

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SNF S.A.,
Petitioner,

v.

SOLENIS TECHNOLOGIES, L.P.,
Patent Owner.

IPR2020-01730
Patent 9,644,320 B2

Before CHRISTOPHER L. CRUMBLEY, JEFFREY W. ABRAHAM, and
DAVID COTTA, *Administrative Patent Judges*.

COTTA, *Administrative Patent Judge*.

DECISION

Denying Petitioner's Request for Rehearing
37 C.F.R. § 42.71(d)

I. INTRODUCTION

SNF S.A. (“Petitioner”) filed a Petition requesting *inter partes* review of claims 1–21 of U.S. Patent No. 9,644,320 B2 (Ex. 1001, “the ’320 patent”). Paper 2 (“Petition” or “Pet.”). Solenis Technologies, L.P. (“Patent Owner”) filed a Preliminary Response to the Petition. Paper 7 (“Prelim Resp.”). With our authorization, Petitioner filed a Reply specifically addressing 35 U.S.C. § 325(d) (Paper 8, “Reply”), and Patent Owner filed a Sur-Reply in response (Paper 9, “Sur-Reply”). On April 22, 2021, after consideration of the Petition, Preliminary Response, Reply, and Sur-Reply, we entered a Decision denying institution of *inter partes* review Paper 10 (“Decision” or “Dec.”). On May 24, 2021, Petitioner filed a Request for Rehearing (Paper 11, “Req. Reh’g”) seeking reconsideration of our Decision. On July 16, at our request (Paper 12), the parties filed briefing addressing whether we should exercise our discretion to deny institution (Paper 13 (Petitioner’s Brief), Paper 14 (Patent Owner’s Brief)).

For the reasons stated below, Petitioner’s Request for Rehearing is denied.

II. STANDARD OF REVIEW

When reconsidering a decision on institution, we review the decision for an abuse of discretion. 37 C.F.R. § 42.71(c). An abuse of discretion may be found if a decision is based on an erroneous interpretation of law, if a factual finding is not supported by substantial evidence, or if the decision represents an unreasonable judgment in weighing relevant factors. *Star Fruits S.N.C. v. United States*, 393 F.3d 1277, 1281 (Fed. Cir. 2005); *Arnold P’ship v. Dudas*, 362 F.3d 1338, 1340 (Fed. Cir. 2004); *In re Gartside*, 203 F.3d 1305, 1315–16 (Fed. Cir. 2000). The party requesting rehearing has the

burden of showing the decision should be modified, which includes specifically identifying all matters the party believes we misapprehended or overlooked. 37 C.F.R. § 42.71(d).

III. BACKGROUND

The Petition asserts that claims 1–21 of the '320 patent would have been obvious over various combinations of the cited art. Pet. 31–62. In the Decision, we declined to institute an *inter partes* review. The Decision, like the parties' briefing, focused on the limitation of claim 1 requiring that the ratio of the weight average molecular weight ("WAMW") of the claimed cationic copolymer to the percentage of the copolymer comprised of diallyldimethylammonium halide monomer ("% DADMAC") is "greater than or equal to 4000 Daltons/weight %" (the "ratio limitation" or the "claimed ratio"). This limitation, or a narrower version of this limitation, is common to 19 of the 21 challenged claims.

The Petition acknowledged that the prior art did not expressly disclose the claimed ratio, but Petitioner argued that the prior art disclosed ranges for the components that comprise the claimed ratio – i.e., ranges for WAMW and for % DADMAC. Petitioner used the WAMW and % DADMAC ranges in two ways. First, Petitioner selected values falling within the disclosed ranges and used those values to calculate a ratio of WAMW to % DADMAC. *Id.* at 36 (selecting values in connection with Ground 1), 47 (selecting values in connection with Ground 2), 55 (selecting values in connection with Ground 3). Second, Petitioner argued that it would have been obvious to optimize WAMW and % DADMAC within the disclosed ranges and that, doing so would lead to the claimed ratio. *Id.* at 41–44 (reasoning for Ground 1), 51–52 (reasoning for Ground 2), 58–60 (reasoning for Ground 3).

We concluded that Petitioner’s first use of the ranges disclosed in the art – selecting values within the ranges disclosed in the prior art to calculate a ratio – did not support institution because Petitioner never explained how or why it selected any of the specific values it used to calculate the claimed ratio. Dec. 13. We concluded that Petitioner’s second use of the ranges disclosed in the art – optimizing within the disclosed ranges – did not support institution because the prior art did not disclose that the ratio of WAMW to % DADMAC was a result effective variable (*id.* at 17) and because Petitioner had not shown that independently optimizing WAMW and % DADMAC would lead to copolymer having the claimed ratio (*id.* at 17–20).

The Decision recognized that claims 12 and 13 do not include limitations requiring any particular ratio of WAMW to % DADMAC. We found, however, that these claims required that the claimed copolymer have a WAMW of “about 120,000 to about 1 million Daltons” and that Petitioner’s evidence did not support institution because it lacked “an adequate evidentiary foundation supporting Petitioner’s argument that optimizing WAMW would result in a polymer meeting this limitation.” Dec. 12 n.9.

IV. ANALYSIS

In its Request for Rehearing, Petitioner separately argues the claims that recite the claimed ratio (claims 1–11 and 14–21) and the claims that do not (claims 12 and 13). For the claims that recite the claimed ratio, we find that Petitioner has not identified any that matter that we misapprehended or overlooked. For the claims that do not recite the claimed ratio, we find that Petitioner has identified a matter that we overlooked. However, we decline to grant the requested relief that we institute trial. Instead, we exercise our

discretion under 35 U.S.C. § 314(a) to deny institution for the reasons stated below.

A. Claims that recite the claimed ratio (claims 1–11 and 14–21)

Petitioner argues that “[t]he cationic copolymers of Table 1 of Wright ’343 with WAMWs of 585,000, 331,000 or 140,000 include 10% DADMAC” and thus “each of these cationic copolymers anticipates the claimed ratio of greater than or equal to 4000 Dalton/wt%.” Req. Reh’g. 11; *see also, id.* at 13 (calculating the ratio for these copolymers to meet the claimed ratio). Notably absent from the Request for Rehearing is any citation to where this argument was made in the Petition. We have reviewed the Petition and do not find any indication that Petitioner asserted that any of the polymers in Table 1 of Wright ’343 meet the claimed ratio limitation.

There are two places in the Petition where Petitioner explains how it contends Wright ’343 discloses the claimed ratio limitation. In the first instance, Petitioner asserts:

Regarding [the ratio limitation], the ratio of 150,000 WAMW to 25 wt.% DADMAC, as both taught by Wright ’343, is 6,000. Similarly, the ratio of 1,000,000 WAMW to 30 wt.% DADMAC is 33,333.

Pet. 36. The WAMW and DADMAC values recited in this passage are not the same as those asserted to be anticipatory in the Request for Rehearing, nor are they drawn from Table 1 of Wright ’343. As we explained in the Decision, “it appear[ed] that Petitioner picked the specific values it used [in the Petition] to calculate a ratio from broad, unrelated ranges of WAMW and % DADMAC disclosed in the prior art simply because they combine to produce a ratio that meets the ratio recited in the claims of the ’320 patent.” Dec. 15. Accordingly, the first instance where the Petition discusses how

Wright '343 discloses the claimed ratio limitation does not include the anticipation argument now advanced in the Request for Rehearing.

In the second instance where the Petition explains how it contends Wright '343 discloses the claimed ratio limitation, Petitioner asserts:

Wright '343 does not expressly teach the claimed ratio of >4,000. However, a POSA [person of ordinary skill in the art] would have arrived at the ratio using routine experimentation to optimize result-effective variables, as guided by the art. Ratios would have been understood by a POSA as a convenient shorthand notation for comparing WAMW and %DADMAC for a given copolymer.

Pet. 41-42; *see also, id.* at 44 (arguing that the POSA would understand that WAMW and % DADMAC were “known result-effective variables” and that it would have been “routine” to “experimentally determine combinations of WAMW and % DADMAC” that result in desirable properties, thus arriving at the claimed ratio). Again, the argument in the Petition is different from the anticipation argument now advanced in the Request for Rehearing.

Accordingly, the second instance where the Petition discusses how Wright '343 discloses the claimed ratio limitation does not include the anticipation argument now advanced in the Request for Rehearing.

We decline to use Petitioner's Request for Rehearing as an opportunity to consider arguments that could have been, but were not, raised in the Petition. Accordingly, we do not consider or offer an opinion on whether Table 1 of Wright '343 discloses copolymers that meet the claimed ratio.

Petitioner also argues that the Decision was “wrong” when it stated that Petitioner “never explains how or why a person of ordinary skill in the art would have been led to select the value ‘150,000 WAMW,’ or ‘25 wt.% DADMAC,’ or any of the specific values it uses to calculate the claimed

ratio.” Req. Reh’g 14 (quoting Dec. 13). As evidence that the Decision was wrong, Petitioner points to its argument that the claimed ratio is a “convenient shorthand notation comparing WAMW and %DADMAC” and that “[a] POSA would have been motivated to use [the claimed ratio] to conveniently express the relationship between WAMW and %DADMAC.” *Id.* (quoting Pet. 3). We do not find this persuasive because even if we accept that a POSA would have used the claimed ratio as a “convenient shorthand,” that does not explain how or why a POSA would have selected any of the specific values Petitioner used in its Petition to calculate the claimed ratio.

Petitioner also points to the definition of “range” in the challenged patent as evidence that the Decision was wrong, explaining that “Dr. Kleemann applied this definition to . . . Wright ’343 to select the individual values to calculate the claimed ratio.” *Id.* (citing Ex. 1003 ¶ 39). We do not find this persuasive because Petitioner does not provide any reason why a POSA would have understood the definition of “range” that Patent Owner provided *in the challenged patent* to reflect how ranges were used *in the disclosure of the prior art ’343 Wright reference*.

In sum, Petitioner’s Request for Rehearing does not persuade us that we misapprehended or overlooked any matters relating to claims 1–11 and 14–21.

B. Claims that do not recite the claimed ratio (claims 12 and 13)

Petitioner argues that “Wright ’343 anticipates the claimed WAMW range.” Req. Reh’g 4 (referencing Table 1 of Wright ’343). Petitioner also asserts that “each of Wright ’343, Dauplaise ’022 and Coscia ’932 teaches ranges which encompass and/or overlap the claimed WAMW range rendering it *prima facie* obvious.” *Id.* at 5. Petitioner contends that the

Decision erred by “only assessing evidence that ‘optimizing WAMW would result in a polymer meeting this limitation.’” *Id.* at 6. We agree with Petitioner that the Decision overlooked certain of its arguments with respect to the claimed WAMW range.

The Petition addresses the claimed WAMW range in claim 12 by referring back to the arguments it offered in connection with claim 1. Pet. 37 (asserting, in connection with Ground 1, that “CF 12A-12E correspond to CF 1B, 1A, and 1C-1E, respectively, which are discussed above.”); 49 (repeating same language in connection with Ground 2); 56 (repeating same language in connection with Ground 3). The arguments that the Petition referred back to for claim 1, Ground 1, state:

Regarding CF 1C, Wright ’343 teaches the vinylamide polymer has a WAMW of “at least about 30,000 to at least about 500,000 or even as high a molecular weight as 5,000,000.” Ex. 1005 at 3:30-37. Wright ’343 teaches additional WAMW ranges of 10,000-5,000,000, 70,000-1,000,000, $\geq 100,000$, and 5,000-150,000. Ex. 1005 at 6:25-36; Ex. 1003 ¶ 65. Wright ’343 teaches ranges which encompass and/or overlap the claimed range, rendering it *prima facie* obvious. *DuPont*, 904 F.3d at 1008. Further, the patentee defined a range as being shorthand for individual numbers within the range without having to list each individual number. A POSA, therefore, would understand that Wright ’343 WAMW ranges are a listing of at least the endpoint range values of 150,000, 500,000 and 1,000,000 as point-values, thereby anticipating the claimed ranges. Wright ’343 teaches a POSA that relatively high WAMW vinylamide polymers ($\geq 25,000$) can be glyoxalated “which in turn gives better performance on paper or board.” Ex. 1005 at 10:53-56.

Id. at 34. We do not find in this argument any indication that Petitioner took the position that Table 1 of Wright ’343 included values that meet the claimed WAMW range. Nor do we find such an assertion in the Petition’s

similar arguments made in connection with Grounds 2 and 3. *Id.* at 45–46 (asserting, in connection with Ground 2, that Lu ’382, Dauplaise ’022, Coscia ’932, and Wright ’343 disclose ranges that are very close to or encompass the claimed range), 54 (asserting, in connection with Ground 3, that Dauplaise ’022 discloses ranges that overlap the claimed range).

However, it is clear that Petitioner asserted that the cited art, including Wright ’343, disclosed WAMW ranges that overlap with the claimed range. When we concluded in the Decision that “Petitioner fail[ed] to present an adequate evidentiary foundation” supporting its position that the prior art rendered the claimed WAMW range obvious, we overlooked that Petitioner’s arguments – i.e., that it would have been obvious to optimize within the disclosed WAMW range – did not apply to claims 12 and 13. Dec. 12 n.9. Because, as Petitioner points out in its Request for Rehearing, the WAMW ranges in the prior art overlap with the claimed WAMW range, they support a conclusion that the claimed range is *prima facie* obvious. *In re Peterson*, 315 F.3d 1325, 1329 (Fed. Cir. 2003).

Accordingly, Petitioner’s Request for Rehearing persuades us that we misapprehended or overlooked Petitioner’s reliance on overlapping ranges in connection with claims 12 and 13.

C. Discretion under 314(d)

Under appropriate circumstances, the Board may exercise discretion to deny a petition “even when the petition includes at least one claim subject to a challenge that otherwise meets the criteria for institution.” Consolidated Trial Practice Guide¹ at 64; *see also* 84 Fed. Reg. 64,280 (Nov. 21, 2019). The Petition consists of challenges to twenty one claims. Pet. 5. For the

¹ Available at <http://www.uspto.gov/TrialPracticeGuideConsolidated>.

reasons discussed herein and in the Decision, Petitioner has failed to demonstrate a reasonable likelihood that it will prevail with respect to challenged claims 1–11 and 14–21. However, based on the preliminary record, Petitioner has demonstrated a reasonable likelihood that claims 12 and 13 would have been obvious over the cited art. Accordingly, this case presents the question whether we should exercise our discretion to deny institution.

Our decision as to whether discretionary denial is warranted is guided by *Chevron Oronite Co. v. Infineum USA L.P.*, IPR2018-00923, Paper 9 (PTAB Nov. 7, 2018) (informative) and *Deeper, UAB v. Vexilar, Inc.*, IPR2018-01310, Paper 7 (PTAB Jan. 24, 2019) (informative). Both of these cases explain that “the Board may consider the number of claims and grounds that meet the reasonable likelihood standard when deciding whether to institute *inter partes* review under 35 U.S.C. § 314(a).” *Chevron*, Paper 9 at 10–11; *Deeper*, Paper 7 at 42. In *Chevron*, the panel ultimately exercised discretion to deny institution where “Petitioner demonstrate[d], at most, a reasonable likelihood of prevailing with respect to two dependent claims out of a total of twenty challenged claims.” *Chevron*, Paper 9 at 12. Similarly, in *Deeper*, the panel exercised discretion to deny institution where Petitioner demonstrated a reasonable likelihood of prevailing with respect to only two out of twenty three challenged claims. *Deeper*, Paper 7 at 43.

In briefing addressing our potential exercise of discretion, Petitioner attempts to distinguish these cases on the ground that “the case for obviousness here is much closer and merits institution even in view of *Chevron* . . . and *Deeper*.” Paper 13, 2. Petitioner further argues:

At this stage, Patent Owner has provided no evidence refuting that the examples of Table 1 of Wright ‘343 meet the claimed

ratio or that one of skill would be motivated with a reasonable expectation of success to substitute Lu 382's 30 wt% or 40 wt% DADMAC for the 10 wt% DADMAC of Wright '343 which also meets the claimed ratio. To deny institution at this time before the parties have an opportunity to be heard on a fully developed record does not protect the public's paramount interest in seeing that patent monopolies are kept within their legitimate scope and therefore is not in the interests of the integrity of the patent system.

Id. at 5. We do not find these arguments persuasive because they rely principally on arguments that, as discussed above, were not raised in the Petition. Based on the arguments actually set forth in the Petition, viewed in light of the entire preliminary record, we cannot conclude that the merits of Petitioner's challenges that do not rise to the level of a reasonable likelihood are particularly "close," as Petitioner alleges.

Petitioner offers to waive its arguments with respect to invalidity grounds 2 and 3 if we institute *inter partes* review. *Id.* This offer makes our exercise of discretion a closer call, but even absent grounds 2 and 3, granting institution would require that we institute on all claims. We have determined that, for a sizeable majority of challenged claims, Petitioner has not demonstrated a reasonable likelihood of prevailing. Under the circumstances presented here, we determine it would not be an efficient use of the Board's time and resources to institute review. *See Chevron*, Paper 9 at 10–11; *Deeper*, Paper 7. Accordingly, we exercise discretion under 35 U.S.C. § 324(a) to decline to institute post-grant review.

V. CONCLUSION

For the foregoing reasons, Petitioner has not demonstrated that we abused our discretion in determining that the Petition did not establish a reasonable likelihood of prevailing in demonstrating that claims 1–11 and

14–21 would have been obvious over the cited art. Petitioner has demonstrated a matter that we overlooked when we determined that the Petition did not establish a reasonable likelihood of prevailing with respect to claims 12 and 13. However, we decline to grant the requested relief that we institute *inter partes* review. Instead, we exercise our discretion under 35 U.S.C. § 314(a) to deny institution.

VI. ORDER

It is hereby

ORDERED that the Request for Rehearing is denied.

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