UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

FITESA SIMPSONVILLE, INC.,
Petitioner

v.

THE PROCTER & GAMBLE COMPANY,
Patent Owner.

Case IPR2023-01451
Patent 11,326,276

PATENT OWNER PRELIMINARY RESPONSE

TABLE OF CONTENTS

Page

I. INTRODUCTION 1

II. FAMILY HISTORY OF THE CHALLENGED PATENT 4

A. The '276 Patent 4

B. Prosecution of the '276 Patent 10

C. The Level of Ordinary Skill in the Art 17

III. THE BOARD SHOULD EXERCISE ITS DISCRETION TO DENY INTER PARTES REVIEW 17

A. Legal Framework of 35 U.S.C. § 325(d) Discretion 18

B. Petitioner Relies on Substantially the Same Prior Art Disclosures and Arguments the Examiner Evaluated During Prosecution — (*Becton* Factors (a), (b), and (d)) 20

1. The Asserted Prior Art Disclosures and the Prior Art Disclosures Evaluated During Prosecution Are Similar and Not Materially Different — (*Becton* Factor (a)) 20

2. The Asserted Prior Art Disclosures Are Cumulative of the Prior Art Disclosures Evaluated During Prosecution — (*Becton* Factor (b)) 38

3. The Examiner's Positions Applicant Overcame During Prosecution Overlap with the Petitioner's Reliance on the Prior Art Disclosures — (*Becton* Factor (d)) 40

C. Petitioner Has Not Demonstrated the Examiner Erred in a Manner Material to Patentability — (*Becton* Factors (c), (e), and (f)) 42

1. The Asserted Prior Art Disclosures Were Evaluated During Prosecution — (*Becton* Factor (c)) 43

TABLE OF CONTENTS
(*Continued*)

Page(s)

2. Petitioner Has Not Sufficiently Pointed Out How the Examiner Erred in Evaluating the Prior Art Disclosures — (*Becton* factor (e)) 43

3. Petitioner Presents No Additional Evidence or Facts Warranting the Board's Reconsideration — (*Becton* Factor (f)) 45

IV. PETITIONER HAS NOT SHOWN IT IS REASONABLY LIKELY TO PREVAIL ON GROUND 1, ALLEGING ANTICIPATION 46

V. PETITIONER HAS NOT SHOWN IT IS REASONABLY LIKELY TO PREVAIL ON GROUNDS 2 THROUGH 7, ALLEGING OBVIOUSNESS.....48

VI. CONCLUSION.....52

* Unless specified otherwise, all emphases in quotes and colored annotations in reproduced figures are added.

TABLE OF AUTHORITIES

Page(s)

Cases

Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH,
IPR2019-01469, Paper 6 (PTAB Feb. 13, 2020) 18, 19, 20, 21, 36, 37, 42

Apotex Inc. v. Auspex Pharms., Inc.,
IPR2021-01507, Paper 9 (PTAB Mar. 9, 2022)..... 21, 35

Becton, Dickinson & Co. v. B. Braun Melsungen AG,
IPR2017-01586, Paper 8 (PTAB Dec. 15, 2017)..... 19, 34, 37

Brown & Williamson Tobacco Corp. v. Philip Morris Inc.,
229 F.3d 1120 (Fed. Cir. 2000) 49, 50

Elekta Ltd. v. Zap Surgical Sys., Inc.,
81 F.4th 1368 (Fed. Cir. 2023) 50

Eli Lilly & Co. v. Teva Pharms. Int'l GmbH,
8 F.4th 1331 (Fed. Cir. 2021) 50

EMI Group N. Am., Inc. v. Cypress Semiconductor Corp.,
268 F.3d 1342 (Fed. Cir. 2001) 47

Eyenovia, Inc. v. Sydnexis,
IPR2022-00963, Paper 7 (PTAB Nov. 8, 2022).....21

Fellowes, Inc. v. Treefrog Devs., Inc.,
IPR2020-01509, Paper 11 (PTAB Feb. 22, 2021) 21

Google LLC v. Kewazinga Corp.,
IPR2021-00524, Paper 17 (PTAB Aug. 24, 2021)..... 23, 28, 34

Google LLC v. Valtrus Innovations Ltd.,
IPR2022-01197, Paper 18 (PTAB June 13, 2023) 35, 42

Harmonic Inc. v. Avid Tech., Inc.,
815 F.3d 1356 (Fed. Cir. 2016) 17

TABLE OF AUTHORITIES

(*Continued*)

Page(s)

In re Stepan Co.,
868 F.3d 1342 (Fed. Cir. 2017) 48

Intelligent Bio–Systems, Inc. v. Illumina Cambridge Ltd.,
821 F.3d 1359 (Fed. Cir. 2016) 49, 51

Ivantis, Inc. v. Sight Sciences, Inc.,
IPR2022-01529, Paper 16 (PTAB Mar. 21, 2023)..... 21, 35

Ivantis, Inc. v. Sight Sciences, Inc.,
IPR2022-01540, Paper 14 (PTAB Mar. 22, 2023).....45

Microsoft Corp. v. AlmondNet, Inc.,
IPR2022-01319, Paper 9 (PTAB Jan. 30, 2023) 35

Microsoft Corp. v. IPA Techs., Inc.,
IPR2019-00840, Paper 9 (PTAB Nov. 12, 2019).....34

Ocado Grp. PLC v. Autostore Tech. AS,
IPR2021-00412, Paper 9 (PTAB July 21, 2021).....21

R.J. Reynolds Vapor Co. v. Fontem Holdings 1 B.V.,
IPR2018-00632, Paper 9 (PTAB Sept. 28, 2018) 34

Richardson v. Suzuki Motor Co.,
868 F.2d 1226 (Fed. Cir. 1989) 47

Risen (Suzhou) Pharma Tech. Co. v. Alzheon, Inc.,
PGR2022-00051, Paper 14 (PTAB Jan. 13, 2023).....35

Roku, Inc. v. Universal Elecs., Inc.,
IPR2019-01619, Paper 11 (PTAB Apr. 2, 2020) 42, 44

Xerox Corp. v. Bytemark, Inc.,
IPR2022-00624, Paper 9 (PTAB Aug. 24, 2022)..... 47, 50

TABLE OF AUTHORITIES
(*Continued*)

Page(s)

Statutes

35 U.S.C. § 312(a)(3).....51

35 U.S.C. § 314(a).....18

35 U.S.C. § 325.....21

35 U.S.C. § 325(d).....18

Other Authorities

37 C.F.R. § 42.4(a).....18

M.P.E.P. § 609.....34

M.P.E.P. § 609.02 (9th ed., Rev. 07.2015, Nov. 2015).....34

TABLE OF CITED EXHIBITS

Exhibit	Description
1001	U.S. Patent No. 11,326,276
1002	U.S. Patent No. 6,013,223 ("Schwarz '223")
1003	Int'l Publ. No. WO 00/029658 ("McDowall")
1004	U.S. Patent Appl. Publ. No. 2003/0211802 ("Keck")
1005	U.S. Patent No. 5,476,616 ("Schwarz '616")
1006	U.S. Patent No. 6,783,854 ("Bond '854")
1007	U.S. Patent No. 4,100,324 ("Anderson")
1013	File History U.S. Patent No. 8,852,474
1015	Declaration of Gajanan S. Bhat, Ph.D.
1018	U.S. Patent No. 6,114,017 ("Fabbricante")
1028	File History of U.S. Patent No. 11,326,276
1029	U.S. Patent Appl. Publ. No. 2007/0202766 ("Ouellette")
2001	U.S. Patent No. 8,852,474 B2
2002	M.P.E.P. § 609.02 (9th ed., Rev. 07.2015, Nov. 2015)
2004	U.S. Patent Appl. Publ. No. 2004/0096656 ("Bond '656")
2005	U.S. Patent No. 10,513,801 B2
2006	U.S. Patent No. 5,948,710 ("Pomplun")
2007	Excerpt of File History of U.S. Patent No. 10,513,801 B2

I. INTRODUCTION

The Board should deny the Petition for inter partes review of U.S. Patent No. 11,326,276 ("the '276 patent," Ex. 1001). Generally, the patent claims a co-form process that uses a particular type of multifilament die to produce a fibrous product. The recited die contains a particular arrangement of filament-forming and fluid-releasing holes. Through multiple, redundant grounds, the Petition presents a *single* combination of prior art disclosures—cumulative to what the Patent Office already considered—to argue the independent claims are unpatentable. Common to these grounds are (a) a disclosure of a co-form process using a knife-edge die, and (b) a separate disclosure of a *non*-co-form process using a *non*-knife-edge die. Each disclosure appears in multiple, different prior art documents the Petition identifies. But the examiner fully understood and appreciated these types of disclosures. Indeed, during prosecution he initially rejected pending claims (and later withdrew the rejections) over a cumulative combination of references.

The Petition explains that prosecution of the application for the '276 patent included prior art-based rejections and minor amendments. Pet. at 9–11. But the Petition does not explain what the examiner asserted the prior art disclosed or that the examiner rejected the claims based on obviousness-type double patenting over earlier issued claims in the family. The Petition therefore does not present details that demonstrate the examiner's consideration of some of the same prior art or

cumulative art asserted in Grounds 2 through 7—either during prosecution of the '276 patent or one or more of the priority patents. *Id*. at 11–13. As a result, the Petition does little more than combine the same types of disclosures again, through multiple, materially indistinguishable grounds.

The Board should exercise its discretion, under 35 U.S.C. § 325(d), to deny the Petition. Earlier Board decisions applying § 325(d) did not limit the inquiry to the prosecution of just the challenged patent but looked to what prior art disclosures and arguments were addressed during prosecution of priority patents. By following that approach here, the Board will find that the examiner considered substantially the same prior art disclosures and combinations and did not materially err in issuing the challenged claims.

With respect to Ground 1, which asserts that a prior art publication anticipates both independent claims, the Petition does not demonstrate disclosure in that publication of the first recited step in both claims. Instead, for supporting disclosure, the Petition cites only the testimony of its expert witness. The testimony also cites no disclosure in the asserted publication. Because the publication does not disclose this feature and the Petition makes no attempt to show such disclosure in the publication, there is no reasonable likelihood the petitioner would prevail with respect to any challenged claim in Ground 1.

With respect to the six remaining grounds, which challenge claims as obvious, the Petition does not demonstrate a reasonable likelihood the petitioner would prevail with respect to any challenged claim. Specifically, across four grounds, the Petition argues that the patent's two independent claims are obvious. But none of these grounds identifies any reliable evidence on which the Board could find that a person having ordinary skill in the art would have had a reasonable expectation of success in combining the prior art. The remaining two grounds challenge only dependent claims and rely on the Board finding the independent claims are obvious. Because the Petition presents no reliable evidence of a reasonable expectation of success, there is no reasonable likelihood the petitioner would prevail with respect to any challenged claim.

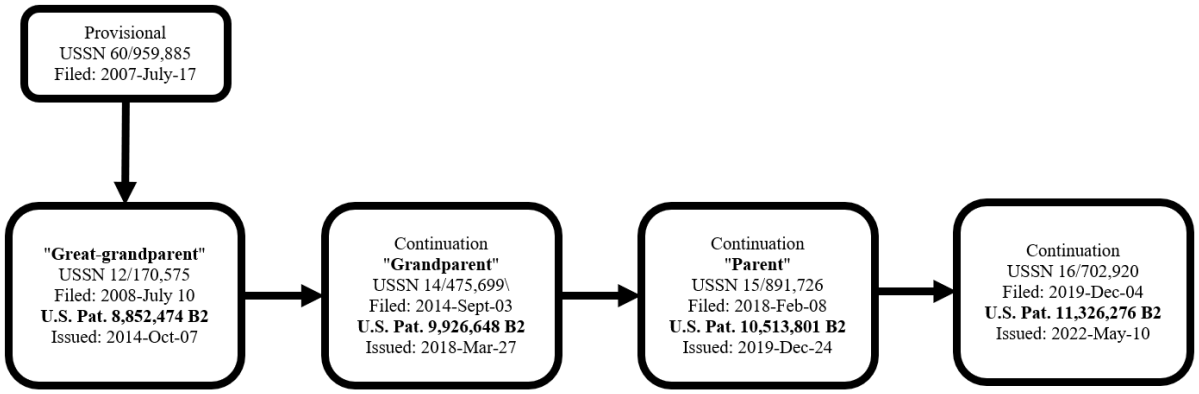
Under these circumstances, the Petition should be denied.

* * * *

II. FAMILY HISTORY OF THE CHALLENGED PATENT

The ’276 patent is the fourth patent to issue in a family that claims the benefit of priority to a provisional application filed in 2007. The relationship of these three patents and the provisional application are shown below.

Figure A



The great-grandparent application issued as the ’474 patent. A continuation of the great-grandparent issued as the ’648 patent (“grandparent”). In turn, a continuation of the grandparent issued as the ’801 patent (“parent”). Thereafter, a continuation of the parent ’801 patent issued as the ’276 patent. As explained below, prosecution of the claims issuing in the parent ’801 and great-grandparent ’474 patents is relevant.

A. The ’276 Patent

The specification of the ’276 patent discloses a process of making fibrous structures (products). Examples of the products include paper, fabrics, and

absorbent pads, like diapers or feminine hygiene products. Ex. 1001 ('276 patent) at 3:17–25.

The specification also describes an exemplary "co-form" process for making these products, referencing Figure 10:

> The process shown in FIG. 10 comprises the step of mixing a plurality of solid additives *14* with a plurality of filaments *12*. … The solid additives *14* may be combined with the filaments *12*, such as by being delivered to a stream of filaments *12* from a hammermill *66* via a solid additive spreader *67* to form a mixture of filaments *12* and solid additives *14*. The filaments *12* may be created by meltblowing from a meltblow die *68*. The mixture of solid additives *14* and filaments *12* are collected on a collection device, such as a belt *70* to form a fibrous structure *72*.

Id. at 13:30–42. Figure 10 is reproduced below with text annotations mirroring the above quoted description.

Figure B (Fig. 10 of '276 Patent)

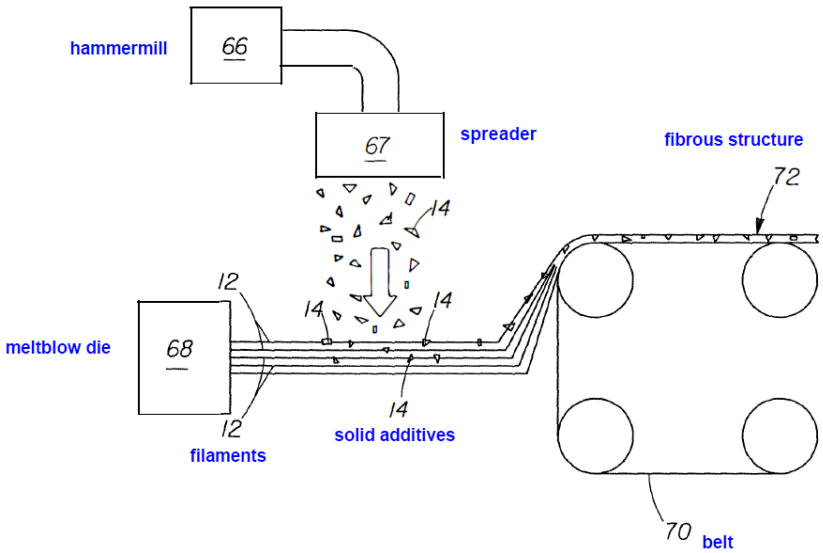


Fig. 10

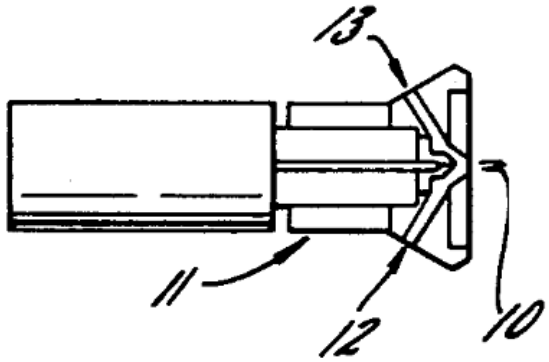
The produced structure is a mixture of two different materials, which the patent calls a "[c]o-formed fibrous structure." *Id.* at 3:50–58; *see also*, *id.* at 13:30–42, Fig. 10 (filaments *12* and solid additives *14*).

As explained in the specification's background, known co-form processes use a "knife-edge die" having filament-forming holes. In those processes, air contacts the filaments exiting the holes at angles of 30° to less than 90°. *Id*. at 1:21–31. An exemplary knife-edge die is described and shown in a patent assigned to the Kimberly-Clark Corporation, U.S. Patent No. 4,100,324 (to Anderson, Ex. 1007):

> Turning now to the drawings and referring first to FIG. 1, a primary gas stream *10* containing discontinuous polymeric microfibers is formed by a known melt-blowing technique, such as the one described in … U.S. Pat. No. 3,676,242 …. Basically, the method of formation involves extruding a molten polymeric material through a die head *11* into fine streams and attenuating the streams by converging flows of high velocity, heated gas (usually air) supplied from nozzles *12* and *13* to break the polymer streams into discontinuous microfibers of small diameter. The die head preferably includes at least one straight row of extrusion apertures.

Ex. 1007 at 2:28–45; *see also*, Ex. 1015 (Bhat Decl.) at ¶ 29 ("The meltblown die head described in Anderson is well-known and is often referred to as a 'knife-edge' die."). As shown in Anderson's Figure 1, the relevant portion of which is reproduced below, the heated gas streams *12*, *13*, converge to contact the microfiber stream *10* at a readily noticeable angle.

Figure C (Anderson Fig. 1 (portion))



An identical knife-edge die is shown in Figure 1 of another Kimberly-Clark Corporation patent discussed below (U.S. Patent No. 5,948,710, "Pomplun," Ex. 2006). The co-form product made by this known process, however, lacks desirable absorbency properties. Ex. 1001 at 1:32–38.

As an improvement, the inventive co-form process uses a different die. Specifically, the specification of the '276 patent explains that an exemplary die includes filament-forming and associated fluid-releasing holes and where the exiting filament and fluid contact each other at an angle of less than 10°:

> In one example of the present invention, the fibrous structures are made using a die comprising at least one filament-forming hole, and/or 2 or more and/or 3 or more rows of filament-forming holes from which filaments are spun. At least one row of holes contains 2 or more and/or 3 or more and/or 10 or more filament-forming holes. In addition to the filament-forming holes, the die comprises fluid-releasing holes, such as gas-releasing holes, in one example air-releasing holes, that provide attenuation to the filaments formed from the filament-forming holes. One or more fluid-releasing holes may be associated with a

> filament-forming hole such that the fluid exiting the fluid-releasing hole is parallel or substantially parallel (rather than angled like a knife-edge die) to an exterior surface of a filament exiting the filament-forming hole. In one example, the fluid exiting the fluid-releasing hole contacts the exterior surface of a filament formed from a filament-forming hole at an angle of less than 30° and/or less than 20° and/or less than 10° and/or less than 5° and/or about 0°.

Id. at 13:48–66. The co-form product made with this die and according to the inventive process was surprisingly found to "exhibit a pore volume distribution unlike pore volume distributions of other known fibrous structures." *Id*. at 7:2–5. Pore volume distribution is a "distribution of fluid holding void volume as a function of pore radius," *id*. at 6:50–54, and accordingly an objective metric in assessing a product's fluid absorbency. Comparative pore volume distributions are reported in Table 1 of the '276 patent. *Id*. at 11:11–49; *see also*, *id*. at 13:10–25 (reporting additional comparative data for other properties).

The '276 patent's two independent claims recite the inventive process.

Table A

Claim 1 of '276 Patent	**Claim 24 of '276 Patent**
A process for making a fibrous structure, the process comprising the steps of:	A process for making a fibrous structure, the process comprising the steps of:
a. providing a die comprising three or more rows of three or more filament-forming holes;	a. providing a die comprising three or more rows of three or more filament-forming holes;

Claim 1 of ’276 Patent	Claim 24 of ’276 Patent
b. supplying at least a first polymer to the die;	b. supplying a polyolefin polymer to the die;
c. producing a plurality of filaments comprising the first polymer from the die;	c. producing a plurality of filaments comprising the polyolefin polymer from the die;
d. combining the filaments with solid additives to form a mixture; and	d. combining the filaments with wood pulp fibers to form a mixture; and
e. collecting the mixture on a belt to produce a fibrous structure.	e. collecting the mixture on a belt to produce a fibrous structure.

Ex. 1001 at 21: 37–47, 22:50–60.

As previously explained, the produced structure is a mixture of two different materials, which the patent calls a “[c]o-formed fibrous structure.” Ex. 1001 at 3:50–58; *see also*, *id.* at 13:30–42, Fig. 10 (filaments *12* and solid additives *14*). The claimed process is therefore referred to herein by the shorthand term “a co-form process.” A co-form process is distinguished from a fibrous structure manufacturing process that does not include a second material mixed with the polymer filament—a non-co-form process.

As also explained above, the claimed process uses a die, as recited in step (a) of each independent claim, distinguished from knife-edge dies. The claimed die is one design of a non-knife-edge die.

B. Prosecution of the ’276 Patent

The ’276 patent issued May 10, 2022, from U.S. patent application No. 16/702,920 (the “’920 application”) filed December 4, 2019. As summarized in Figure A, above, this application is the third continuation in a family that claims the benefit of priority to a provisional application filed in 2007. All three continuation patents have the same specification text as that of the great-grandparent ’474 patent.

During prosecution of the ’276 patent, the applicant identified all Patent Office actions in the earlier patents in the family. Ex. 1028 at 214 (referencing in Cite No. 260 “All Office Actions in U.S. Application Serial Nos. … 12/170,575 ([great-grandparent]), 14/475,699 ([grandparent], 15/891,726 ([parent])”). Even though the examiner appears to have lined this entry out, *see id.* at 206, all of these actions appear among the references cited on the face of the ’276 patent. Ex. 1001 at 3 (“Other Publications”). As explained below, the examiner (Examiner Leo B. Tentoni) was familiar enough with each of these applications and the cited Office Actions because he was the one who examined these applications and issued those Office Actions.

Double-patenting Rejections: Prosecution of the ’276 patent included rejections for obviousness-type double patenting over claims that issued in the earlier parent ’801 and great-grandparent ’474 patents. Claim 1 of the ’920 application

and Claim 1 of the ’474 patent are reproduced in Table B, below, with bold-italicized emphases denoting the differences.

Table B

Claim 1 of ’920 Application	**Claim 1 of ’474 Patent**
A process for making a fibrous structure, the process comprising the steps of:	A process for making a fibrous structure, the process comprising the steps of:
a. providing a die comprising ***three or more rows of*** one or more filament-forming holes;	a. providing a die comprising one or more filament-forming holes, ***wherein one or more fluid-releasing holes are associated with one filament-forming hole such that a fluid exiting the fluid-releasing hole contacts an exterior surface of a filament exiting the filament-forming hole at an angle of less than 30°***;
b. supplying at least a first polymer to the die;	b. supplying at least a first polymer ***comprising a polyolefin*** to the die;
c. producing a plurality of filaments comprising the first polymer from the die;	c. producing a plurality of filaments comprising the first polymer from the die;
	d. supplying a fluid to the die such that the fluid exits the one or more fluid-releasing holes parallel or substantially parallel to the exterior surface of at least one of the filaments;
d. combining the filaments with solid additives to form a mixture; and	e. combining the filaments with solid additives to form a mixture; and

Claim 1 of ’920 Application	Claim 1 of ’474 Patent
e. collecting the mixture on a ***belt*** to produce a fibrous structure.	f. collecting the mixture on a ***collection device*** to produce a fibrous structure.

Compare Ex. 1001 at 21:37–47, *with* Ex. 2001 (’474 patent) at 21:10–29.

The ’920 application and the ’474 patent each includes one additional independent claim where one difference between those two independent claims is similarly the providing step (a). *Compare* Ex. 1001 at 22:52–53 (claim 24, *with* Ex. 2001 at 22:28–33 (claim 18). Dependent claims 4, 5, and 13–23 of the ’276 patent respectively recite the same features as dependent claims 4, 5, and 7–17 of the ’474 patent.

Claim 1 of the ’920 application and Claim 1 of the ’801 patent are reproduced in Table C, below, with bold-italicized emphases denoting the differences.

Table C

Claim 1 of ’920 Application	Claim 1 of ’801 Patent
A process for making a fibrous structure, the process comprising the steps of:	A process for making a fibrous structure, the process comprising the steps of:

Claim 1 of '920 Application	Claim 1 of '801 Patent
a. providing a die comprising ***three or more rows of*** one or more filament-forming holes;	a. providing a die comprising one or more filament-forming holes, ***wherein one or more fluid-releasing holes are associated with one filament-forming hole such that a fluid exiting the fluid-releasing hole contacts an exterior surface of a filament exiting the filament-forming hole at an angle of less than 10°***;
b. supplying at least a first polymer to the die;	b. supplying at least a first polymer to the die;
c. producing a plurality of filaments comprising the first polymer from the die;	c. producing a plurality of filaments comprising the first polymer from the die;
	d. supplying a fluid to the die such that the fluid exits the one or more fluid-releasing holes parallel or substantially parallel to the exterior surface of at least one of the filaments;
d. combining the filaments with solid additives to form a mixture; and	e. combining the filaments with solid additives to form a mixture; and
e. collecting the mixture on a ***belt*** to produce a fibrous structure.	f. collecting the mixture on a ***collection device*** to produce a fibrous structure.

Compare Ex. 1001 at 21:37–47, *with* Ex. 2005 ('801 patent) at 21:26–44.

The '920 application and the '801 patent each includes one additional independent claim where one difference between those two independent claims is

similarly the providing step (a). *Compare* Ex. 1001 at 22:52–53 (claim 24), *with* Ex. 2005 at 22:48–53 (claim 25). Dependent claims 4–9 and 11–23 of the ’276 patent respectively recite the same features as dependent claims 4–11 and 14–24 of the ’801 patent.

Notwithstanding the differences in (a) the independent claims of the ’920 application, (b) the independent claims of the ’474 patent, and (c) the independent claims of the ’801 patent, the examiner (Examiner Leo B. Tentoni) considered the claims in the application for the ’276 patent sufficiently similar to those in the ’474 and ’801 patents to warrant the obviousness-type double patenting rejections. Ex. 1028 at 188–89. In response, the applicant obviated the rejections by submitting a terminal disclaimer. *Id.* at 171–72, 175. Thereafter, the examiner withdrew the rejections. *Id.* at 157.

Prior Art Rejections: The ’920 application claims also were rejected over prior art publications. These rejections were overcome by argument and minor amendments to the independent claims. But the prosecution is nonetheless relevant because it shows the examiner applied the *same* combination of prior art disclosures that the petition presents in Ground 2 through 7.

In an April 2021 action, Examiner Tentoni rejected the application claims as obvious over the combination of co-form process patents, U.S. Patent No. 4,100,324 (to Anderson, Ex. 1007) and U.S. Patent No. 5,948,710 (to Pomplun,

Ex. 2006), and a non-co-form process patent, U.S. Patent No. 5,476,616 (to Schwarz, Ex. 1005). Ex. 1028 at 155–67. According to the examiner, Anderson discloses all steps of the ’920 application claim 1 (reproduced, for example, in Table C, above), except the die recited in step (a) and collecting the mixture on a belt, as recited in step (e). Schwarz ’616 teaches, according to the examiner, a “die [that] includes three or more rows (of one or more filament-forming holes).” *Id*. 158–59. The examiner asserted that step (e) is disclosed in Pomplun, and that it would have been obvious to combine the disclosures in the three patents to arrive at the subject matter recited in the ’920 application’s two independent claims. *Id.*

The rejection was withdrawn in a July 2021 action, where Examiner Tentoni instead rejected the claims as obvious over a combination of the co-form process patent, Pomplun, and non-co-form process patent, Schwarz ’616. *Id*. at 71–82. According to the examiner, Pomplun discloses all features recited in ’920 application claim 1 (reproduced in Table C, above), except the die recited in step (a). *Id*. at 74–75 and 79–80. The examiner asserted that Schwarz ’616 teaches that die, and that it would have been obvious to combine the disclosures in the two patents to arrive at the subject matter recited in the ’920 application’s two independent claims. *Id*.

In response, step (a) of both independent claims was amended to specify each row in the die includes not one but three or more filament forming holes:

> (a) providing a die comprising three or more rows ***three*** or more filament forming holes;

Id. at 52, 55 (bold-italicized emphasis supplied); *see generally*, *id.* at 51–59. These amendments were accompanied by an argument that the Schwarz '616 die cannot merely be substituted for the knife edge die in the co-form Pomplun patent, which die uses converging air to entrain and attenuate the threads:

> Applicants respectfully submit that nowhere does Pomplun teach or suggest a die that contains three or more rows of three or more filament-forming holes where the attenuation air does not converge. Applicants respectfully submit that Pomplun teaches the importance of the converging gas streams to entrain and attenuate its threads. Therefore, Applicants respectfully submit that there is no teaching, suggestion or motivation to modify Pomplun process by replacing Pomplun's die with Schwarz's die. Applicants respectfully submit that Schwarz fails to recognize and/or teach and in fact teaches away from a die that utilizes converging air flows to entrain and attenuate its threads. Therefore, Applicants respectfully submit that the teachings of Pomplun and Schwarz cannot properly be combined to substitute Schwarz's die for Pomplun's die to achieve the claimed invention as claimed in Claim 1, as amended.

Id. at 56–57 (Response dated Oct. 11, 2021); *see also*, *id.* at 34 (Response dated Jan. 7, 2022). This same argument was presented regarding application claim 24. *Id.* at 58–59; *see also*, *id.* at 36.

This prosecution history makes clear the examiner effectively rejected the claims as unpatentable over the combination of (a) a disclosure (in each of Anderson and Pomplun) of a co-form process using a knife-edge die and (b) a separate

disclosure of a non-co-form process using a non-knife-edge die in Schwarz ’616. But the examiner ultimately withdrew these rejections following amendments to the independent claims, as noted above, and the applicant’s arguments that the disclosures were not combinable because the skilled person would not have used the die from Schwarz ’616 in the co-form processes disclosed in Anderson and Pomplun. Having reviewed this response, the examiner allowed the application and the ’276 patent eventually issued. *Id*. at 18–22 (Notice of Allowance dated Jan. 26, 2022), 1 (Issue Notification dated Apr. 20, 2022).

C. The Level of Ordinary Skill in the Art

Neither the Petition nor the declaration (Ex. 1015) on which it relies sets forth any facts that support the petitioner’s proposed level of ordinary skill in the art. For example, the declarant “considered several things” in concluding what level of skill would have been ordinary. Ex. 1015 at ¶ 11. But neither he nor the Petition explains how any of those things, in the context of the claimed invention, support the proposed ordinary skill level. Nevertheless, for the limited purposes of the Board’s consideration of the Petition, the Patent Owner does not contest the Petitioner’s proposed level of ordinary skill in the art.

III. THE BOARD SHOULD EXERCISE ITS DISCRETION TO DENY INTER PARTES REVIEW

Institution of inter partes review is discretionary. *See Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016). The Patent Office may elect to

deny a petition to institute a proceeding if the petitioned challenges to the patent are based on matters the Office previously considered. *Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 at 8 (PTAB Feb. 13, 2020) (precedential). Discretionary denial is appropriate because petitioned Grounds 2 through 7 are based on publications that were of record during prosecution of the '801 patent, or are substantially the same as, or cumulative of, publications the Office considered during prosecution. Further, the Petition does not demonstrate how the examiner erred in evaluating the prior art and combinations thereof or in evaluating arguments the applicant presented. (Ground 1 is addressed in Section IV, below.)

A. Legal Framework of 35 U.S.C. § 325(d) Discretion

The Director has discretion to institute an inter partes review and has delegated that discretion to the Board. *See* 35 U.S.C. § 314(a); *see also* 37 C.F.R. § 42.4(a). In determining whether to institute a trial, the Board "may take into account whether, and reject the petition … because, the same or substantially the same prior art or arguments previously were presented to the Office." 35 U.S.C. § 325(d).

In evaluating whether to exercise this discretion, the Board follows a two-part framework. *First*, the Board determines whether the same or substantially the same art previously was presented to the Office or whether the same or

substantially the same arguments previously were presented to the Office. *Second*, if either of these conditions exists, the Board determines whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims. *Advanced Bionics*, Paper 6 at 8. Within this framework, the Board considers several non-exclusive factors:

> (a) the similarities and material differences between the asserted art and the prior art involved during examination;
>
> (b) the cumulative nature of the asserted art and the prior art evaluated during examination;
>
> (c) the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection;
>
> (d) the extent of the overlap between the arguments made during examination and the manner in which petitioner relies on the prior art or patent owner distinguishes the prior art;
>
> (e) whether petitioner has pointed out sufficiently how the examiner erred in its evaluation of the asserted prior art; and
>
> (f) the extent to which additional evidence and facts presented in the petition warrant reconsideration of the prior art or arguments.

See Becton, Dickinson & Co. v. B. Braun Melsungen AG, IPR2017-01586, Paper 8 at 17–18 (PTAB Dec. 15, 2017) (precedential as to § III.C.5, first para.); *see also*, *Advanced Bionics*, Paper 6 at 9–11. Factors (a), (b), and (d) relate to whether the art or arguments presented in the petition are the same or substantially the same as those previously presented to the Office. *Advanced Bionics*, Paper 6 at 10. Factors

(c), (e), and (f) "relate to whether the petitioner has demonstrated a material error by the Office" in its prior consideration of that art or arguments. *Id.* Only if the same or substantially the same art or arguments were previously presented to the Office will the Board consider whether petitioner has demonstrated a material error by the Office. *Id.* "At bottom, this framework reflects a commitment to defer to previous Office evaluations of the evidence of record unless material error is shown." *Id.* at 9.

B. Petitioner Relies on Substantially the Same Prior Art Disclosures and Arguments the Examiner Evaluated During Prosecution — (*Becton* Factors (a), (b), and (d))

1. The Asserted Prior Art Disclosures and the Prior Art Disclosures Evaluated During Prosecution Are Similar and Not Materially Different — (*Becton* Factor (a))

The following publications supporting one or more of Grounds 2–7 were of record during prosecution of the '276 patent: (a) U.S. Patent No. 5,476,616 ("Schwarz '616," Ex. 1005), (b) U.S. Patent Appl. Publ. No. 2003/0211802 ("Keck," Ex. 1004), (c) U.S. Patent Appl. Publ. No. 2007/0202766 ("Ouellette," Ex. 1018). Schwarz '616 and Ouellette were among the references cited and applied by the examiner in an office action dated January 8, 2021. Ex. 1028 at 202 (Cites B and F). The applicant cited Keck in a September 2021 IDS, which the examiner noted he considered in his November 2021 action. *Id*. at 61 (Cite No. 1); *id*. at 46 (noting in a footer on each IDS page that "ALL REFERENCES

CONSIDERED EXCEPT WHERE LINED THROUGH. /L.B.T/," and lining through none of the publications). All three publications appear in the references cited section of the '276 patent. *See* Ex. 1001, code (56).

Accordingly, these three publications qualify as "prior art … previously … presented to the Office," under § 325. *Advanced Bionics*, Paper 6 at 7–8; *accord Ivantis, Inc. v. Sight Sciences, Inc.*, IPR2022-01529, Paper 16 at 16 (PTAB Mar. 21, 2023); *Eyenovia, Inc. v. Sydnexis*, IPR2022-00963, Paper 7 at 10–11 (PTAB Nov. 8, 2022); *Fellowes, Inc. v. Treefrog Devs., Inc.*, IPR2020-01509, Paper 11 at 7–8, 17 (PTAB Feb. 22, 2021); *Ocado Grp. PLC v. Autostore Tech. AS*, IPR2021-00412, Paper 9 at 34–35 (PTAB July 21, 2021).

There is no requirement for the examiner to have applied any of these publications in a rejection for the publications to have been previously presented to the Office. *Apotex Inc. v. Auspex Pharms., Inc.*, IPR2021-01507, Paper 9 at 25 (PTAB Mar. 9, 2022) ("A reference submitted, but not substantively discussed during prosecution, nonetheless qualifies as prior art previously presented to the Office."). Nevertheless, as explained below, Schwarz '616 (Ex. 1005) and Ouellette (Ex. 1018) were applied in rejections the applicant overcame. *See* Subsections (a) and (d), below.

The Petition relies on substantially the same prior art disclosures and combinations thereof that the examiner considered during prosecution.

(a) The Examiner Was Aware of Both Schwarz Patents

Schwarz '616: Ground 3 relies on disclosures in Schwarz '616 (Ex. 1005) to challenge the independent claims of the '276 patent. During prosecution, the examiner applied and rejected the independent claims over Schwarz '616 four times. Ex. 1028 at 189–202 (Office Action dated Jan. 8, 2021), 155–67 (Office Action dated Apr. 16, 2021), 71–82 (Office Action dated July 9, 2021), 37–43 (Office Action dated Nov. 9, 2021). The applicant overcame the rejections where the examiner was combining the die disclosures in Schwarz '616 with disclosures in the co-form patents (Anderson and Pomplun). *See* Section II.B, above.

The same examiner also evaluated the applications for both the great-grandparent '474 patent and the '276 patent. *Compare* Ex. 2001 ('474 Patent) at Cover Page ("Primary Examiner—Leo B. Tentoni"), *with* Ex. 1001 ('276 patent) at Cover Page ("Primary Examiner—Leo B. Tentoni"). During prosecution of the application for the great-grandparent '474 patent, the examiner rejected application claims as unpatentable over the disclosure in Schwarz '616. Ex. 1013 at 79–82. Specifically, according to the examiner, the Schwarz '616 patent teaches certain die details and that the skilled person would have found it obvious to modify the Anderson (Ex. 1007) die with these features. But the examiner ultimately withdrew the rejections following claim amendments, and the applicant's arguments that the disclosures were not combinable because the skilled person would not have used the

die from Schwarz ’616 in Anderson’s co-form process. *Id*. at 40–51 (applicant’s response). Having reviewed this response, the examiner allowed the application and the ’474 patent eventually issued. *Id*. at 16 (notice of allowance).

During prosecution of the ’276 patent, the examiner rejected broader application claims for obviousness-type double patenting over claims issued in the ’474 patent. That rejection is further evidence the examiner considered Schwarz ’616 and the prosecution of the ’474 patent during prosecution of the ’276 patent. *See Google LLC v. Kewazinga Corp.*, IPR2021-00524, Paper 17 at 11 (PTAB Aug. 24, 2021) (“Google”) (noting similarly that the Examiner considered prosecution of the reference patent when issuing an obviousness-type double patenting rejection). Thus, the examiner was aware of Schwarz ’616 on which petitioned Ground 3 relies.

Schwarz ’223: Grounds 2 and 4 rely on disclosures in another Schwarz patent, U.S. Patent No. 6,013,223 (Ex. 1002), to challenge the same independent claims. The examiner was also aware of Schwarz ’223 because the same examiner examined that patent. Ex. 1002 (cover, “Primary Examiner—Leo B. Tentoni”). He undoubtedly understood all that it claimed and disclosed even if he did not apply it during prosecution of the application for the ’276 patent or the priority applications. Indeed, he likely considered its relevant disclosures to be cumulative to those

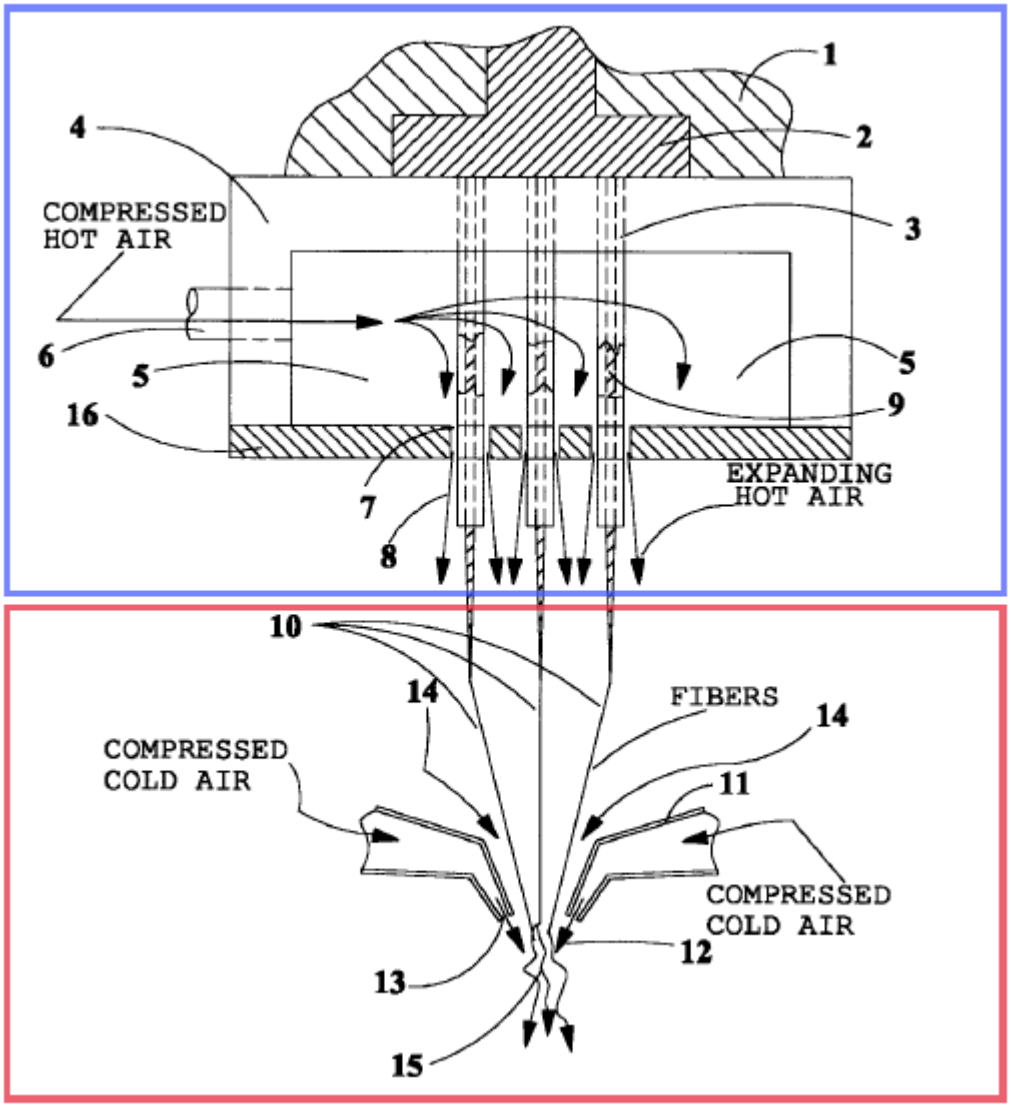
present in Schwarz ’616, which he previously applied. The Petition, in presenting Grounds 2–4, identifies no material differences between the two Schwarz patents.

Schwarz ’223 summarized the difference between its disclosure and that of Schwarz ’616 as the addition of a cooling technique downstream of the die commonly disclosed in both patents:

> This invention relates to a new non-woven and spun-bonded fiber process and apparatus applying multiple rows of spinning nozzles described in U.S. Pat. No. 5,476,616 [Schwarz ’616], which is herewith incorporated by reference. More particularly, it relates to a cooling technique using expanding hot air to introduce a high level of molecular orientation to produce strong filaments.

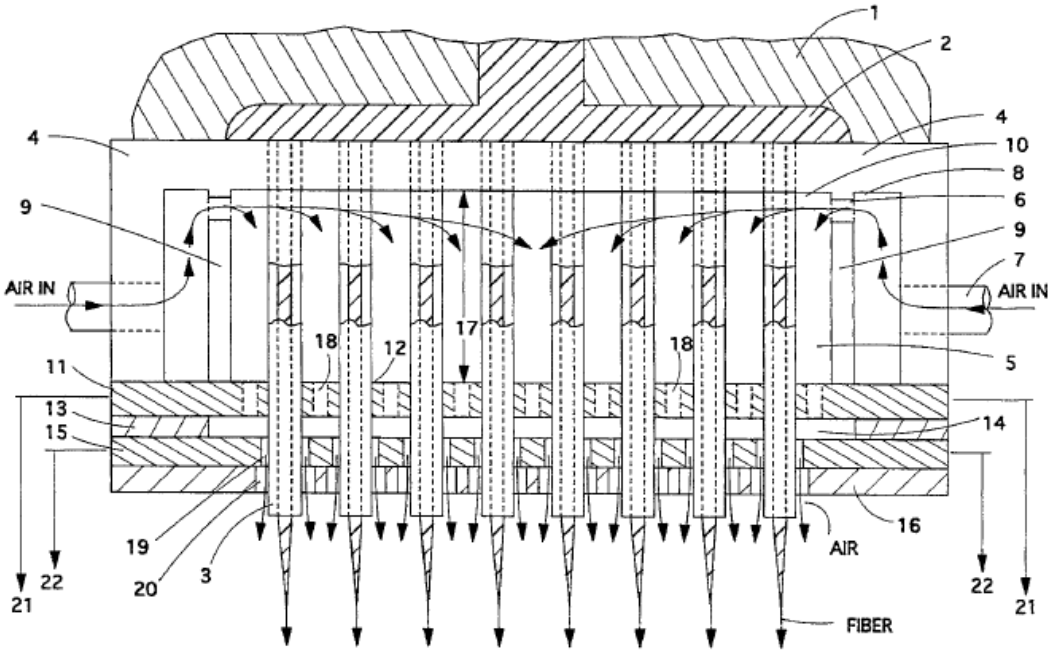
Ex. 1002 at 5–12. The cooling technique is illustrated in the bottom half of Figure 1 of Schwarz ’223, denoted by the red-color box:

Figure D (Fig. 1 of Schwarz ’223)



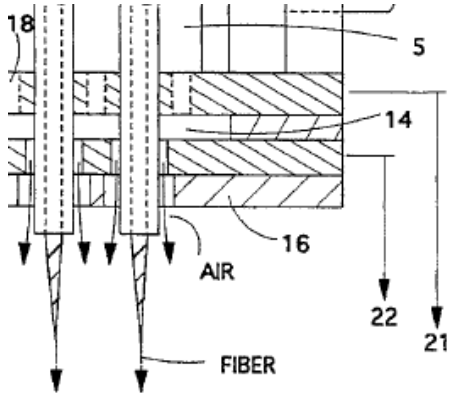
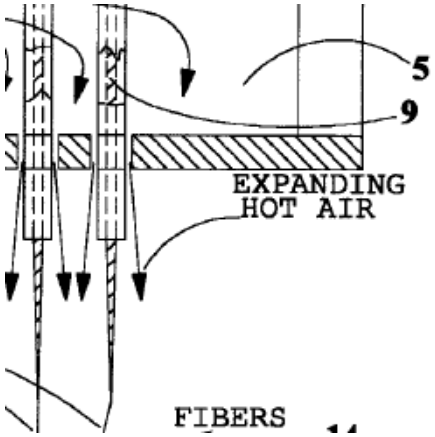
Ex. 1002, Fig. 1. The top half of this figure (denoted by the blue-color box) is materially indistinguishable—as applied in the petitioned grounds—from Figure 1 of Schwarz ’616:

Figure E (Fig. 1 of Schwarz ’616)



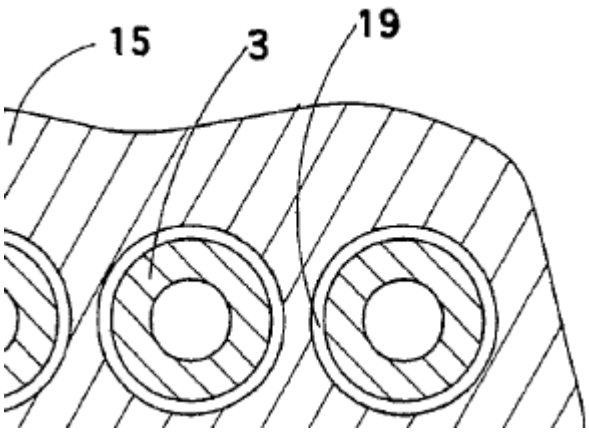
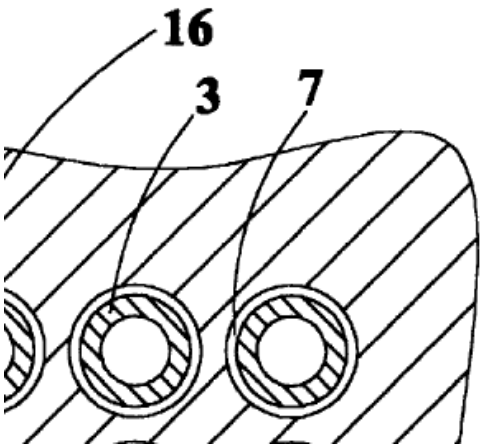
Ex. 1005, Fig. 1. For ease of comparison, below are portions of two figures from each patent illustrating the process and the fiber-forming and fluid-releasing holes expelling the fiber and air, respectively.

Table D

Figure 1 of Schwarz ’616 (portion)	Figure 1 of Schwarz ’223 (portion)
	

Ex. 1005 (Schwarz ’616), Fig. 1; Ex. 1002 (Schwarz ’223), Fig. 1.

Table E

Figure 2A of Schwarz ’616 (portion)	Figure 2 of Schwarz ’223 (portion)
	

Ex. 1005 (Schwarz ’616), Fig. 2A; Ex. 1002 (Schwarz ’223), Fig. 2.

Across the three grounds, the Petition relies on the same substantive disclosures in both Schwarz patents. The two patents, according to the Petition, describe

the same features recited in the independent claims of the ’276 patent. The Petition concedes, however, that both patents fail to disclose the recited co-form step (step (e)) of “combining the filaments with solid additives to form a mixture.”

Table F

Petition (Ground 2)	**Petition (Ground 3)**
Schwarz ’223 explicitly discloses all but one element of independent Claims 1 and 24 of the ’276 Patent. The remaining element – combining the filaments with solid additives (wood pulp) to form a mixture – was well known in the art and would have been obvious to a POSA based on Schwarz’s disclosures in light of the teachings of Keck.	Schwarz ’616 explicitly discloses all but one element of independent claims 1 and 24 of the ’276 Patent. The remaining element – combining the filaments with solid additives (wood pulp) to form a mixture – would have been obvious to a POSA based on Schwarz ’616’s disclosures in light of the teachings of Keck.

Pet. at 44 (Ground 3 applying Schwarz ’616); Pet. at 28 (Ground 2 applying Schwarz ’223) and 54 (Ground 4 applying Schwarz ’223).

Based on the foregoing and apparent from the text of the Schwarz patents cited in these three grounds, *see* Pet. at 28–54, the two Schwarz patents are cumulative of each other. *See Google*, Paper 17 at 10–12 (concluding related patents are substantially similar where the same disclosure in petition reference is found in prosecution reference examiner previously considered).

(b) The Petition Relies on Substantially the Same Purported Disclosures in Keck and McDowall the Examiner Found in Anderson

For each of Grounds 2–4, the Petition also relies on a second publication for its alleged disclosure of a co-form step (step (d)) of combining the filaments with solid additives (e.g., wood pulp fibers) to form a mixture. For Grounds 2 and 3, the Petition relies on U.S. Patent Appl. Publ. No. 2003/0211802 ("Keck," Ex. 1004). For Ground 4, the Petition relies on Int'l Publ. No. WO 00/029658 ("McDowall," Ex. 1003). During prosecution, however, the examiner was already aware of prior art he considered as disclosing the same step (d). For this, the examiner relied on the Anderson patent (Ex. 1007). The purportedly relevant disclosure in all three publications is set forth below.

Table G

Publication	Purported Co-form Disclosure
Anderson (Ex. 1007)	"Turning now to the drawings and referring first to FIG. 1, a primary gas stream *10* containing discontinuous polymeric microfibers is formed by a known melt-blowing technique …. involve[ing] extruding a molten polymeric material through a die head *11* into fine streams and attenuating the streams by converging flows of high velocity, heated gas (usually air) supplied from nozzles *12* and *13* to break the polymer streams into discontinuous microfibers of small diameter. … [T]he primary gas stream *10* is merged with a secondary gas stream containing individualized wood pulp fibers so as to integrate the two different fibrous materials in a single step."

Publication	Purported Co-form Disclosure
Keck (Ex. 1004) cited in Petition, Grounds 2 and 3 Pet. at 31, 47.	"Coform nonwoven webs or coform materials are known in the art and have been used in a wide variety of applications, including wipes. The term "coform material" means a composite material containing a mixture or stabilized matrix of thermoplastic filaments and at least one additional material, often called the "second material" or "secondary material". Examples of the second material include, for example, absorbent fibrous organic materials such as woody and non-wood pulp …."
Portion of **McDowall (Ex. 1003)** cited in Petition, Ground 4. Pet. at 55 (citing Ex. 1003, claim 1, page 4).	"[Claim] 1. An absorbent nonwoven web composite, comprising: [a] a plurality of substantially continuous bicomponent filaments including a first thermoplastic polymer and a second thermoplastic polymer arranged in distinct zones across a cross-section of individual bicomponent filaments; and [b] a plurality of pulp fibers contained within the substantially continuous filaments."

For Grounds 2 and 3, the Petition cites to no portion of Keck but states that co-form was "explicitly disclosed in Keck (and many other prior art references known at the time)." Pet. at 31, 47. The examiner would have agreed that other prior art disclosed co-form processes, insofar as he found that disclosure in Anderson.

The petitioned combinations of one of the Schwarz patents with either of the Keck or McDowall publications in Grounds 2–4 are materially indistinguishable

from the combination of Schwarz ’616 and Anderson that the examiner applied to reject the claims during prosecution—a rejection he later withdrew.

Two other petitioned grounds, Grounds 5 and 7, challenge the patentability of three dependent claims (claims 11, 12, and 20) based in part on the combination of Schwarz ’223 and either Keck or McDowall. But these two grounds rely on the propriety of Grounds 2 and 4, which present the same disclosures as those the examiner considered during prosecution. Ground 7 (challenging dependent claim 20) also relies in part on the combination of Schwarz ’616 and Keck. But that portion of Ground 7 relies on the propriety of Ground 3, which presents the same disclosures as those the examiner considered during prosecution.

(c) The Petition Relies on the Same Disclosure in Bond that Applicants Previously Presented to the Office

Ground 5 also relies on U.S. Patent No. 6,783,854 (“Bond ’854,” Ex. 1006), citing two passages therein as allegedly teaching features recited in dependent claims 11 and 12. Pet. at 59–61. As explained below, both passages are present in another Bond patent publication the applicant previously presented to the examiner. Specifically, during prosecution of the parent application (that issued as the ’801 patent) the applicant cited in its April 2, 2018, IDS: U.S. Patent Appl. Publ. No. 2004/0096656 (“Bond ’656,” Ex. 2004). Ex. 2007 at 1–11 (Cite No. 148 in IDS from file history of ’801 patent). There, the examiner indicated he considered

Bond ’656. *Id.* (noting in a footer on each IDS page that “ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /L.B.T/,” and lining through none of the publications).

Both Bond ’854 passages the Petition cites to support Ground 5 are identically present in the prior art Bond ’656 publication previously presented to the Office:

Table H

Citations	**Cited text in Bond publications**
Petition Ground 5 (at p. 57) cites Ex. 1006 (Bond ’854) at 12:61–13:4. Identical text is in Ex. 2004 (Bond ’656) at ¶ 0097.	The fiber may be made by fiber spinning processes characterized by a high draw down ratio. The draw down ratio is defined as the ratio of the fiber at its maximum diameter (which is typically occurs immediately after exiting the capillary of the spinneret in a conventional spinning process) to the final diameter of the formed fiber. The fiber draw down ratio via either staple, spunbond, or meltblown process will typically be 1.5 or greater, and can be about 5 or greater, about 10 or greater, or about 12 or greater.

Citations	Cited text in Bond publications
Petition Ground 5 (at p. 57) cites Ex. 1006 (Bond '854) at 14:30–45. Identical text is in Ex. 2004 (Bond '656) at ¶ 0107.	The fibers of the present invention may be used to make nonwovens, among other suitable articles. Nonwoven articles are defined as articles that contains greater than 15% of a plurality of fibers that are continuous or non-continuous and physically and/or chemically attached to one another. The nonwoven may be combined with additional nonwovens or films to produce a layered product used either by itself or as a component in a complex combination of other materials, such as a baby diaper or feminine care pad. Preferred articles are disposable, nonwoven articles. The resultant products may find use in one of many different uses. Preferred articles of the present invention include disposable nonwovens for hygiene and medical applications. Hygiene applications include such items as wipes; diapers, particularly the top sheet or back sheet; and feminine pads or products, particularly the top sheet.

The applicant's presentation of Bond '656 to Examiner Tentoni during prosecution of the parent '801 patent, and his consideration of Bond '656 there, qualifies as "prior art … previously … presented to the Office," under § 325 and all of the Board decisions cited in Section III.B.1 at page 21, above.

The prosecution history of the parent '801 patent is relevant to the § 325(d) analysis. The Manual of Patent Examination Procedure effective when the '920 application for the '276 patent was filed explains that examination of a continuation application, like the '276 patent, includes the examiner's reconsideration of information previously considered during prosecution of priority applications. *See*

M.P.E.P. § 609.02 (9th ed., Rev. 07.2015, Nov. 2015) (Ex. 2002). As explained below, the examiner followed this procedure.

Many Board decisions—including the *Becton* decision—undertaking the § 325(d) analysis have considered the prior art disclosures and examiner's rejections overcome during prosecution of a priority patent/application. *See, e.g.*, *Becton*, Paper 8 at 16, 22–23; *accord Google*, Paper 17 at 10–12; *Microsoft Corp. v. IPA Techs., Inc.*, IPR2019-00840, Paper 9 at 15–17 (PTAB Nov. 12, 2019) (citing M.P.E.P. § 609); *R.J. Reynolds Vapor Co. v. Fontem Holdings 1 B.V.*, IPR2018-00632, Paper 9 at 20–21 (PTAB Sept. 28, 2018) (same).

Prosecution of the parent '801 patent is particularly relevant to the § 325(d) analysis for the '276 patent because: (a) both patents were examined by the same examiner (*Compare* Ex. 2005 ('801 Patent) at Cover Page ("Primary Examiner—Leo B. Tentoni"), *with* Ex. 1001 ('276 patent) at Cover Page ("Primary Examiner—Leo B. Tentoni")); and (b) the examiner rejected the '276 patent's application claims for obviousness-type double patenting over the parent '801 patent's claims, and applicant responded with a terminal disclaimer. *See* Section II.B; *see also*, *Becton*, Paper 8 at 23 (finding prosecution of priority patent relevant to § 325(d) analysis of challenged patent because challenged patent was terminally disclaimed over the priority patent, indicating similarity of claim scope between the two patents); *see also*, *Google*, Paper 17 at 10–12. The terminal disclaimer

shows not only that the claims of the ’276 patent are similar in scope to those of the parent ’801 patent but also that the examiner had the latter in mind while examining the ’276 patent.

There is no merit to the petitioner’s contention that the disclosure in Bond ’854 on which Ground 5 relies was not before the examiner or that the disclosure is not cumulative (to the disclosure in Bond ’656). *See* Pet. at 16. Whatever differences there may be in the two Bond publications, the Petition’s cited disclosures in Bond ’854 (as shown above) are *identically present* in Bond ’656. It does not matter that the examiner never applied Bond ’656. There is no requirement for the examiner to have applied the disclosure in a rejection for it to have been previously presented to the Office. *See Apotex*, Paper 9 at 25. The Petition makes no attempt to show the examiner materially erred in considering this disclosure. Pet. at 11–13.

In several recent decisions, the Board has denied institution based on “substantially the same” art having the same disclosures that a petitioner relied on, where the art was cited in an IDS and the Examiner did not materially err in considering the art. *See Google LLC v. Valtrus Innovations Ltd.*, IPR2022-01197, Paper 18 at 19 (PTAB June 13, 2023) (“Valtrus”) (denying institution where substantially similar art was cited in an IDS, but not cited in a claim rejection); *see also Ivantis*, Paper 16 at 16; *Risen (Suzhou) Pharma Tech. Co. v. Alzheon, Inc.*, PGR2022-00051, Paper 14 at 54 (PTAB Jan. 13, 2023) (same); *see also*, *Microsoft*

Corp. v. AlmondNet, Inc., IPR2022-01319, Paper 9 at 10 (PTAB Jan. 30, 2023) (denying institution based on "substantially the same" art cited in an IDS, where petitioner did not allege examiner error). Each of these decisions underscores the Board's "commitment to defer to previous Office evaluations of the evidence of record unless material error is shown." *Advanced Bionics*, Paper 6 at 8–9.

(d) The Examiner Was Aware of Ouellette

Ground 7 challenges the patentability of dependent claim 20, which specifies the produced fibrous structure has a particular pore volume distribution. Pet. at 68–70. In support, the Petition relies on Ouellette (Ex. 1018) as purportedly disclosing the recited features. These same '276 patent claim 20 features are recited in dependent claim 14 of the great-grandparent '474 patent and claim 21 of the parent '801 patent.

Table I

Claim	Text
Claim 20 of '276 patent Ex. 1001, 22:38–42. Claim 14 of '474 patent Ex. 2001 at 22:14–18. Claim 21 of '801 patent Ex. 2005 at 22:34–38.	The process according to claim 1 wherein the fibrous structure exhibits a pore volume distribution such that greater than about 40% of the total pore volume present in the fibrous structure exists in pores of radii of from about 121 μm to about 200 μm.

Dependent claim 14 of the ’474 patent was application claim 19 during prosecution. Ex. 1013 at 19, 24 (showing application claim 19 would issue as patent claim 14). The examiner applied Ouellette to reject that claim. Ex. 1013 at 84–85 (Office Action dated Mar. 13, 2014). The applicant overcame the rejection by persuading the examiner of the patentability of the base claim on which claim 19 depended. *Id.* at 28–37 (May 29, 2014, applicant response), 16 (June 9, 2014, notice of allowability). The examiner was aware of Ouellette.

There is no merit to the petitioner’s contention that Ouellette was not before the examiner or that its disclosure on which Ground 7 relies is not cumulative to what the examiner considered. *See* Pet. at 12. Because the prosecution history of the great-grandparent ’474 parent is relevant to the § 325(d) analysis, and because the same examiner evaluated the claims of the ’474 and ’276 patents, the examiner is deemed to have considered Ouellette in examining the claims he allowed to issue in the ’276 Patent. Numerous Board decisions cited above stand for this proposition, including the Board’s precedential decisions in *Becton*, Paper 8 at 16, 22–23, and *Advanced Bionics*, Paper 6 at 7–8.

* * * *

With respect to all seven grounds, the Petition relies on publications (and/or disclosures therein) that were already considered by the examiner during prosecution of the ’276 patent or prosecution of the priority patents over which the ’276

patent is terminally disclaimed. In some instances, the publications were even applied to reject claims.

Table J

Prior Art	Ground(s)	*Becton* Factor (a)
Schwarz ’616	3, 7	Previously applied by the Office
Schwarz ’223	2, 4, 5, 7	Cumulative to Schwarz ’616
Keck	2, 3, 5, 6, 7	Previously presented to the Office
McDowall	1, 4, 5, 7	Cumulative to Keck and Anderson
Bond	5	Previously presented to the Office
Ouellette	7	Previously applied by the Office

Becton factor (a) therefore weighs in favor of denying institution.

2. The Asserted Prior Art Disclosures Are Cumulative of the Prior Art Disclosures Evaluated During Prosecution — (*Becton* Factor (b))

Ground 6 relies on a combination of Keck (Ex. 1004) and U.S. Patent No. 6,114,017 (“Fabbricante,” Ex. 1018). But the disclosures in each are similarly no different than those—Anderson and Schwarz ’616—the examiner considered during prosecution.

The examiner relied on Anderson as disclosing all features of the broader application claims except the die in step (a). *See* Section II.B, above. Ground 6 relies on Keck for these same teachings:

> Keck explicitly discloses all but one element of independent Claims 1 and 24 of the '276 Patent. The remaining element – providing a die comprising three or more rows of three or more filament-forming holes – was well known in the art and would have been obvious to a POSA based on Keck's disclosures in light of the teachings of Fabbricante.

Pet. at 62.

In four Office Actions, the examiner also relied on Schwarz '616 as disclosing, among other things, the die features the Petition concedes Keck does not disclose. *See* Ex. 1028 at 189–202 (Office Action dated Jan. 8, 2021), 155–67 (Office Action dated Apr. 16, 2021), 71–82 (Office Action dated July 9, 2021), 37–43 (Office Action dated Nov. 9, 2021). Ground 6 relies on Fabbricante (Ex. 1018) for this same teaching.

> Keck does not explicitly disclose a die comprising three or more rows of three or more filament-forming holes, but Fabbricante teaches providing a meltblown die having at least three rows of filament nozzles (filament-forming holes) in which the rows include three or more filament nozzles. Ex. 1018, column 5, lines 58-62; figure 2; figure 3a.
>
> * * * *
>
> In addition, Fabbricante discloses a multirow meltblown die having a primary plate that includes a polymer orifice (filament-forming hole) in which the polymer orifice is flanked on opposing sides by a pair of air nozzles (fluid releasing holes). Ex. 1018, column 5, lines 24-48. Accordingly, Fabbricante discloses a die comprising one or more filament-forming holes, wherein one or more fluid-releasing holes are associated with one filament-forming hole.

Pet. at 63.

The combination of Keck/Fabbricante offered in Ground 6 is not materially or substantively different than the combination of Anderson/Schwarz ’616 and Pomplun/Schwarz ’616 the examiner considered, applied, and withdrew during prosecution.

Becton factor (b) weighs in favor of denying institution.

3. The Examiner’s Positions Applicant Overcame During Prosecution Overlap with the Petitioner’s Reliance on the Prior Art Disclosures — (*Becton* Factor (d))

Despite the prosecution history—including the prosecution history of the priority ’801 and ’474 patents—the Petition challenges the ’276 patent claims in Grounds 2–5 and 7 with the same substantive combinations of prior art, *viz*., a disclosure of a non-co-form process using a non-knife-edge die in a Schwarz patent and disclosures in secondary publications of a co-form process using a knife-edge die. But none of those grounds presents a combination of prior art materially different than the one the examiner applied and withdrew during prosecution.

Specifically, each of Grounds 2–5 and 7 combines a co-form process (with a solid additive feed) using a knife-edge die (in Keck, Ex. 1004, or McDowall, Ex. 1003) with a non-co-form process using a non-knife-edge die (in a Schwarz patent, Ex. 1002 and Ex. 1005). The Petition does not explain that fundamental similarity between the asserted prior art and the prior art applied during prosecution. In four

Office Actions, the examiner expressly considered the relevant, common disclosures in the Schwarz patents. The disclosure in Keck and McDowall is cumulative to the disclosure in Anderson (or Pomplun) that the examiner applied during prosecution. The combinations presented in these grounds is therefore not substantively different than the one the examiner applied and ultimately withdrew during prosecution.

Likewise, Ground 6 combines a co-form process (with a solid additive feed) using a knife-edge die (in Keck, Ex. 1004) with a non-co-form process using a modular die (in Fabbricante, Ex. 1018) that introduces air streams at angles of not less than 10° relative to the polymer filament. *See* Ex. 1018, 5:24–42 (describing in Fig. 1 air exiting fluid-releasing jets *1* and polymer exiting orifice *6*). Although this combination does not rely on a Schwarz patent, this combination also is neither materially different than the combination of Anderson and Schwarz ’616 that the examiner applied and later withdrew nor materially different than the combination of Pomplun and Schwarz ’616 patent that the examiner applied and later withdrew. And the petitioner hasn’t noted any material differences.

The Petition thus is presenting grounds asserting prior art combinations that are similar and not materially different than the combinations the examiner applied, and applicant overcame during prosecution. Further, the Petition presents prior art (common disclosure in the Schwarz patents) that is cumulative (if not

identical) to that evaluated, applied to reject the claims, and overcome during prosecution. The Petition effectively asks the Board to second guess the examiner's withdrawal of rejections in view of applicant's (Patent Owner's) prosecution arguments that would apply similarly to the petitioned grounds.

Becton factor (d) weighs in favor of denying institution.

* * * *

The substantive disclosures in the prior art and arguments presented in the Petition, in the context of *Becton* factors (a), (b), and (d), are the same or substantially the same as those previously presented to the Office during prosecution. These factors therefore weigh in favor of denying the Petition.

C. Petitioner Has Not Demonstrated the Examiner Erred in a Manner Material to Patentability — (*Becton* Factors (c), (e), and (f))

Where, as here, the Office has considered the same or substantially the same unpatentability arguments, *see Advanced Bionics*, Paper 6 at 10, the Board should consider whether the Petition articulates a material error by the examiner during prosecution. *Id*. But the Board need not independently review and assess the merits of each petitioned ground to conclude whether and how any material error occurred where, as here, the petitioner does not explain adequately what any alleged material error is. *Valtrus*, Paper 18 at 21, *see also*, *Roku, Inc. v. Universal Elecs., Inc.*, IPR2019-01619, Paper 11 at 11, 19 (PTAB Apr. 2, 2020) (declining to

consider merits of a patentability challenge where the petitioner did not "explain adequately how the examiner erred in a manner material to patentability").

1. The Asserted Prior Art Disclosures Were Evaluated During Prosecution — (*Becton* Factor (c))

The petitioner asserts that six of the seven grounds rely on prior art "not cited in an IDS and … not evaluated in any manner," and that "[n]one of these references were [*sic*, was] before the Examiner, nor are they cumulative of the art the Examiner considered." Pet. at 12. As explained in Section III.B.1 and III.B.2, above, in all seven grounds, the Petition relies on publications (and/or disclosures therein) that Examiner Tentoni already considered during prosecution and/or considered during prosecution of the priority '801 and '474 patents over which the '276 patent is terminally disclaimed. Table J (at page 38) summarizes the prior art cited in each ground. The Petition presents substantively the same combinations the examiner previously applied to reject the claims, but later withdrew.

Becton factor (c) weighs in favor of denying institution.

2. Petitioner Has Not Sufficiently Pointed Out How the Examiner Erred in Evaluating the Prior Art Disclosures — (*Becton* factor (e))

The petitioner has not explained adequately how the examiner erred in allowing the claims to issue. *First*, the petitioner concedes Keck was disclosed in an IDS, but that the "Examiner erred by not substantively evaluating it" because "with

other references, [Keck] renders the claims of the '276 patent obvious. Pet. at 12. But the petitioner identifies no specific error in the examiner's evaluation of what Keck discloses. *See Roku*, Paper 11 at 11, 19. As explained in Section III.B.1(b), above, Keck's disclosure is no more relevant than disclosures in Anderson and Pomplun, which the examiner considered and repeatedly applied to reject claims during prosecution.

Second, the petitioner concedes the examiner applied Schwarz '616 patent in rejecting the claims of the '276 patent but asserts the examiner "erred in withdrawing Schwarz '616 as a basis for rejection for the claims of the '276 patent (without any stated reasoning)." Pet. at 12. That is neither accurate nor fair because the examiner rejected—four times—the claims as unpatentable over the combination of (a) a disclosure of a knife-edge die and co-form process in Anderson or Pomplun and (b) a disclosure of a non-co-form process using a non-knife-edge die in Schwarz '616. *See* Section II.B, above. The examiner understood what Schwarz '616 disclosed, repeatedly applied Schwarz '616 in combinations of prior art to reject claims, and ultimately withdrew the rejections following the applicant's response and amendment. *Id*.

Third, the petitioner complains that the examiner should have combined Schwarz '616 with "analogous references, such as those identified in [the] petition." Pet. at 12–13. In support, the petitioner points to specific arguments the

applicant presented in prosecution to overcome the rejections over Schwarz '616. *Id*. But, as explained above, the Keck and McDowall publications are no more analogous to the disclosure in the Schwarz patents than Anderson and Pomplun—all four concern co-form processes using knife-edge dies. The disclosures in Keck and McDowall on which the petitioner relies are cumulative to what Anderson and Pomplun disclosed. *See* Section III.B.1(b), above.

Lastly, the petitioner complains that "the Examiner withdrew all rejections based on Schwarz '616 without any stated reasons." Pet. at 12, 13. But the examiner's silence here is not sufficient to show material error. *See Ivantis, Inc. v. Sight Sciences, Inc.*, IPR2022-01540, Paper 14 at 19 (PTAB Mar. 22, 2023) ("To the extent Petitioner equates the Examiner's silence in discussing relevant prior art to a material error …, we are not persuaded."). Regardless, the examiner understood and applied Schwarz '616 and repeatedly rejected claims over combinations of disclosures—including disclosures in Schwarz '616—that are commonly present in the prior art asserted in the Petition and in the prior art applied during prosecution.

Becton factor (e) also weighs in favor of denying institution.

3. Petitioner Presents No Additional Evidence or Facts Warranting the Board's Reconsideration — (*Becton* Factor (f))

The petitioner has shown no material error during prosecution and has hardly even attempted to present this showing. In the context of the *Becton* factors,

the Board has sufficient bases to find that factors (c) and (e) weigh in favor of denying the Petition. With respect to factor (f), at most, the Petition relies on declaration testimony of an expert witness. *See* Ex. 1015 (Bhat Decl.). Notably, the Petition does not explain how (if at all) this testimony shows that the examiner erred in allowing the claims. Specifically, the Petition does not even cite the testimony in arguing that discretionary denial is inappropriate. Pet. at 11–13. Further, the declaration testimony nowhere suggests the examiner erred. *Becton* factor (f) therefore also weighs in favor of denying institution.

Regardless, the presentation of declaration testimony should not, by itself, overcome the other five *Becton* factors that Patent Owner respectfully submits weigh in favor of denying the Petition.

IV. PETITIONER HAS NOT SHOWN IT IS REASONABLY LIKELY TO PREVAIL ON GROUND 1, ALLEGING ANTICIPATION

Ground 1 asserts that McDowall (Exhibit 1003) anticipates claims 1, 2, 6–9, 13, 14, and 21–24, even though McDowall does not disclose a "die comprising three or more rows of three or more filament-forming holes," as recited in each of independent claims 1 and 24. Instead, for anticipation, the Petition asserts that that "it is well known that a spunbound spinnerette die comprises multiple rows (e.g., more than three) of spinning capillaries (filament-forming holes) with each row typically comprising from 50 to 500 spinning capillaries." Pet. at 23. For support,

the Petition cites two paragraphs of testimony from the declaration of petitioner's expert, Dr. Bhat (Exhibit 1015), which merely repeat the Petition's assertion without citing any supporting evidence. The testimony should be given little weight. *Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper 9 at 15 (PTAB Aug. 24, 2022) (precedential) (giving little weight to expert testimony unsupported by evidence or reasoning).

Even if the Petition's (and the expert's) assertion of what was well-known in the field (as of the challenged claims' effective filing date) is true, McDowall still would not anticipate the claims. Why? Because to anticipate, a prior art reference must disclose, either expressly or inherently, all the features recited in the claim. *See generally*, *EMI Group N. Am., Inc. v. Cypress Semiconductor Corp.*, 268 F.3d 1342, 1350 (Fed. Cir. 2001) (citation omitted). Further, to anticipate, the prior art reference must disclose the claimed invention in as complete detail as is recited in the patent claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989). McDowall does not expressly disclose the die features recited in subpart (a) of independent claims 1 and 24.

The Petition did not argue (nor would there be merit to an argument) that McDowall *inherently* discloses the die features recited in this subpart of the independent claims. McDowall teaches a knife-edge die. As explained above, even the Patent Office examiner readily understood that a reference disclosing a knife-edge

die would not, by that disclosure, inherently have disclosed the type of die recited in subpart (a) of the independent claims. As explained in Section III.B.1(b), above, the examiner applied a reference (Anderson) similar to McDowall insofar as it disclosed a co-form process using a knife-edge die. But the examiner never rejected the claims as anticipated by such a reference. Rightfully so, in view of clear precedent requiring an anticipatory reference to disclose all claimed features.

The Petition does not demonstrate that there is a likelihood of success that the claims challenged in Ground 1 are unpatentable as anticipated by McDowall, which fails to disclose subpart (a) of each independent claim.

V. PETITIONER HAS NOT SHOWN IT IS REASONABLY LIKELY TO PREVAIL ON GROUNDS 2 THROUGH 7, ALLEGING OBVIOUSNESS

The Petition asserts the inventions recited in the patent's two independent claims (claim 1 and 24) are obvious. These assertions are set forth in Grounds 2, 3, 4, and 6. As explained below, the petitioner has not shown it is reasonably likely to prevail on any of these grounds. Specifically, the Petition identifies no reliable evidence on which the Board could find that a person having ordinary skill in the art would have had a reasonable expectation of success in combining the prior art these grounds present.

A conclusion of obviousness requires finding that a person of ordinary skill in the art would have had a reasonable expectation of success. *In re Stepan Co.*,

868 F.3d 1342, 1345–46 (Fed. Cir. 2017). Reasonable expectation of success refers to the likelihood of success in combining references to meet the limitations of the claimed invention. *Intelligent Bio–Systems, Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1367 (Fed. Cir. 2016). Evidence of a reasonable expectation of success "may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved." *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1125 (Fed. Cir. 2000).

The Petition includes a conclusory argument that the person having ordinary skill in the art would have had a reasonable expectation of success in combining the asserted prior art to arrive at the inventions recited in the two independent claims (claims 1 and 24) on the basis that "[t]he simple substitution of a multirow meltblown die in lieu of a knife-edge meltblown die in the coform process would be within the routine skill of the POSA and such a substitution would not result in the coform process … being inoperable." *E.g.*, Pet. at 33. Yet in each such instance, the Petition cites no evidence in support. The Petition does not even cite to its expert witness's declaration (Exhibit 1015), which merely repeats the Petition's conclusory argument.

Table K

Ground	Argument	Corresponding Testimony
2	Pet. at 33	Ex. 1015 at ¶ 203*
3	Pet. at 48	Ex. 1015 at ¶ 270*
4	Pet. at 56–57	Ex. 1015 at ¶ 337*
6	Pet. at 67–68	Ex. 1015 at ¶¶ 408–10*

* The Petition cites no testimony

Importantly, these paragraphs of the expert witness's declaration identify no evidence of a reasonable expectation of success. Specifically, the expert does not declare that any prior art reference, knowledge of a skilled artisan, or the nature of improvement over the prior art would have offered the skilled person a reasonable expectation of success. *See Brown & Williamson*, 229 F.3d at 1125; *see also*, *Xerox Corp.*, Paper 9 at 15. Having identified no such evidence either in the Petition or in the expert witness's declaration, the petitioner has not shown it is reasonably likely to prevail in establishing that the independent claims recite obvious inventions.

Although arguments and evidence of a motivation to combine may support a finding of a reasonable expectation of success, the Petition's conclusory arguments are not sufficient to support such a finding. *See Elekta Ltd. v. Zap Surgical Sys., Inc.*, 81 F.4th 1368, 1377 (Fed. Cir. 2023) (noting that "a finding of a motivation to combine does not necessarily establish a finding of reasonable expectation of success") (citing *Eli Lilly & Co. v. Teva Pharms. Int'l GmbH*, 8 F.4th 1331, 1344

(Fed. Cir. 2021)). And in any event, neither the Petition nor the expert witness's declaration explains how the arguments and evidence concerning a motivation to combine would also establish a reasonable expectation of success.

Grounds 5 and 7 challenge only dependent claims and necessarily rely on a conclusion the independent claims are obvious. The petitioner is no more likely to succeed in demonstrating those dependent claims are unpatentable.

The petitioner had to identify "with particularity" all "evidence that supports the grounds for the challenge to each claim." 35 U.S.C. § 312(a)(3). Its failure to do so may not be remediated in a reply to this response. *Intelligent Bio–Systems*, 821 F.3d at 1369 (disregarding new arguments and evidence in reply and noting "the expedited nature of IPRs bring with it an obligation for petitioners to make their case in their petition to institute").

Accordingly, the Board should deny the Petition on its merits.

* * * *

VI. CONCLUSION

Consistent with the Board precedent discussed above, the Board should determine that the same or substantially the same (cumulative) prior art and combinations thereof previously were presented to the Office and that the petitioner has not demonstrated the Office erred in a manner material to the patentability of the challenged claims. The Board should therefore exercise its discretion to deny institution of trial. Separately, with respect to Ground 1, the Board should determine that the Petition does not demonstrate the asserted prior art anticipates. And with respect to Grounds 2 through 7, each of which asserts challenged claims are obvious, the Board should determine that the petitioner has not shown it is reasonably likely to prevail on any ground. The Board may thus deny institution of trial on its merits as well.

Respectfully submitted,

December 28, 2023

/ Sandip H. Patel, Reg.# 43848 /

Sandip H. Patel (Reg. No. 43,848)
spatel@marshallip.com
Michael R. Weiner (Reg. No. 38,359)
mweiner@marshallip.com
Counsel for Patent Owner
MARSHALL, GERSTEIN & BORUN LLP

CERTIFICATE OF COMPLIANCE

The undersigned certifies that, pursuant to 37 C.F.R. § 42.24(d), the foregoing "PATENT OWNER PRELIMINARY RESPONSE" complies with 37 C.F.R. § 42.24(b)(i) permitting up to 14,000 words because, excluding the exempted portions of the response, the response contains 11,015 words as counted by the word-processing system used to prepare the response.

CERTIFICATE OF FILING AND SERVICE

The undersigned certifies that, pursuant to 37 CFR § 42.6(e), copies of the foregoing "PATENT OWNER PRELIMINARY RESPONSE" and Exhibits 2001, 2002, and 2004–2007 are being electronically filed via the Patent Trial and Appeal Case Tracking System (P-TACTS) and served today, December 28, 2023, on Petitioner's counsel:

Patrick D. Kuehl, Jr. (patrick.kuehl@rimonlaw.com) and
Timothy Balts (timothy.balts@rimonlaw.com).

December 28, 2023

/ Sandip H. Patel, Reg.# 43848 /
Sandip H. Patel (Reg. No. 43,848)
Counsel for Patent Owner
MARSHALL, GERSTEIN & BORUN LLP