 2023 Form M-1 annual report. If the plan was not required to file the 2023 Form M-1 annual report, enter the Receipt Confirmation Code for the most recent Form M-1 that was required to be filed under the Form M-1 filing requirements. (Failure to enter a valid Receipt Confirmation Code will subject the Form 5500 filing to rejection as incomplete.)

Receipt Confirmation Code _____

SCHEDULE C (Form 5500) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Service Provider Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA). ▶ File as an attachment to Form 5500.	OMB No. 1210-0110
		2023
		This Form is Open to Public Inspection.

For calendar plan year 2023 or fiscal plan year beginning 01/01/2023 and ending 12/31/2023

A Name of plan ASPEN AEROGELS, INC. 401(K) PLAN	B Three-digit plan number (PN) ▶ 001
C Plan sponsor's name as shown on line 2a of Form 5500 ASPEN AEROGELS, INC.	D Employer Identification Number (EIN) 04-3559972

Part I

Service Provider Information (see instructions)

You must complete this Part, in accordance with the instructions, to report the information required for **each person** who received, directly or indirectly, \$5,000 or more in total compensation (i.e., money or anything else of monetary value) in connection with services rendered to the plan or the person's position with the plan during the plan year. If a person received **only** eligible indirect compensation for which the plan received the required disclosures, you are required to answer line 1 but are not required to include that person when completing the remainder of this Part.

1

Information on Persons Receiving Only Eligible Indirect Compensation

- a Check "Yes" or "No" to indicate whether you are excluding a person from the remainder of this Part because they received only eligible indirect compensation for which the plan received the required disclosures (see instructions for definitions and conditions).. ☐ Yes ☒ No
- b If you answered line 1a "Yes," enter the name and EIN or address of each person providing the required disclosures for the service providers who received only eligible indirect compensation. Complete as many entries as needed (see instructions).

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

2. Information on Other Service Providers Receiving Direct or Indirect Compensation. Except for those persons for whom you answered "Yes" to line 1a above, complete as many entries as needed to list each person receiving, directly or indirectly, \$5,000 or more in total compensation (i.e., money or anything else of value) in connection with services rendered to the plan or their position with the plan during the plan year. (See instructions).

(a) Enter name and EIN or address (see instructions)

GLOBAL RETIREMENT PARTNERS LLC

4340 REDWOOD HWY
SUITE B60
SAN RAFAEL, CA 94903

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
27	INVESTMENT ADVISOR	55440	Yes ☐ No ☒	Yes ☐ No ☒	0	Yes ☐ No ☒

(a) Enter name and EIN or address (see instructions)

EMPOWER ANNUITY INS CO OF AMERICA

8515 EAST ORCHARD ROAD
GREENWOOD VILLAGE, CO 80111

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
64	RECORDKEEPER	54912	Yes ☒ No ☐	Yes ☒ No ☐	0	Yes ☒ No ☐

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes ☐ No ☐	Yes ☐ No ☐		Yes ☐ No ☐

Part I Service Provider Information (continued)

3. If you reported on line 2 receipt of indirect compensation, other than eligible indirect compensation, by a service provider, and the service provider is a fiduciary or provides contract administrator, consulting, custodial, investment advisory, investment management, broker, or recordkeeping services, answer the following questions for (a) each source from whom the service provider received \$1,000 or more in indirect compensation and (b) each source for whom the service provider gave you a formula used to determine the indirect compensation instead of an amount or estimated amount of the indirect compensation. Complete as many entries as needed to report the required information for each source.

(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	

Part II Service Providers Who Fail or Refuse to Provide Information

4 Provide, to the extent possible, the following information for each service provider who failed or refused to provide the information necessary to complete this Schedule.

(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide

Part III Termination Information on Accountants and Enrolled Actuaries (see instructions)
(complete as many entries as needed)

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

SCHEDULE D (Form 5500) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration		DFE/Participating Plan Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA). ▶ File as an attachment to Form 5500.		OMB No. 1210-0110 2023 This Form is Open to Public Inspection.	
For calendar plan year 2023 or fiscal plan year beginning 01/01/2023 and ending 12/31/2023					
A Name of plan ASPEN AEROGELS, INC. 401(K) PLAN				B Three-digit plan number (PN) ▶ 001	
C Plan or DFE sponsor's name as shown on line 2a of Form 5500 ASPEN AEROGELS, INC.				D Employer Identification Number (EIN) 04-3559972	
Part I Information on interests in MTIAs, CCTs, PSAs, and 103-12 IEs (to be completed by plans and DFEs) (Complete as many entries as needed to report all interests in DFEs)					
a Name of MTIA, CCT, PSA, or 103-12 IE: PUTNAM STABLE VALUE FUND					
b Name of sponsor of entity listed in (a): PUTNAM INVESTMENTS					
c EIN-PN 04-3159710-202		d Entity code C	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 1253019		
a Name of MTIA, CCT, PSA, or 103-12 IE:					
b Name of sponsor of entity listed in (a):					
c EIN-PN		d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)		
a Name of MTIA, CCT, PSA, or 103-12 IE:					
b Name of sponsor of entity listed in (a):					
c EIN-PN		d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)		
a Name of MTIA, CCT, PSA, or 103-12 IE:					
b Name of sponsor of entity listed in (a):					
c EIN-PN		d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)		
a Name of MTIA, CCT, PSA, or 103-12 IE:					
b Name of sponsor of entity listed in (a):					
c EIN-PN		d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)		
a Name of MTIA, CCT, PSA, or 103-12 IE:					
b Name of sponsor of entity listed in (a):					
c EIN-PN		d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)		
a Name of MTIA, CCT, PSA, or 103-12 IE:					
b Name of sponsor of entity listed in (a):					
c EIN-PN		d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)		
a Name of MTIA, CCT, PSA, or 103-12 IE:					
b Name of sponsor of entity listed in (a):					
c EIN-PN		d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)		
a Name of MTIA, CCT, PSA, or 103-12 IE:					
b Name of sponsor of entity listed in (a):					
c EIN-PN		d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)		
a Name of MTIA, CCT, PSA, or 103-12 IE:					
b Name of sponsor of entity listed in (a):					
c EIN-PN		d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)		
a Name of MTIA, CCT, PSA, or 103-12 IE:					
b Name of sponsor of entity listed in (a):					
c EIN-PN		d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)		
a Name of MTIA, CCT, PSA, or 103-12 IE:					
b Name of sponsor of entity listed in (a):					
c EIN-PN		d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)		
a Name of MTIA, CCT, PSA, or 103-12 IE:					
b Name of sponsor of entity listed in (a):					
c EIN-PN		d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)		
a Name of MTIA, CCT, PSA, or 103-12 IE:					
b Name of sponsor of entity listed in (a):					
c EIN-PN		d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)		
a Name of MTIA, CCT, PSA, or 103-12 IE:					
b Name of sponsor of entity listed in (a):					
c EIN-PN		d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)		
a Name of MTIA, CCT, PSA, or 103-12 IE:					
b Name of sponsor of entity listed in (a):					
c EIN-PN		d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)		
a Name of MTIA, CCT, PSA, or 103-12 IE:					
b Name of sponsor of entity listed in (a):					
c EIN-PN		d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)		
a Name of MTIA, CCT, PSA, or 103-12 IE:					
b Name of sponsor of entity listed in (a):					
c EIN-PN		d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)		
a Name of MTIA, CCT, PSA, or 103-12 IE:					
b Name of sponsor of entity listed in (a):					
c EIN-PN		d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)		
a Name of MTIA, CCT, PSA, or 103-12 IE:					
b Name of sponsor of entity listed in (a):					
c EIN-PN		d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)		
a Name of MTIA, CCT, PSA, or 103-12 IE:					
b Name of sponsor of entity listed in (a):					
c EIN-PN		d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)		
a Name of MTIA, CCT, PSA, or 103-12 IE:					
b Name of sponsor of entity listed in (a):					
c EIN-PN		d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)		
a Name of MTIA, CCT, PSA, or 103-12 IE:					
b Name of sponsor of entity listed in (a):					
c EIN-PN		d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)		
a Name of MTIA, CCT, PSA, or 103-12 IE:					
b Name of sponsor of entity listed in (a):					
c EIN-PN		d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)		
a Name of MTIA, CCT, PSA, or 103-12 IE:					
b Name of sponsor of entity listed in (a):					
c EIN-PN		d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)		
a Name of MTIA, CCT, PSA, or 103-12 IE:					
b Name of sponsor of entity listed in (a):					
c EIN-PN		d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)		
a Name of MTIA, CCT, PSA, or 103-12 IE:					
b Name of sponsor of entity listed in (a):					
c EIN-PN		d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)		
a Name of MTIA, CCT, PSA, or 103-12 IE:					
b Name of sponsor of entity listed in (a):					
c EIN-PN		d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)		
a Name of MTIA, CCT, PSA, or 103-12 IE:					
b Name of sponsor of entity listed in (a):					
c EIN-PN		d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)		
a Name of MTIA, CCT, PSA, or 103-12 IE:					
b Name of sponsor of entity listed in (a):					
c EIN-PN		d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)		
a Name of MTIA, CCT, PSA, or 103-12 IE:					
b Name of sponsor of entity listed in (a):					
c EIN-PN		d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)		
a Name of MTIA, CCT, PSA, or 103-12 IE:					
b Name of sponsor of entity listed in (a):					
c EIN-PN		d Entity code	e Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see		

a Name of MTIA, CCT, PSA, or 103-12 IE:**b** Name of sponsor of entity listed in (a):**c** EIN-PN**d** Entity
code**e** Dollar value of interest in MTIA, CCT, PSA, or
103-12 IE at end of year (see instructions)**a** Name of MTIA, CCT, PSA, or 103-12 IE:**b** Name of sponsor of entity listed in (a):**c** EIN-PN**d** Entity
code**e** Dollar value of interest in MTIA, CCT, PSA, or
103-12 IE at end of year (see instructions)**a** Name of MTIA, CCT, PSA, or 103-12 IE:**b** Name of sponsor of entity listed in (a):**c** EIN-PN**d** Entity
code**e** Dollar value of interest in MTIA, CCT, PSA, or
103-12 IE at end of year (see instructions)**a** Name of MTIA, CCT, PSA, or 103-12 IE:**b** Name of sponsor of entity listed in (a):**c** EIN-PN**d** Entity
code**e** Dollar value of interest in MTIA, CCT, PSA, or
103-12 IE at end of year (see instructions)**a** Name of MTIA, CCT, PSA, or 103-12 IE:**b** Name of sponsor of entity listed in (a):**c** EIN-PN**d** Entity
code**e** Dollar value of interest in MTIA, CCT, PSA, or
103-12 IE at end of year (see instructions)**a** Name of MTIA, CCT, PSA, or 103-12 IE:**b** Name of sponsor of entity listed in (a):**c** EIN-PN**d** Entity
code**e** Dollar value of interest in MTIA, CCT, PSA, or
103-12 IE at end of year (see instructions)**a** Name of MTIA, CCT, PSA, or 103-12 IE:**b** Name of sponsor of entity listed in (a):**c** EIN-PN**d** Entity
code**e** Dollar value of interest in MTIA, CCT, PSA, or
103-12 IE at end of year (see instructions)**a** Name of MTIA, CCT, PSA, or 103-12 IE:**b** Name of sponsor of entity listed in (a):**c** EIN-PN**d** Entity
code**e** Dollar value of interest in MTIA, CCT, PSA, or
103-12 IE at end of year (see instructions)**a** Name of MTIA, CCT, PSA, or 103-12 IE:**b** Name of sponsor of entity listed in (a):**c** EIN-PN**d** Entity
code**e** Dollar value of interest in MTIA, CCT, PSA, or
103-12 IE at end of year (see instructions)**a** Name of MTIA, CCT, PSA, or 103-12 IE:**b** Name of sponsor of entity listed in (a):**c** EIN-PN**d** Entity
code**e** Dollar value of interest in MTIA, CCT, PSA, or
103-12 IE at end of year (see instructions)

Part II Information on Participating Plans (to be completed by DFEs, other than DCGs)

(Complete as many entries as needed to report all participating plans. DCGs must report each participating plan using Schedule DCG.)

a Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN**a** Plan name**b** Name of
plan sponsor**c** EIN-PN

SCHEDULE H (Form 5500) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Financial Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA), and section 6058(a) of the Internal Revenue Code (the Code). ► File as an attachment to Form 5500.	OMB No. 1210-0110 2023 This Form is Open to Public Inspection
	For calendar plan year 2023 or fiscal plan year beginning 01/01/2023 and ending 12/31/2023	
	A Name of plan ASPEN AEROGELS, INC. 401(K) PLAN	B Three-digit plan number (PN) ► 001
C Plan sponsor's name as shown on line 2a of Form 5500 ASPEN AEROGELS, INC.	D Employer Identification Number (EIN) 04-3559972	

Part I	Asset and Liability Statement		
1 Current value of plan assets and liabilities at the beginning and end of the plan year. Combine the value of plan assets held in more than one trust. Report the value of the plan's interest in a commingled fund containing the assets of more than one plan on a line-by-line basis unless the value is reportable on lines 1c(9) through 1c(14). Do not enter the value of that portion of an insurance contract which guarantees, during this plan year, to pay a specific dollar benefit at a future date. Round off amounts to the nearest dollar. MTIAs, CCTs, PSAs, and 103-12 IEs do not complete lines 1b(1), 1b(2), 1c(8), 1g, 1h, and 1i. CCTs, PSAs, and 103-12 IEs also do not complete lines 1d and 1e. See instructions.			
Assets		(a) Beginning of Year	(b) End of Year
a Total noninterest-bearing cash	1a		
b Receivables (less allowance for doubtful accounts):			
(1) Employer contributions	1b(1)		
(2) Participant contributions	1b(2)		
(3) Other	1b(3)		
c General investments:			
(1) Interest-bearing cash (include money market accounts & certificates of deposit)	1c(1)		
(2) U.S. Government securities	1c(2)		
(3) Corporate debt instruments (other than employer securities):			
(A) Preferred	1c(3)(A)		
(B) All other	1c(3)(B)		
(4) Corporate stocks (other than employer securities):			
(A) Preferred	1c(4)(A)		
(B) Common	1c(4)(B)		
(5) Partnership/joint venture interests	1c(5)		
(6) Real estate (other than employer real property)	1c(6)		
(7) Loans (other than to participants)	1c(7)		
(8) Participant loans	1c(8)	410272	663503
(9) Value of interest in common/collective trusts	1c(9)	1254192	1253019
(10) Value of interest in pooled separate accounts	1c(10)		
(11) Value of interest in master trust investment accounts	1c(11)		
(12) Value of interest in 103-12 investment entities	1c(12)		
(13) Value of interest in registered investment companies (e.g., mutual funds)	1c(13)	22767242	31465966
(14) Value of funds held in insurance company general account (unallocated contracts)	1c(14)		
(15) Other	1c(15)		

1d Employer-related investments:		(a) Beginning of Year	(b) End of Year
(1) Employer securities	1d(1)		
(2) Employer real property	1d(2)		
e Buildings and other property used in plan operation	1e		
f Total assets (add all amounts in lines 1a through 1e)	1f	24431706	33382488
Liabilities			
g Benefit claims payable	1g		
h Operating payables	1h		
i Acquisition indebtedness	1i		
j Other liabilities	1j		
k Total liabilities (add all amounts in lines 1g through 1j)	1k		
Net Assets			
l Net assets (subtract line 1k from line 1f)	1l	24431706	33382488

Part II Income and Expense Statement

2 Plan income, expenses, and changes in net assets for the year. Include all income and expenses of the plan, including any trust(s) or separately maintained fund(s) and any payments/receipts to/from insurance carriers. Round off amounts to the nearest dollar. MTIAs, CCTs, PSAs, and 103-12 IEs do not complete lines 2a, 2b(1)(E), 2e, 2f, and 2g.

Income		(a) Amount	(b) Total
a Contributions:			
(1) Received or receivable in cash from: (A) Employers	2a(1)(A)	1478464	
(B) Participants	2a(1)(B)	4173801	
(C) Others (including rollovers)	2a(1)(C)	1862658	
(2) Noncash contributions	2a(2)		
(3) Total contributions. Add lines 2a(1)(A) , (B) , (C) , and line 2a(2)	2a(3)		7514923
b Earnings on investments:			
(1) Interest:			
(A) Interest-bearing cash (including money market accounts and certificates of deposit)	2b(1)(A)		
(B) U.S. Government securities	2b(1)(B)		
(C) Corporate debt instruments	2b(1)(C)		
(D) Loans (other than to participants)	2b(1)(D)		
(E) Participant loans	2b(1)(E)	33900	
(F) Other	2b(1)(F)		
(G) Total interest. Add lines 2b(1)(A) through (F)	2b(1)(G)		33900
(2) Dividends: (A) Preferred stock	2b(2)(A)		
(B) Common stock	2b(2)(B)		
(C) Registered investment company shares (e.g. mutual funds)	2b(2)(C)	800767	
(D) Total dividends. Add lines 2b(2)(A) , (B) , and (C)	2b(2)(D)		800767
(3) Rents	2b(3)		
(4) Net gain (loss) on sale of assets: (A) Aggregate proceeds	2b(4)(A)		
(B) Aggregate carrying amount (see instructions)	2b(4)(B)		
(C) Subtract line 2b(4)(B) from line 2b(4)(A) and enter result	2b(4)(C)		
(5) Unrealized appreciation (depreciation) of assets: (A) Real estate	2b(5)(A)		
(B) Other	2b(5)(B)		
(C) Total unrealized appreciation of assets. Add lines 2b(5)(A) and (B)	2b(5)(C)		

		(a) Amount	(b) Total
(6) Net investment gain (loss) from common/collective trusts.....	2b(6)		38070
(7) Net investment gain (loss) from pooled separate accounts.....	2b(7)		
(8) Net investment gain (loss) from master trust investment accounts.....	2b(8)		
(9) Net investment gain (loss) from 103-12 investment entities.....	2b(9)		
(10) Net investment gain (loss) from registered investment companies (e.g., mutual funds)	2b(10)		3929522
c Other income	2c		
d Total income. Add all income amounts in column (b) and enter total	2d		12317182

Expenses

e Benefit payment and payments to provide benefits:			
(1) Directly to participants or beneficiaries, including direct rollovers	2e(1)	3283062	
(2) To insurance carriers for the provision of benefits.....	2e(2)		
(3) Other	2e(3)		
(4) Total benefit payments. Add lines 2e(1) through (3)	2e(4)		3283062
f Corrective distributions (see instructions)	2f		3922
g Certain deemed distributions of participant loans (see instructions)	2g		3852
h Interest expense	2h		
i Administrative expenses:			
(1) Salaries and allowances	2i(1)		
(2) Contract administrator fees.....	2i(2)		
(3) Recordkeeping fees.....	2i(3)		
(4) IQPA audit fees.....	2i(4)		
(5) Investment advisory and investment management fees	2i(5)		
(6) Bank or trust company trustee/custodial fees	2i(6)		
(7) Actuarial fees	2i(7)		
(8) Legal fees	2i(8)		
(9) Valuation/appraisal fees	2i(9)		
(10) Other trustee fees and expenses	2i(10)		
(11) Other expenses	2i(11)	75564	
(12) Total administrative expenses. Add lines 2i(1) through (11)	2i(12)		75564
j Total expenses. Add all expense amounts in column (b) and enter total	2j		3366400

Net Income and Reconciliation

k Net income (loss). Subtract line 2j from line 2d	2k		8950782
l Transfers of assets:			
(1) To this plan	2l(1)		
(2) From this plan	2l(2)		

Part III Accountant's Opinion

3 Complete lines 3a through 3c if the opinion of an independent qualified public accountant is attached to this Form 5500. Complete line 3d if an opinion is not attached.

a The attached opinion of an independent qualified public accountant for this plan is (see instructions):

(1) ☒ Unmodified (2) ☐ Qualified (3) ☐ Disclaimer (4) ☐ Adverse

b Check the appropriate box(es) to indicate whether the IQPA performed an ERISA section 103(a)(3)(C) audit. Check both boxes (1) and (2) if the audit was performed pursuant to both 29 CFR 2520.103-8 and 29 CFR 2520.103-12(d). Check box (3) if pursuant to neither.

(1) ☒ DOL Regulation 2520.103-8 (2) ☐ DOL Regulation 2520.103-12(d) (3) ☐ neither DOL Regulation 2520.103-8 nor DOL Regulation 2520.103-12(d).

c Enter the name and EIN of the accountant (or accounting firm) below:

(1) Name: **AAFCPAS, INC**

(2) EIN: **04-2571780**

d The opinion of an independent qualified public accountant is **not attached** as part of Schedule H because:

(1) ☐ This form is filed for a CCT, PSA, DCG or MTIA. (2) ☐ It will be attached to the next Form 5500 pursuant to 29 CFR 2520.104-50.

Part IV Compliance Questions

4 CCTs and PSAs do not complete Part IV. MTIAs, 103-12 IEs, and GIAs do not complete lines 4a, 4e, 4f, 4g, 4h, 4k, 4m, 4n, or 5. 103-12 IEs also do not complete lines 4j and 4l. MTIAs also do not complete line 4l. DCGs do not complete lines 4e, 4f, 4k, 4l, and 5, and DCGs generally complete the rest of Part IV collectively for all plans in the DCG, except as otherwise provided (see instructions).

During the plan year:

	Yes	No	Amount
a Was there a failure to transmit to the plan any participant contributions within the time period described in 29 CFR 2510.3-102? Continue to answer "Yes" for any prior year failures until fully corrected. (See instructions and DOL's Voluntary Fiduciary Correction Program.)		☒	
b Were any loans by the plan or fixed income obligations due the plan in default as of the close of the plan year or classified during the year as uncollectible? Disregard participant loans secured by participant's account balance. (Attach Schedule G (Form 5500) Part I if "Yes" is checked.)		☒	
c Were any leases to which the plan was a party in default or classified during the year as uncollectible? (Attach Schedule G (Form 5500) Part II if "Yes" is checked.)		☒	
d Were there any nonexempt transactions with any party-in-interest? (Do not include transactions reported on line 4a. Attach Schedule G (Form 5500) Part III if "Yes" is checked.)		☒	
e Was this plan covered by a fidelity bond?	☒		2000000
f Did the plan have a loss, whether or not reimbursed by the plan's fidelity bond, that was caused by fraud or dishonesty?		☒	
g Did the plan hold any assets whose current value was neither readily determinable on an established market nor set by an independent third party appraiser?		☒	
h Did the plan receive any noncash contributions whose value was neither readily determinable on an established market nor set by an independent third party appraiser?		☒	
i Did the plan have assets held for investment? (Attach schedule(s) of assets if "Yes" is checked, and see instructions for format requirements.)	☒		
j Were any plan transactions or series of transactions in excess of 5% of the current value of plan assets? (Attach schedule of transactions if "Yes" is checked and see instructions for format requirements.)		☒	
k Were all the plan assets either distributed to participants or beneficiaries, transferred to another plan, or brought under the control of the PBGC?		☒	
l Has the plan failed to provide any benefit when due under the plan?		☒	
m If this is an individual account plan, was there a blackout period? (See instructions and 29 CFR 2520.101-3.)		☒	
n If 4m was answered "Yes," check the "Yes" box if you either provided the required notice or one of the exceptions to providing the notice applied under 29 CFR 2520.101-3.			

5a Has a resolution to terminate the plan been adopted during the plan year or any prior plan year? ☐ Yes ☒ No
If "Yes," enter the amount of any plan assets that reverted to the employer this year _____.

5b If, during this plan year, any assets or liabilities were transferred from this plan to another plan(s), identify the plan(s) to which assets or liabilities were transferred. (See instructions.)

5b(1) Name of plan(s)	5b(2) EIN(s)	5b(3) PN(s)

5c Was the plan a defined benefit plan covered under the PBGC insurance program at any time during this plan year? (See ERISA section 4021 and instructions.) ☐ Yes ☐ No ☐ Not determined

If "Yes" is checked, enter the My PAA confirmation number from the PBGC premium filing for this plan year _____.

SCHEDULE R (Form 5500) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Retirement Plan Information This schedule is required to be filed under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6058(a) of the Internal Revenue Code (the Code). ▶ File as an attachment to Form 5500.	OMB No. 1210-0110 2023 This Form is Open to Public Inspection.
For calendar plan year 2023 or fiscal plan year beginning 01/01/2023 and ending 12/31/2023		
A Name of plan ASPEN AEROGELS, INC. 401(K) PLAN		B Three-digit plan number (PN) ▶ 001
C Plan sponsor's name as shown on line 2a of Form 5500 ASPEN AEROGELS, INC.		D Employer Identification Number (EIN) 04-3559972
Part I	Distributions	
All references to distributions relate only to payments of benefits during the plan year.		
1 Total value of distributions paid in property other than in cash or the forms of property specified in the instructions.....		1 0
2 Enter the EIN(s) of payor(s) who paid benefits on behalf of the plan to participants or beneficiaries during the year (if more than two, enter EINs of the two payors who paid the greatest dollar amounts of benefits): EIN(s): 84-1455663		
Profit-sharing plans, ESOPs, and stock bonus plans, skip line 3.		
3 Number of participants (living or deceased) whose benefits were distributed in a single sum, during the plan year		3
Part II	Funding Information (If the plan is not subject to the minimum funding requirements of section 412 of the Internal Revenue Code or ERISA section 302, skip this Part.)	
4 Is the plan administrator making an election under Code section 412(d)(2) or ERISA section 302(d)(2)? ☐ Yes ☐ No ☐ N/A If the plan is a defined benefit plan, go to line 8.		
5 If a waiver of the minimum funding standard for a prior year is being amortized in this plan year, see instructions and enter the date of the ruling letter granting the waiver. Date: Month _____ Day _____ Year _____ If you completed line 5, complete lines 3, 9, and 10 of Schedule MB and do not complete the remainder of this schedule.		
6 a Enter the minimum required contribution for this plan year (include any prior year accumulated funding deficiency not waived)		6a
b Enter the amount contributed by the employer to the plan for this plan year		6b
c Subtract the amount in line 6b from the amount in line 6a. Enter the result (enter a minus sign to the left of a negative amount)		6c
If you completed line 6c, skip lines 8 and 9.		
7 Will the minimum funding amount reported on line 6c be met by the funding deadline? ☐ Yes ☐ No ☐ N/A		
8 If a change in actuarial cost method was made for this plan year pursuant to a revenue procedure or other authority providing automatic approval for the change or a class ruling letter, does the plan sponsor or plan administrator agree with the change? ☐ Yes ☐ No ☐ N/A		
Part III	Amendments	
9 If this is a defined benefit pension plan, were any amendments adopted during this plan year that increased or decreased the value of benefits? If yes, check the appropriate box. If no, check the "No" box. ☐ Increase ☐ Decrease ☐ Both ☐ No		
Part IV	ESOPs (see instructions). If this is not a plan described under section 409(a) or 4975(e)(7) of the Internal Revenue Code, skip this Part.	
10 Were unallocated employer securities or proceeds from the sale of unallocated securities used to repay any exempt loan?..... ☐ Yes ☐ No		
11 a Does the ESOP hold any preferred stock? ☐ Yes ☐ No		
b If the ESOP has an outstanding exempt loan with the employer as lender, is such loan part of a "back-to-back" loan? (See instructions for definition of "back-to-back" loan.) ☐ Yes ☐ No		
12 Does the ESOP hold any stock that is not readily tradable on an established securities market? ☐ Yes ☐ No		
For Paperwork Reduction Act Notice, see the Instructions for Form 5500.		
Schedule R (Form 5500) 2023 v. 230707		

Part V Additional Information for Multiemployer Defined Benefit Pension Plans

13 Enter the following information for each employer that (1) contributed more than 5% of total contributions to the plan during the plan year or (2) was one of the top-ten highest contributors (measured in dollars). See instructions. *Complete as many entries as needed to report all applicable employers.*

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

14 Enter the number of deferred vested and retired participants (inactive participants), as of the beginning of the plan year, whose contributing employer is no longer making contributions to the plan for:		
a The current plan year. Check the box to indicate the counting method used to determine the number of inactive participants: ☐ last contributing employer ☐ alternative ☐ reasonable approximation (see instructions for required attachment)	14a	
b The plan year immediately preceding the current plan year. ☐ Check the box if the number reported is a change from what was previously reported (see instructions for required attachment)	14b	
c The second preceding plan year. ☐ Check the box if the number reported is a change from what was previously reported (see instructions for required attachment)	14c	
15 Enter the ratio of the number of participants under the plan on whose behalf no employer had an obligation to make an employer contribution during the current plan year to:		
a The corresponding number for the plan year immediately preceding the current plan year	15a	
b The corresponding number for the second preceding plan year	15b	
16 Information with respect to any employers who withdrew from the plan during the preceding plan year:		
a Enter the number of employers who withdrew during the preceding plan year	16a	
b If line 16a is greater than 0, enter the aggregate amount of withdrawal liability assessed or estimated to be assessed against such withdrawn employers	16b	
17 If assets and liabilities from another plan have been transferred to or merged with this plan during the plan year, check box and see instructions regarding supplemental information to be included as an attachment..... ☐		

Part VI	Additional Information for Single-Employer and Multiemployer Defined Benefit Pension Plans
----------------	---

18 If any liabilities to participants or their beneficiaries under the plan as of the end of the plan year consist (in whole or in part) of liabilities to such participants and beneficiaries under two or more pension plans as of immediately before such plan year, check box and see instructions regarding supplemental information to be included as an attachment..... ☐	
19 If the total number of participants is 1,000 or more, complete lines (a) and (b):	
a Enter the percentage of plan assets held as: Public Equity: _____% Private Equity: _____% Investment-Grade Debt and Interest Rate Hedging Assets: _____% High-Yield Debt: _____% Real Assets: _____% Cash or Cash Equivalents: _____% Other: _____%	
b Provide the average duration of the Investment-Grade Debt and Interest Rate Hedging Assets: ☐ 0-5 years ☐ 5-10 years ☐ 10-15 years ☐ 15 years or more	
20 PBGC missed contribution reporting requirements. If this is a multiemployer plan or a single-employer plan that is not covered by PBGC, skip line 20.	
a Is the amount of unpaid minimum required contributions for all years from Schedule SB (Form 5500) line 40 greater than zero? ☐ Yes ☐ No	
b If line 20a is "Yes," has PBGC been notified as required by ERISA sections 4043(c)(5) and/or 303(k)(4)? Check the applicable box:	
☐ Yes.	
☐ No. Reporting was waived under 29 CFR 4043.25(c)(2) because contributions equal to or exceeding the unpaid minimum required contribution were made by the 30th day after the due date.	
☐ No. The 30-day period referenced in 29 CFR 4043.25(c)(2) has not yet ended, and the sponsor intends to make a contribution equal to or exceeding the unpaid minimum required contribution by the 30th day after the due date.	
☐ No. Other. Provide explanation. _____	

Part VII	IRS Compliance Questions
-----------------	---------------------------------

21a Does the plan satisfy the coverage and nondiscrimination tests of Code sections 410(b) and 401(a)(4) by combining this plan with any other plans under the permissive aggregation rules? ☐ Yes ☒ No	
21b If this is a Code section 401(k) plan, check all boxes that apply to indicate how the plan is intended to satisfy the nondiscrimination requirements for employee deferrals and employer matching contributions (as applicable) under Code sections 401(k)(3) and 401(m)(2).	
☐ Design-based safe harbor method	
☐ "Prior year" ADP test	
☒ "Current year" ADP test	
☐ N/A	
22 If the plan sponsor is an adopter of a pre-approved plan that received a favorable IRS Opinion Letter, enter the date of the Opinion Letter <u>06 / 30 / 2020</u> (MM/DD/YYYY) and the Opinion Letter serial number <u>Q703354A</u> .	



ASPEN AEROGELS, INC. 401(K) PLAN

FINANCIAL STATEMENTS

**AS OF DECEMBER 31, 2023 AND 2022 AND
FOR THE YEAR ENDED DECEMBER 31, 2023**

ASPEN AEROGELS, INC. 401(K) PLAN

Contents
December 31, 2023 and 2022

	<u>Pages</u>
Independent Auditor's Report	1 - 1B
Financial Statements:	
Statements of Net Assets Available for Benefits	2
Statement of Changes in Net Assets Available for Benefits	3
Notes to Financial Statements	4 - 10
Supplemental Schedule:	
Form 5500, Schedule H, Part IV, Line 4i - Schedule of Assets Held at End of Year	11

Independent Auditor's Report

To the Trustees and Plan Administrator of
Aspen Aerogels, Inc. 401(k) Plan:

Scope and Nature of the ERISA Section 103(a)(3)(C) Audit

We have performed audits of the financial statements of Aspen Aerogels, Inc. 401(k) Plan, an employee benefit plan subject to the Employee Retirement Income Security Act of 1974 (ERISA), as permitted by ERISA Section 103(a)(3)(C) (ERISA Section 103(a)(3)(C) audit). The financial statements comprise the statements of net assets available for benefits as of December 31, 2023 and 2022, and the related statement of changes in net assets available for benefits for the year ended December 31, 2023, and the related notes to the financial statements.

Management, having determined it is permissible in the circumstances, has elected to have the audits of Aspen Aerogels, Inc. 401(k) Plan's financial statements performed in accordance with ERISA Section 103(a)(3)(C) pursuant to 29 CFR 2520.103-8 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA. As permitted by ERISA Section 103(a)(3)(C), our audits need not extend to any statements or information related to assets held for investment of the Plan (investment information) by a bank or similar institution or insurance carrier that is regulated, supervised, and subject to periodic examination by a state or federal agency, provided that the statements or information regarding assets so held are prepared and certified to by the bank or similar institution or insurance carrier in accordance with 29 CFR 2520.103-5 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA (qualified institution).

Management has obtained certifications from a qualified institution as of December 31, 2023 and 2022, and for the year ended December 31, 2023, stating that the certified investment information, as described in Note 3 to the financial statements, is complete and accurate.

Opinion

In our opinion, based on our audits and on the procedures performed as described in the Auditor's Responsibilities for the Audit of the Financial Statements section

- the amounts and disclosures in the accompanying financial statements, other than those agreed to or derived from the certified investment information, are presented fairly, in all material respects, in accordance with accounting principles generally accepted in the United States of America.
- the information in the accompanying financial statements related to assets held by and certified to by a qualified institution agrees to, or is derived from, in all material respects, the information prepared and certified by an institution that management determined meets the requirements of ERISA Section 103(a)(3)(C).

Basis for Opinion

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (GAAS). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of Aspen Aerogels, Inc. 401(k) Plan and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our ERISA Section 103(a)(3)(C) audit opinion.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error. Management's election of the ERISA Section 103(a)(3)(C) audit does not affect management's responsibility for the financial statements.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about Aspen Aerogels, Inc. 401(k) Plan's ability to continue as a going concern for one year after the date the financial statements are available to be issued.

Management is also responsible for maintaining a current plan instrument, including all plan amendments, administering the plan, and determining that the Plan's transactions that are presented and disclosed in the financial statements are in conformity with the Plan's provisions, including maintaining sufficient records with respect to each of the participants, to determine the benefits due or which may become due to such participants.

Auditor's Responsibilities for the Audit of the Financial Statements

Except as described in the Scope and Nature of the ERISA Section 103(a)(3)(C) Audit section of our report, our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if, there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of Aspen Aerogels, Inc. 401(k) Plan's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about Aspen Aerogels, Inc. 401(k) Plan's ability to continue as a going concern for a reasonable period of time.

Our audits did not extend to the certified investment information, except for obtaining and reading the certification, comparing the certified investment information with the related information presented and disclosed in the financial statements, and reading the disclosures relating to the certified investment information to assess whether they are in accordance with the presentation and disclosure requirements of accounting principles generally accepted in the United States of America.

Auditor's Responsibilities for the Audit of the Financial Statements (Continued)

Accordingly, the objective of an ERISA Section 103(a)(3)(C) audit is not to express an opinion about whether the financial statements as a whole are presented fairly, in all material respects, in accordance with accounting principles generally accepted in the United States of America.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Other Matter - Supplemental Schedule Required by ERISA

The supplemental schedule, Form 5500, Schedule H, Part IV, Line 4i - Schedule of Assets Held at End of Year as of December 31, 2023, is presented for purposes of additional analysis and is not a required part of the financial statements but is supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information included in the supplemental schedule, other than that agreed to or derived from the certified investment information, has been subjected to auditing procedures applied in the audits of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with GAAS. For information included in the supplemental schedule that agreed to or is derived from the certified investment information, we compared such information to the related certified investment information.

In forming our opinion on the supplemental schedule, we evaluated whether the supplemental schedule, other than the information agreed to or derived from the certified investment information, including its form and content, is presented in conformity with the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA.

In our opinion

- the form and content of the supplemental schedule, other than the information in the supplemental schedule that agreed to or is derived from the certified investment information, are presented, in all material respects, in conformity with the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA.
- the information in the supplemental schedule related to assets held by and certified to by a qualified institution agrees to, or is derived from, in all material respects, the information prepared and certified by an institution that management determined meets the requirements of ERISA Section 103(a)(3)(C).

AAFCPAs, Inc.

Westborough, Massachusetts
August 13, 2024

ASPEN AEROGELS, INC. 401(K) PLAN

Statements of Net Assets Available for Benefits
December 31, 2023 and 2022

Assets	2023	2022
Investments, at fair value	\$ 32,718,985	\$ 24,021,434
Notes receivable from participants	663,503	410,272
Net Assets Available for Benefits	\$ 33,382,488	\$ 24,431,706

ASPEN AEROGELS, INC. 401(K) PLANStatement of Changes in Net Assets Available for Benefits
For the Year Ended December 31, 2023

Additions to Net Assets Attributed to:

Investment income:

Net appreciation in fair value of investments	\$ 3,967,592
Interest and dividends	<u>800,767</u>

Total investment income	<u>4,768,359</u>
-------------------------	------------------

Interest income on notes receivable from participants	<u>33,900</u>
---	---------------

Contributions:

Participant	4,173,801
Rollover	1,862,658
Employer	<u>1,478,464</u>

Total contributions	<u>7,514,923</u>
---------------------	------------------

Total additions	<u>12,317,182</u>
-----------------	-------------------

Deductions from Net Assets Attributed to:

Benefits paid to participants	3,290,836
Administrative expenses	<u>75,564</u>

Total deductions	<u>3,366,400</u>
------------------	------------------

Net increase	8,950,782
--------------	-----------

Net Assets Available for Benefits:

Beginning of year	<u>24,431,706</u>
-------------------	-------------------

End of year	<u><u>\$ 33,382,488</u></u>
-------------	-----------------------------

ASPEN AEROGELS, INC. 401(K) PLAN

Notes to Financial Statements
December 31, 2023 and 2022

1. DESCRIPTION OF PLAN

The following description of the Aspen Aerogels, Inc. 401(k) Plan (the Plan) is provided for general information purposes only. Participants should refer to the plan document for a more complete description of the Plan's provisions.

a. General

The Plan is a defined contribution 401(k) plan sponsored by Aspen Aerogels, Inc. (the Company) (the Plan Sponsor). The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974 (ERISA). Empower Trust Company, LLC serves as the Trustee and record-keeper for the Plan.

All full-time employees who are not covered by a collective bargaining agreement, or are not a non-resident alien or leased employee, are immediately eligible to participate in the Plan. Temporary employees who complete 250 hours of service within the six-month period from commencement of employment are allowed entry into the Plan. Temporary employees who fail to meet the 250 hour service requirement must complete 1,000 hours of service within a twelve-month period to be eligible to participate in the Plan.

b. Contributions

Participants may elect to make contributions up to the maximum allowable of their eligible compensation, subject to the limitations established by the Internal Revenue Service (IRS). The Plan has a Roth component in which participants can elect to make after-tax contributions into the Plan. Participants who have attained age 50 before the end of the Plan year are eligible to make catch-up contributions. Participants may elect to rollover distributions from other qualified retirement plans (rollover contributions).

Employees of the Company who do not affirmatively elect otherwise are automatically enrolled into the Plan. Employees who are automatically enrolled default to deferral contributions in the amount of 6%, unless the participant elects otherwise.

Employer matching contributions are discretionary and are determined annually by the Company. During the year ended December 31, 2023, the Company made matching contributions equal to 50% of participant elected contributions. The Company limited the matching contribution for amounts in excess of the first 6% of compensation as elective contributions.

The Company may elect to make discretionary non-elective employer contributions to the Plan which are allocated to participants based upon relative compensation, as defined in the plan document. Only participants employed by the Company and meeting the eligibility requirements as of the last day of the plan year are eligible to receive the discretionary non-elective employer contributions. The Company did not make a discretionary non-elective contribution for the year ended December 31, 2023.

The Plan allows for employer true up matching contributions, which are calculated at the end of the plan year and are funded subsequent to year end. Employer true up matching contributions for the plan year December 31, 2023, was \$52,506 and was funded by forfeitures that were included in the Putnam Stable Value Fund in the accompanying statements of net assets available for benefits.

Participants can direct the allocation of their accounts to any of the stipulated investment funds offered by the Plan and may change their investment options at any time during the year.

ASPEN AEROGELS, INC. 401(K) PLAN

Notes to Financial Statements
December 31, 2023 and 2022

1. DESCRIPTION OF PLAN (Continued)

c. Participant Accounts

Each participant's account is credited with the participant's contribution and allocations of (a) the Company's contributions and, (b) plan earnings or losses, and is charged with an allocation of administrative expenses paid by the Plan. The benefit to which a participant is entitled is the benefit that can be provided from the participant's vested account.

d. Vesting

Participants are immediately vested in all employee contributions plus actual earnings thereon. Employer contributions vest as follows:

<u>Years of Service</u>	<u>Vested Percentage</u>
Less than one year	0%
One year but less than two	33 1/3%
Two years but less than three	66 2/3%
Three years or more	100%

Upon death or disability, participants will become 100% vested in employer contributions.

e. Forfeitures

The portion of any non-vested employer contributions remaining in a participant's account following termination of employment can be used to offset administrative expenses of the Plan or to reduce future voluntary contributions of the Company. There were \$66,083 and \$4,449 of unallocated forfeitures as of December 31, 2023 and 2022, respectively. There were \$23,893 of forfeitures used to reduce the Company's contribution in 2023. In July 2024, there was an employer true-up matching contribution for the year ended December 31, 2023 funded from forfeitures in the amount of \$52,506.

f. Payment of Benefits

Upon death, disability or retirement on or after age 65, participants are entitled to a distribution of the balance of their accounts. There is no option for early retirement. Participants may also be entitled to a hardship withdrawal as determined in accordance with the Plan's provisions. Participants may also withdraw all or part of their rollover contributions in the Plan at any time and at any age. In addition, participants who have attained the age of 59 ½ may elect to withdraw all or part of their vested account balance from the Plan. The Plan provides for the direct rollover to an individual retirement account for terminated participants with balances greater than \$1,000 and not more than \$5,000, unless directed otherwise by the participant. In addition, the Plan allows the Plan Administrator to automatically distribute to terminated participants their entire vested balance which does not exceed \$1,000. Effective January 1, 2024, the involuntary distribution amount was increased to \$7,000 in accordance with SECURE Act 2.0.

A participant may also request a withdrawal upon demonstration to the Plan Administrator that they are suffering a "hardship". Hardship is defined in applicable regulations promulgated or to be promulgated pursuant to the Internal Revenue Code (the Code) or standards established by the Secretary of the Treasury or their delegate.

ASPEN AEROGELS, INC. 401(K) PLAN

Notes to Financial Statements
December 31, 2023 and 2022

1. DESCRIPTION OF PLAN (Continued)

g. Notes Receivable from Participants

The Plan allows participants to borrow against their accounts. Such loans shall not exceed the lesser of \$50,000 or 50% of the participant's vested interest in their account. The Plan only allows one loan outstanding at a time and has established a minimum loan request of \$1,000 per loan. Loans can be for any purpose with a term not to exceed five years, unless it is for the purchase of a primary residence, in which case the term shall not exceed fifteen years. Loans bear interest at the prime rate, plus 1%, as reported by the *Wall Street Journal*, at the inception of the loan.

h. Revenue Sharing

The Plan received revenue credits from Empower Trust Company, LLC. The revenue credit account can be used to pay plan expenses or can be allocated to eligible plan participants as defined in the plan document. During the year ended December 31, 2023, funds in the amount of \$34,788 were used to pay plan expenses. There was no balance in the revenue sharing account as of December 31, 2023 and 2022, and the revenue sharing account is held within the Putnam Stable Value Fund.

i. SECURE Act 2.0

On December 29, 2022, the Consolidated Appropriations Act of 2023, which included SECURE Act 2.0, was executed. SECURE Act 2.0 contains over ninety new retirement provisions, with varying effective dates through 2027. Since SECURE Act 2.0 provisions include both required and optional elements, the Plan Administrator will determine the optional provisions to elect and amend the plan document accordingly. Most of the significant provisions will become effective in 2024, and thereafter. Accordingly, there is no material impact to the Plan's 2023 financial statements.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

The Plan prepares its financial statements in accordance with generally accepted accounting principles (U.S. GAAP) established by the Financial Accounting Standards Board (FASB). References to U.S. GAAP in these notes are to the FASB Accounting Standards Codification (ASC).

Use of Estimates

The preparation of financial statements in accordance with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and changes therein and disclosure of contingent assets and liabilities at the date of the financial statements. Actual results could differ from those estimates.

Investment Valuation and Income Recognition

The Plan's investments are reported at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between participants at the measurement date. See Note 4 for discussion of fair value measurement.

The change in the fair value of investments and realized gains (losses) are reflected in the accompanying statement of changes in net assets available for benefits as net appreciation in fair value of investments. Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date.

ASPEN AEROGELS, INC. 401(K) PLAN

Notes to Financial Statements
December 31, 2023 and 2022

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Notes Receivable from Participants

Notes receivable from participants are measured at their unpaid principal balance plus any accrued but unpaid interest. Interest income on notes receivable from participants is recorded on the accrual basis. Related fees are recorded as administrative expenses and are expensed when they are incurred. Delinquent participant loans are reclassified as distributions in accordance with the provisions of the Plan. During 2023, there were \$3,852 of loans deemed distributed included in benefits paid to participants in the accompanying statement of changes in net assets available for benefits. No allowances for credit losses have been recorded as of December 31, 2023 and 2022.

Contributions

Contributions from plan participants and employer matching contributions from the Company are recorded in the year which the participant contributions are withheld from compensation. Discretionary non-elective contributions are recorded when such contributions are authorized by the Company.

Payment of Benefits

Benefits are recorded when paid.

Administrative Expenses

The Plan Administrator has the authority to appoint person(s) or entities to carry out the operations of the Plan. The Company pays certain administrative expenses of the Plan, except for administrative costs of mutual funds which reduce investment returns, and distribution and loan processing fees which are paid by the Plan.

Subsequent Events

Subsequent events have been evaluated through August 13, 2024, which is the date the financial statements were available to be issued. Except for what was noted in Note 1f, there were no other events that met the criteria for recognition or disclosure in the financial statements.

3. INFORMATION PREPARED AND CERTIFIED BY THE PLAN'S QUALIFIED INSTITUTION

The Plan Administrator has elected the method of annual reporting compliance permitted by ERISA Section 103(a)(3)(C) pursuant to 29 CFR 2520.103-8 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA. Accordingly, Empower Trust Company, LLC, the qualified institution, has certified to the completeness and accuracy of all investments and notes receivable from participants reported in the accompanying statements of net assets available for benefits as of December 31, 2023 and 2022, and the supplemental schedule, Form 5500, Schedule H, Part IV, Line 4i - Schedule of Assets Held at End of Year as of December 31, 2023, and the related investment transactions and investment income and interest income on notes receivable from participants reported in the accompanying statement of changes in net assets available for benefits for the year ended December 31, 2023.

At the request of the Plan Administrator, the Plan's independent auditors did not perform auditing procedures with respect to certified investment information, except for comparing such certified investment information included in the accompanying financial statements and supplemental schedule.

4. FAIR VALUE MEASUREMENT

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants as of the measurement date. *Fair Value Measurement* establishes a hierarchy of the valuation techniques based upon whether the inputs to those valuation techniques reflect assumptions other market participants would use based upon market data obtained from independent sources (also referred to as observable inputs). The fair value hierarchy is as follows:

Level 1: Inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets that the Plan has the ability to access.

Level 2: Inputs to the valuation methodology include:

- Quoted prices for similar assets or liabilities in active markets;
- Quoted prices for identical or similar assets or liabilities in inactive markets;
- Inputs other than quoted prices that are observable for the asset or liability; and
- Inputs that are derived principally from or corroborated by observable market data by correlation or other means.

If the asset or liability has a specified (contractual) term, the Level 2 input must be observable for substantially the full term of the asset or liability.

Level 3: Inputs to the valuation methodology are unobservable and significant to the fair value measurement.

The asset or liability's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques maximize the use of relevant observable inputs and minimize the use of unobservable inputs.

Following is a description of the valuation methodologies used for assets measured at fair value:

Mutual funds: are valued at the daily closing price as reported by the fund. Mutual funds held by the Plan are open-end mutual funds that are registered with the Securities and Exchange Commission. These funds are required to publish their daily net asset value (NAV) and to transact at that price. The mutual funds held by the Plan are deemed to be actively traded.

Common Collective Trust (CCT): is valued at the NAV of units of the common collective trust. The NAV, as provided by the qualified institution, is used as a practical expedient to estimate fair value. The NAV is based on the fair value of the underlying investments held by the fund less its liabilities. The practical expedient is not used when it is determined to be probable that the fund will sell the investment for an amount different than the reported NAV. Participant transactions (purchases and sales) may occur daily. Were the Plan to initiate a full redemption of the common collective trust, the investment advisor reserves the right to temporarily delay withdrawal from the trust in order to ensure that securities liquidations will be carried out in an orderly business manner. The common collective trust seeks to maintain a stable value of \$1 per unit.

There have been no changes in the methodologies used at December 31, 2023 and 2022.

The preceding methods used to determine fair value may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair value. While the Plan believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

ASPEN AEROGELS, INC. 401(K) PLAN

Notes to Financial Statements
December 31, 2023 and 2022

4. FAIR VALUE MEASUREMENT (Continued)

The following table sets forth by level, within the fair value hierarchy, the Plan's assets as of December 31:

<u>Description</u>	<u>2023</u>			<u>Total</u>
	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	
Mutual Funds	<u>\$ 31,465,966</u>	<u>\$ -</u>	<u>\$ -</u>	\$ 31,465,966
Common Collective Trust, measured at NAV				<u>1,253,019</u>
Total investments, at fair value				<u>\$ 32,718,985</u>

<u>Description</u>	<u>2022</u>			<u>Total</u>
	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	
Mutual Funds	<u>\$ 22,767,242</u>	<u>\$ -</u>	<u>\$ -</u>	\$ 22,767,242
Common Collective Trust, measured at NAV				<u>1,254,192</u>
Total investments, at fair value				<u>\$ 24,021,434</u>

The following table summarizes the Plan's investments measured at fair value based on NAV as a practical expedient as of December 31:

<u>Type</u>	<u>Fair Value</u>		<u>Unfunded Commitment</u>	<u>Redemption Frequency</u>	<u>Redemption Notice Period</u>
	<u>2023</u>	<u>2022</u>			
Common Collective Trust	<u>\$ 1,253,019</u>	<u>\$ 1,254,192</u>	<u>\$ -</u>	Daily	None

5. COMMON COLLECTIVE TRUST

The Plan's investment in the CCT is represented by the CCT's underlying investment in the Putnam Stable Value Fund which invests in fully-benefit-responsive investment contracts, commonly referred to as guaranteed investment contracts (GICs), synthetic investment contracts, and similarly designed contracts issued by insurance companies, banks and other financial institutions. The Plan's investment in the CCT is not considered a fully-benefit-responsive investment contract and is reported at fair value (see Note 4).

6. TAX STATUS

The Plan Sponsor has obtained an opinion letter dated June 30, 2020, in which the IRS stated that the restated prototype plan document was in compliance with applicable requirements of the Code. The Plan Administrator timely adopted the restated prototype Plan. Although the Plan has been amended since receiving the opinion letter, the Plan Administrator believes that the Plan is currently being operated in accordance with the Code.

U.S. GAAP requires Plan management to evaluate tax positions taken by the Plan and recognizes a tax liability (or asset) if the Plan has taken an uncertain position that more-likely-than-not would not be sustained upon examination by the applicable authorities. The Plan is subject to routine audits by taxing jurisdictions, however, there are currently no audits for any tax periods in progress.

ASPEN AEROGELS, INC. 401(K) PLAN

Notes to Financial Statements
December 31, 2023 and 2022

7. PLAN TERMINATION

Although it has not expressed any intent to do so, the Company has the right under the Plan to discontinue its contributions at any time and to terminate the Plan subject to the provisions of ERISA. In the event of plan termination, participants would become 100% vested in their total accounts.

8. RELATED PARTY AND PARTY-IN-INTEREST TRANSACTIONS

Section 3(14) of ERISA defines a party-in-interest to include, among others, fiduciaries or employees of the Plan, any person who provides services to the Plan or an employer whose employees are covered by the Plan. A portion of the Plan's assets are invested in mutual funds managed by Empower Trust Company, LLC, the qualified institution and record keeper, therefore, these transactions qualify as party-in-interest transactions; however, they are exempt from the prohibited transactions rule under ERISA. In addition, notes receivable from participants qualify as party-in-interest transactions. Direct administrative expenses charged to the Plan and paid to Empower Trust Company, LLC and the investment advisor of the Plan totaled \$110,352, which is presented net of \$34,788 of the revenue sharing credit in the statement of changes in net assets available for benefits for the year ended December 31, 2023.

9. RISKS AND UNCERTAINTIES

The Plan invests in various investment securities. Investment securities are exposed to various risks, such as interest rate, market and credit risk. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect participants' account balances and the amounts reported in the accompanying statements of net assets available for benefits.

ASPEN AEROGELS, INC. 401(K) PLAN
(PLAN NO. 001, EIN: 04-3559972)

Form 5500, Schedule H, Part IV, Line 4i - Schedule of Assets Held at End of Year
December 31, 2023

(a)	(b)	(c) Description of Investment including Maturity Date, Rate of Interest, Collateral, Par, or Maturity Value	(d)	(e)
Party-In- Interest	Identity of Issue, Borrower, Lessor, or Similar Party		Cost	Current Value
	Fidelity 500 Index Fund (1FXAIX)	Mutual Fund	**	\$ 3,883,345
	Putnam Growth Opportunities A (1POGAX)	Mutual Fund	**	2,931,749
	Blackrock Lifepath Index 2025 K (1LIBKX)	Mutual Fund	**	2,304,874
	Blackrock Lifepath Index 2030 K (1LINKX)	Mutual Fund	**	2,186,094
	Blackrock Lifepath Index 2045 K (1LIHKX)	Mutual Fund	**	2,045,745
	Blackrock Lifepath Index 2035 K (1LIJKX)	Mutual Fund	**	2,017,880
	Putnam Large Cap Value A (1PEYAX)	Mutual Fund	**	1,850,937
	Blackrock Lifepath Index 2050 K (1LIPKX)	Mutual Fund	**	1,826,663
	Blackrock Lifepath Index 2055 K (1LIVKX)	Mutual Fund	**	1,723,441
	Fidelity Mid Cap Index Fund (1FSMDX)	Mutual Fund	**	1,532,680
	Blackrock Lifepath Index 2040 K (1LIKXK)	Mutual Fund	**	1,287,762
	Putnam Stable Value Fund (1PCSV50)	Common Collective Trust	**	1,253,019
	Janus Henderson Enterprise Funds S (1JGRTX1)	Mutual Fund	**	1,090,802
	Undiscovered Mgrs Behavioral Value R6 (1UBVFX)	Mutual Fund	**	1,013,535
	John Hancock Bond Fund Class R6 (1JHBSX)	Mutual Fund	**	912,725
	Blackrock Lifepath Index Retirement K (1LIRKX)	Mutual Fund	**	847,901
	Blackrock Lifepath Index 2060 K (1LIZKX)	Mutual Fund	**	804,637
	Fidelity Small Cap Index Fund (1FSSNX)	Mutual Fund	**	753,376
	Fidelity Total International Index Fund (1FTIHX)	Mutual Fund	**	435,929
	Allspring Special Mid Cap Value A (1WFPAX)	Mutual Fund	**	376,897
*	Empower International Value Inv (1MX-IEF)	Mutual Fund	**	362,202
	PIMCO Stocksplus Small A (1PCKAX)	Mutual Fund	**	330,630
	American Funds EuroPacific Growth Fund Class R-6 (1RERGX)	Mutual Fund	**	285,186
	Clearbridge Small Cap Growth A (1SASMX)	Mutual Fund	**	222,508
	Blackrock Lifepath Index 2065 K (1LIWKX)	Mutual Fund	**	188,309
	Vanguard GNMA Admiral Shares (1VFIJX)	Mutual Fund	**	141,284
	Lord Abbett High Yield R4 (1LHYSX)	Mutual Fund	**	108,875
*	Notes Receivable from Participants	Interest rates ranging from 4.25% to 9.50%, maturity dates through July 2038	-	663,503
				<u>\$ 33,382,488</u>
*	Party-In-Interest			
**	The cost of participant-directed investments is not required to be disclosed.			

Form 5500Department of the Treasury
Internal Revenue ServiceDepartment of Labor
Employee Benefits Security
Administration

Pension Benefit Guaranty Corporation

Annual Return/Report of Employee Benefit Plan

This form is required to be filed for employee benefit plans under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA) and sections 6057(b) and 6058(a) of the Internal Revenue Code (the Code).

▶ **Complete all entries in accordance with the instructions to the Form 5500.**OMB Nos. 1210-0110
1210-0089**2023****This Form is Open to Public Inspection****Part I Annual Report Identification Information**

For calendar plan year 2023 or fiscal plan year beginning 01/01/2023 and ending 12/31/2023

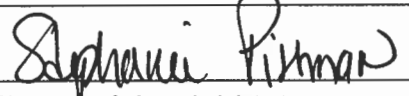
- A** This return/report is for: ☐ a multiemployer plan ☐ a multiple-employer plan (Filers checking this box must provide participating employer information in accordance with the form instructions.)
- ☒ a single-employer plan ☐ a DFE (specify) _____
- B** This return/report is: ☐ the first return/report ☐ the final return/report
- ☐ an amended return/report ☐ a short plan year return/report (less than 12 months)
- C** If the plan is a collectively-bargained plan, check here. ☐
- D** Check box if filing under: ☒ Form 5558 ☐ automatic extension ☐ the DFVC program
- ☐ special extension (enter description) _____
- E** If this is a retroactively adopted plan permitted by SECURE Act section 201, check here. ☐

Part II Basic Plan Information—enter all requested information

1a Name of plan Aspen Aerogels, Inc. 401(k) Plan	1b Three-digit plan number (PN) ▶ 001
	1c Effective date of plan 05/01/2005
2a Plan sponsor's name (employer, if for a single-employer plan) Mailing address (include room, apt., suite no. and street, or P.O. Box) City or town, state or province, country, and ZIP or foreign postal code (if foreign, see instructions) Aspen Aerogels, Inc. 30 Forbes Road, Building B Northborough, MA 01532	2b Employer Identification Number (EIN) 04-3559972
	2c Plan Sponsor's telephone number (508) 691-1187
	2d Business code (see instructions) 339900

Caution: A penalty for the late or incomplete filing of this return/report will be assessed unless reasonable cause is established.

Under penalties of perjury and other penalties set forth in the instructions, I declare that I have examined this return/report, including accompanying schedules, statements and attachments, as well as the electronic version of this return/report, and to the best of my knowledge and belief, it is true, correct, and complete.

SIGN HERE		10/7/2024	Stephanie Pittman
	Signature of plan administrator	Date	Enter name of individual signing as plan administrator
SIGN HERE			
	Signature of employer/plan sponsor	Date	Enter name of individual signing as employer or plan sponsor
SIGN HERE			
	Signature of DFE	Date	Enter name of individual signing as DFE

For Paperwork Reduction Act Notice, see the Instructions for Form 5500.

**Form 5500 (2023)
v. 230728**

3a Plan administrator's name and address ☒ Same as Plan Sponsor	3b Administrator's EIN 3c Administrator's telephone number
4 If the name and/or EIN of the plan sponsor or the plan name has changed since the last return/report filed for this plan, enter the plan sponsor's name, EIN, the plan name and the plan number from the last return/report: a Sponsor's name c Plan Name	4b EIN 4d PN
5 Total number of participants at the beginning of the plan year	5 587
6 Number of participants as of the end of the plan year unless otherwise stated (welfare plans complete only lines 6a(1) , 6a(2) , 6b , 6c , and 6d). a(1) Total number of active participants at the beginning of the plan year a(2) Total number of active participants at the end of the plan year b Retired or separated participants receiving benefits c Other retired or separated participants entitled to future benefits d Subtotal. Add lines 6a(2) , 6b , and 6c e Deceased participants whose beneficiaries are receiving or are entitled to receive benefits f Total. Add lines 6d and 6e g(1) Number of participants with account balances as of the beginning of the plan year (only defined contribution plans complete this item) g(2) Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item) h Number of participants who terminated employment during the plan year with accrued benefits that were less than 100% vested	6a(1) 507 6a(2) 517 6b 6 6c 103 6d 626 6e 0 6f 626 6g(1) 563 6g(2) 609 6h 59
7 Enter the total number of employers obligated to contribute to the plan (only multiemployer plans complete this item).....	7
8a If the plan provides pension benefits, enter the applicable pension feature codes from the List of Plan Characteristics Codes in the instructions: 2E 2F 2G 2J 2K 2S 2T 3D 3H b If the plan provides welfare benefits, enter the applicable welfare feature codes from the List of Plan Characteristics Codes in the instructions:	

9a Plan funding arrangement (check all that apply) (1) ☐ Insurance (2) ☐ Code section 412(e)(3) insurance contracts (3) ☒ Trust (4) ☐ General assets of the sponsor	9b Plan benefit arrangement (check all that apply) (1) ☐ Insurance (2) ☐ Code section 412(e)(3) insurance contracts (3) ☒ Trust (4) ☐ General assets of the sponsor
10 Check all applicable boxes in 10a and 10b to indicate which schedules are attached, and, where indicated, enter the number attached. (See instructions)	
a Pension Schedules (1) ☒ R (Retirement Plan Information) (2) ☐ MB (Multiemployer Defined Benefit Plan and Certain Money Purchase Plan Actuarial Information) - signed by the plan actuary (3) ☐ SB (Single-Employer Defined Benefit Plan Actuarial Information) - signed by the plan actuary (4) ☐ DCG (Individual Plan Information) – Number Attached _____ (5) ☐ MEP (Multiple-Employer Retirement Plan Information)	b General Schedules (1) ☒ H (Financial Information) (2) ☐ I (Financial Information – Small Plan) (3) ☐ A (Insurance Information) – Number Attached _____ (4) ☒ C (Service Provider Information) (5) ☒ D (DFE/Participating Plan Information) (6) ☐ G (Financial Transaction Schedules)

Part III Form M-1 Compliance Information (to be completed by welfare benefit plans)

11a If the plan provides welfare benefits, was the plan subject to the Form M-1 filing requirements during the plan year? (See instructions and 29 CFR 2520.101-2.) ☐ Yes ☐ No

If "Yes" is checked, complete lines 11b and 11c.

11b Is the plan currently in compliance with the Form M-1 filing requirements? (See instructions and 29 CFR 2520.101-2.) ☐ Yes ☐ No

11c Enter the Receipt Confirmation Code for the 2023 Form M-1 annual report. If the plan was not required to file the 2023 Form M-1 annual report, enter the Receipt Confirmation Code for the most recent Form M-1 that was required to be filed under the Form M-1 filing requirements. (Failure to enter a valid Receipt Confirmation Code will subject the Form 5500 filing to rejection as incomplete.)

Receipt Confirmation Code _____

ASPEN AEROGELS, INC. 401(K) PLAN
(PLAN NO. 001, EIN: 04-3559972)

Form 5500, Schedule H, Part IV, Line 4i - Schedule of Assets Held at End of Year
December 31, 2023

(a)	(b)	(c)	(d)	(e)
Party-In-Interest	Identity of Issue, Borrower, Lessor, or Similar Party	Description of Investment including Maturity Date, Rate of Interest, Collateral, Par, or Maturity Value	Cost	Current Value
	Fidelity 500 Index Fund (1FXAIX)	Mutual Fund	**	\$ 3,883,345
	Putnam Growth Opportunities A (1POGAX)	Mutual Fund	**	2,931,749
	Blackrock Lifepath Index 2025 K (1LIBKX)	Mutual Fund	**	2,304,874
	Blackrock Lifepath Index 2030 K (1LINKX)	Mutual Fund	**	2,186,094
	Blackrock Lifepath Index 2045 K (1LIHKX)	Mutual Fund	**	2,045,745
	Blackrock Lifepath Index 2035 K (1LIJKX)	Mutual Fund	**	2,017,880
	Putnam Large Cap Value A (1PEYAX)	Mutual Fund	**	1,850,937
	Blackrock Lifepath Index 2050 K (1LIPKX)	Mutual Fund	**	1,826,663
	Blackrock Lifepath Index 2055 K (1LIVKX)	Mutual Fund	**	1,723,441
	Fidelity Mid Cap Index Fund (1FSMDX)	Mutual Fund	**	1,532,680
	Blackrock Lifepath Index 2040 K (1LIKXK)	Mutual Fund	**	1,287,762
	Putnam Stable Value Fund (1PCSV50)	Common Collective Trust	**	1,253,019
	Janus Henderson Enterprise Funds S (1JGRTX1)	Mutual Fund	**	1,090,802
	Undiscovered Mgrs Behavioral Value R6 (1UBVFX)	Mutual Fund	**	1,013,535
	John Hancock Bond Fund Class R6 (1JHBSX)	Mutual Fund	**	912,725
	Blackrock Lifepath Index Retirement K (1LIRKX)	Mutual Fund	**	847,901
	Blackrock Lifepath Index 2060 K (1LIZKX)	Mutual Fund	**	804,637
	Fidelity Small Cap Index Fund (1FSSNX)	Mutual Fund	**	753,376
	Fidelity Total International Index Fund (1FTIHX)	Mutual Fund	**	435,929
	Allspring Special Mid Cap Value A (1WFPAX)	Mutual Fund	**	376,897
*	Empower International Value Inv (1MX-IEF)	Mutual Fund	**	362,202
	PIMCO Stocksplus Small A (1PCKAX)	Mutual Fund	**	330,630
	American Funds EuroPacific Growth Fund Class R-6 (1RERGX)	Mutual Fund	**	285,186
	Clearbridge Small Cap Growth A (1SASMX)	Mutual Fund	**	222,508
	Blackrock Lifepath Index 2065 K (1LIWKX)	Mutual Fund	**	188,309
	Vanguard GNMA Admiral Shares (1VFIJX)	Mutual Fund	**	141,284
	Lord Abbett High Yield R4 (1LHYSX)	Mutual Fund	**	108,875
*	Notes Receivable from Participants	Interest rates ranging from 4.25% to 9.50%, maturity dates through July 2038	-	663,503
				<u>\$ 33,382,488</u>
*	Party-In-Interest			
**	The cost of participant-directed investments is not required to be disclosed.			