

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

DAICEL CORPORATION,
Petitioner,

v.

CELANESE INTERNATIONAL CORPORATION,
Patent Owner.

Case IPR2015-00171
Patent 8,076,507 B2

Before LINDA M. GAUDETTE, CHRISTOPHER L. CRUMBLEY, and
JON B. TORNQUIST, *Administrative Patent Judges*.

GAUDETTE, *Administrative Patent Judge*.

DECISION
Denying Patent Owner's Request for Rehearing
37 C.F.R. § 42.71

I. BACKGROUND

On June 26, 2015, we entered a Decision (Paper 13, “Reh’g Dec.”) granting-in-part Daicel Corporation’s (“Petitioner”) Request for Rehearing (Paper 12) and instituting *inter partes* review of claims 42–44, 47–51, 53, and 55–57 of U.S. Patent No. 8,076,507 B2 (Ex. 1002, “the ’507 patent”). In Petitioner’s Request for Rehearing, Petitioner persuaded us that, in our initial decision denying institution of *inter partes* review (Paper 11, “Init. Dec.”), we overlooked testimony in the declaration of its expert, Mr. Cooper (Ex. 1003, “Cooper Declaration”). See Reh’g Dec. 9. Upon reconsideration of the Petition (Paper 2, Petition for *Inter Partes* Review (“Pet.”)) in light of Petitioner’s Request for Rehearing, we determined the information presented in the Petition was sufficient to support a reasonable likelihood that Petitioner would prevail on the merits in showing claims 42–44, 47–51, 53, 55, and 56 are anticipated by U.S. Patent No. 5,625,095 (Ex. 1010, “the ’095 patent”), and in showing claim 57 would have been obvious over the ’095 patent and Japanese Patent Application No. 2000-72712 (Ex. 1020 (English Translation), “JP ’712”). See Reh’g Dec. 3–5, 9–10. Accordingly, we instituted an *inter partes* review based on these grounds of unpatentability. *Id.* at 10. We were not persuaded, however, that we abused our discretion in declining to institute an *inter partes* review of claims 42–44, 47–51, 53, 55, and 56 based on obviousness over Singh¹ (Ex. 1011) in view of the ’095 patent and Akinori² (Ex. 1013), and claims 42–44, 47–51, 53, and 55–57

¹ U.S. Patent No. 6,339,171 B1

² Acetic Acid Synthesis From Methanol, 20 J. JAPAN PETROLEUM INSTITUTE 379–462 (1977) (English Translation).

based on obviousness over the same combination of references and JP '712. *See* Reh'g Dec. 5–10. We exercised our discretion under 35 U.S.C. § 314(a) and declined to institute an *inter partes* review of claims 42–44, 47–51, 53, 55, and 56 as unpatentable over the '095 patent and Akinori, because Petitioner had not articulated a substantive difference between this obviousness challenge and the anticipation challenge based on the '095 patent. *See* Reh'g Dec. 8.

On July 10, 2015, Celanese International Corporation (“Patent Owner”) filed a Request for Rehearing (Paper 15, “PO Req. Reh'g”) of our Rehearing Decision instituting *inter partes* review of claims 42–44, 47–51, 53, and 55–57 of the '507 patent. For the reasons that follow, Patent Owner's Request for Rehearing is denied.

II. ANALYSIS

When considering a request for rehearing of a decision on a petition, the Board reviews the decision for an abuse of discretion. 37 C.F.R. § 42.71(c). An abuse of discretion may arise if a decision is based on an erroneous interpretation of law, if a factual finding is not supported by substantial evidence, or if an unreasonable judgment is made in weighing relevant factors. *Star Fruits S.N.C. v. U.S.*, 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 that the decision should be modified, and “[t]he request must specifically identify all matters the party believes the Board misapprehended or overlooked.” 37 C.F.R. § 42.71(d).

Patent Owner contends we erred in: (1) relying on Mr. Cooper's arguments and alleged calculations regarding DME concentration, because they were improperly incorporated by reference into the Petition; (2) according weight to Mr. Cooper's Testimony that DME is inherently present in an overhead distillation stream of the '095 patent process; and (3) determining Petitioner had established a reasonable likelihood that it would prevail in showing unpatentability of claims 43, 47, and 51. *See* PO Req. Reh'g 3–4, 11–13.

We address each of the issues raised by Patent Owner in detail below.

A. Was the Board's decision to institute based on consideration of arguments and evidence that were improperly incorporated by reference into the Petition?

Patent Owner argues the Petition is completely silent concerning the arguments and evidence on which we based our decision to institute trial. PO Req. Reh'g 4. Patent Owner argues, more specifically, that the Petition does not discuss Mr. Cooper's calculations, or how one skilled in the art would go about making such calculations. *Id.* Patent Owner contends Petitioner's claim that DME is present in the reactor of the '095 patent process is stated in a single sentence on page 24 of the Petition. *Id.* at 2–3. Patent Owner thus contends our decision to institute trial was based on consideration of arguments and evidence that were improperly incorporated by reference into the Petition. *Id.* at 4.

We have fully considered Patent Owner's argument, but are not persuaded that our decision to institute trial was based on arguments and/or evidence that were not properly presented in the Petition.

We do not agree with Patent Owner that Petitioner's arguments in support of the presence of DME are limited to the following sentence: "It is well known that such a mixture will produce at least some amount of DME through equilibrium processes," PO Req. Reh'g 2 (quoting Pet. 24). On page 4 of our Rehearing Decision, we quote Petitioner's arguments explaining why DME necessarily would be present in the reactor and distillation overheads in the '095 patent process. Reh'g Dec. 4 (quoting Pet. 24).

Patent Owner has not explained why these arguments from the Petition, that include specific citations to the Cooper Declaration and Akinori as supporting evidence, are insufficient to support its patentability challenge based on anticipation by the '095 patent. See 37 C.F.R. § 42.22(a)(2) (requiring that the Petition include a full statement of the reasons for the relief requested, including a detailed explanation of the significance of the evidence); *id.* at § 42.104 (requiring that the full statement in the Petition identify the specific portions of the supporting evidence relied upon to support the challenge, and state the relevance of the evidence to the challenge raised).

In sum, Patent Owner has not persuaded us that our decision to institute trial was based on consideration of arguments and evidence that were improperly incorporated by reference into the Petition.

B. Did the Board err in according weight to Mr. Cooper's testimony that DME is inherently present in an overhead distillation stream of the '095 patent process?

Patent Owner contends "the Board erred in its consideration of Mr. Cooper's testimony and calculations, which were not based on substantial

evidence, but were instead based on numerous unsupported assumptions and irrelevant evidence.” PO Req. Reh’g 4. Patent Owner discusses Mr. Cooper’s calculations and opinions, as well as the evidence relied on by Mr. Cooper in support thereof, and explains why it believes Mr. Cooper failed to demonstrate that DME is necessarily present in an overhead distillation stream of ’095 patent process. *See id.* at 4–11.

As acknowledged by Patent Owner (*id.* at 5), a request for rehearing “must specifically identify all matters the party believes the Board misapprehended or overlooked, and the place where each matter was previously addressed in a motion, an opposition, or a reply,” 37 C.F.R. § 42.71(d). Patent Owner contends its arguments “respond to arguments that were presented *exclusively* in the Cooper Declaration . . . [and] not contained in the Petition itself,” so Patent Owner had no reasonable opportunity to respond to them. Req. Reh’g 5. We disagree that Patent Owner did not have an opportunity in its Preliminary Response to address any alleged deficiencies in Mr. Cooper’s calculations. As noted in Section II.A., above, the Petition provides a sufficiently detailed discussion of why DME necessarily would be present in the reactor and distillation overheads in the ’095 patent process, and identifies paragraphs 97 and 99 of the Cooper Declaration in support thereof. *See* Pet. 24. Thus, the arguments presented in Section IV of Patent Owner’s Request for Rehearing fail to comply with 37 C.F.R. § 42.71(d), and we need not address them for this reason.

Nonetheless, Patent Owner’s arguments regarding the alleged deficiencies in Mr. Cooper’s testimony are not persuasive at this stage of the proceeding, because they are based primarily on attorney argument. In other words, because Patent Owner has not given us a reason to doubt the veracity

of Mr. Cooper's testimony, at this stage of the proceeding, it is premature for us to conclude that his opinion is entitled to little or no weight. During trial, Patent Owner will have an opportunity to further address Mr. Cooper's testimony, and present new testimony evidence to support its assertions as to the sufficiency of Mr. Cooper's testimony.

In sum, Patent Owner has not persuaded us that we erred in according weight to Mr. Cooper's Testimony that DME is inherently present in an overhead distillation stream of the '095 patent process.

C. Did the Board err in determining Petitioner established a reasonable likelihood that it would prevail in showing the unpatentability of claims 43, 47, and 51 as anticipated by the '095 patent?

Patent Owner requests that we reconsider our decision to institute trial as to claims 43, 47, and 51 (PO Req. Reh'g 11–13), which depend directly from independent claim 42 (Ex. 1002, 15:13, 29, 53). In its Preliminary Response (Paper 9, "Prelim. Resp."), Patent Owner presented separate arguments explaining why the '095 patent fails to describe the features of claims 43, 47, and 51. *See* Prelim. Resp. 32–39. We did not address these arguments in our initial decision, because we determined Petitioner's evidence was insufficient to support its contention that DME is inherently present in an overhead distillation stream in the '095 patent process as recited in independent claim 42. *See* Init. Dec. 17–23. In our decision on Petitioner's Request for Rehearing, however, we agreed with Petitioner that we had overlooked evidence relied on by Petitioner in support of its patentability challenge based on anticipation by the '095 patent, and determined that, "Mr. Cooper's testimony provide[d] persuasive support for Petitioner's contention that DME is inherently present in an overhead

distillation stream of the '095 patent process, and that claim 42 is anticipated by the '095 patent.” Reh’g Dec. 5. We did not explicitly discuss claims 43, 47, and 51, but stated that, based on our review of Petitioner’s analysis of these claims, “Petitioner [had] provided sufficient explanation and evidence to support a reasonable likelihood that the additional limitations of these claims [were] described in the '095 patent.” *Id.*

In light of Patent Owner’s Request for Rehearing, we have reconsidered the arguments made in the Preliminary Response with respect to claims 43, 47, and 51. We are not convinced, however, of error in our determination that Petitioner provided sufficient explanation and evidence to support a reasonable likelihood that it would prevail on the merits in showing these claims are anticipated by the '095 patent.

1. Claim Interpretation

Before reconsidering the merits of Patent Owner’s arguments, we first address its contention that our decision to institute trial as to claims 43 and 47 was based on erroneous claim interpretations. *See* PO Req. Reh’g 11–12. Claims of an unexpired patent are interpreted using the broadest reasonable construction in light of the specification of the patent. *See* 37 C.F.R. § 42.100(b); *In re Cuozzo Speed Techs., LLC.*, 113 U.S.P.Q.2d 1613, 1621 (Fed. Cir. 2015).

a. Interpretation of Claim 43

Claim 42 recites a step (a) of distilling a mixture comprising water, acetic acid, methyl iodide, methyl acetate, methanol, and at least one permanganate reducing compound (PRC), “to separate the mixture into a plurality of streams, at least one of said streams being a PRC enriched overhead stream comprising dimethyl ether [(‘DME’)].” Ex. 1002, 14:47–

54. “Claim 43 . . . recites that the PRC enriched overhead stream comprises an amount of DME in excess of any DME in the mixture.” Prelim. Resp. 32.

In its Petition, Petitioner argued the claim 43 phrase “wherein said PRC enriched overhead stream comprises an amount of dimethyl ether in excess of any dimethyl ether present in the mixture” should be construed as “a comparison of the wt% of DME in the mixture compared to the wt% of DME in the overhead composition.” Pet. 18 (citing Ex. 1003 ¶ 71). In its Preliminary Response, Patent Owner disagreed with Petitioner’s proposed construction of claim 43, arguing this phrase should be construed as “an increase in the absolute *quantity*, e.g., moles or mass, of DME in the PRC enriched overhead stream.” Prelim. Resp. 16 (arguing that claim 43 captures the concept that DME may be manufactured in the distillation column).

We have considered the language of claim 43 in light of the ’507 patent specification, but are not convinced that the claim construction advanced by Patent Owner represents the broadest reasonable interpretation.

The ’507 patent specification uses the term “amount” in discussing weight percentages and parts per million of components:

[T]he organic iodide promoter is present in the catalyst solution in amounts of from about 2 to about 20 wt %, the methyl acetate is present in amounts of from about 0.5 to about 30 wt %, and the lithium iodide is present in amounts of from about 5 to about 20 wt %. The rhodium catalyst is present in amounts of from about 200 to about 2000 parts per million (ppm).

Ex. 1002, 6:64–7:3.

The presence of DME reduces the solubility of methyl iodide in water, thereby reducing the amount of methyl iodide extracted into aqueous extract streams 64 and 70 and lost in wastewater treatment. By way of example, the applicants observed that the concentration of methyl iodide in stream 64 dropped from about

1.8% when no DME was present to about 0.5% when DME was present.

Id. at 11:34–41.

Petitioner’s interpretation of the claim 43 phrase “wherein said PRC enriched overhead stream comprises an amount of dimethyl ether in excess of any dimethyl ether present in the mixture” as “a comparison of the wt% of DME in the mixture compared to the wt% of DME in the overhead composition” is consistent with the use of the term “amount” in the ’507 patent specification. Pet. 18 (wherein Petitioner indicates its interpretation of the claim 43 term “amount” is based on the use of the term in column 6, line 62 to column 7, line 3 of the ’507 patent specification). Patent Owner has not directed us to, nor do we find, support in the ’507 patent specification for interpreting the argued claim language to require an increase in moles or mass, as opposed to an increase in concentration.

b. Interpretation of Claim 47

Claim 42 recites a step (b) of “extracting the PRC enriched overhead stream with water to produce an aqueous stream comprising said at least one [P]RC, and a raffinate stream comprising methyl iodide.” Ex. 1002, 14:55–58. Claim 47, which depends from claim 42, recites “wherein at least a portion of said raffinate stream is recycled directly or indirectly back into said methanol carbonylation reactor.” *Id.* at 15:37–39.

Petitioner argued the above-quoted claim 47 phrase should be construed as meaning “the liquid stream coming from the extractor which contains the lower water and higher methyl iodide concentration (i.e., the stream that is not the aqueous extract), and that this stream is recycled back to the methanol carbonylation reactor either directly or via other equipment

or process steps (i.e., indirectly).” Pet. 18. Patent Owner argued Petitioner’s proposed construction “render[ed] the term ‘raffinate stream’ meaningless because as soon as a raffinate stream has been processed via ‘other equipment,’ presumably to remove or separate components therefrom, it can no longer reasonably be characterized as a ‘raffinate stream.’” Prelim. Resp. 17. Patent Owner argued the term “indirectly” should be construed as meaning that the raffinate stream is combined with one or more streams prior to being recycled to the reactor. *Id.*; see PO Req. Reh’g 12.

We have considered the language of claim 47 in light of the ’507 patent specification, but are not convinced that the claim construction advanced by Patent Owner represents the broadest reasonable interpretation.

The ’507 patent describes an embodiment in which stream 52 containing PRC’s exits the top of distillation column 22 and is directed to a condenser, followed by overhead receiver 24. Ex. 1002, 10:33–35. The condensed materials exit receiver 24 as stream 54. *Id.* at 10:36–37. A stream exiting receiver 24 is sent through a condenser/chiller, and exiting stream 62 is sent to first extractor 27 where PRC’s and alkyl iodides are extracted with water. *Id.* at 10:49–52. PRC-rich, aqueous extract stream 64 and raffinate stream 66 containing methyl iodide exit extractor 27. *Id.* at 10:58–62. Raffinate stream 66 is extracted with additional water in second extractor 25. *Id.* at 10:63–64. As a result of this extraction, methyl iodide separates from the aqueous PRC’s and alkyl iodide phase. *Id.* at 10:67–11:2. The ’507 patent states that additional extraction stages may be added to further increase the fraction of methyl iodide recovered from the overhead of distillation column 22. *Id.* at 11:11–13. “[R]affinate stream 72 containing methyl iodide” exits extractor 25 and “is normally recycled to the reaction

system and ultimately to the reactor.” Ex. 1002, 11:6–9; *see also id.* at 11:54–56 (“Any DME that is not extracted into the aqueous extract streams 64 and 70 is recycled directly or indirectly to the reaction system, where it reacts with carbon monoxide and water to form acetic acid.”).

The ’507 patent also describes recycling a heavy phase of the stream exiting the top of splitter column 14 “to the reactor or reaction system.” *See id.* at 8:67–9:5. The ’507 patent states that “[a] typical reaction and acetic acid recovery system . . . is shown in FIG. 1 and includes a liquid phase carbonylation reactor, flasher, and a [splitter] column 14” (*id.* at 7:13–17), as well as “[d]istillation systems . . . for recovering the crude acetic acid and recycling catalyst solution, methyl iodide, and methyl acetate to the reactor” (*id.* at 7:32–35).

Petitioner’s interpretation of the claim 47 phrase “wherein at least a portion of said raffinate stream is recycled directly or indirectly back into said methanol carbonylation reactor” as meaning that “the liquid stream coming from the extractor which contains the lower water and higher methyl iodide concentration is recycled back to the methanol carbonylation reactor either directly or via other equipment or process steps,” is consistent with the ’507 patent’s description of recycling streams within the reaction system. Specifically, the ’507 patent describes recycling the raffinate stream “*to the reaction system* and ultimately to the reactor” (Ex. 1002, 11:6–9) (emphasis added), and “directly or indirectly to the *reaction system*” (*id.* at 11:54–56) (emphasis added). The “reaction system” is distinguished from the “reactor,” and is described as including the reactor as well as the other equipment used in the recovery of acetic acid, i.e, the equipment shown in Figure 2. *See* Ex. 1002, 7:13–17, 32–35. Patent Owner argues its proposed

construction of the term “indirectly” as limited to “combining one or more streams with the raffinate portion prior to being recycled to the reactor” is supported by Figure 2 which illustrates a portion of second raffinate 72 being combined with the residue 44 of column 22 prior to being returned to the reactor. Prelim. Resp. 17. Petitioner’s proposed, broader claim construction, however, is also supported by Figure 2 which illustrates raffinate stream 72 being returned to distillation column 22 via line 68.

2. Analysis - claims 43 and 51

Patent Owner argues that “Claim 43 . . . recites that the PRC enriched overhead stream comprises an amount of DME in excess of any DME in the mixture, and Claim 51 recites that DME is formed in the distillation step.” Prelim. Resp. 32. In its Preliminary Response, Patent Owner argued that under the correct construction of claim 43, Petitioner “failed to demonstrate a reasonable likelihood of prevailing in showing inherent anticipation of Claim 43 by the ’095 patent,” because “the mere increase in DME *concentration* . . . alleged in the Miura Declaration falls short of teaching an increase in absolute quantity of DME in the PRC enriched overhead stream relative to the mixture.” *Id.* at 33. Patent Owner requests reconsideration of our decision to institute trial as to claim 43, because “the Board did not construe [claim 43] or provide any explanation as to how Petitioner satisfied its burden concerning this claim.” PO Req. Reh’g 11–12; *see* Init. Dec. 9 (determining no express construction of claim 43 was necessary at the pre-institution stage). Patent Owner argues we mistakenly instituted trial as to claim 51, noting that in our initial decision, we determined the evidence was insufficient to show that the amount of water added to the distillation column in the ’095 patent process would produce DME. PO Req. Reh’g 12–

13.

As indicated in Section I, above, we declined to institute trial as to claims 42–44, 47–51, 53, and 55–57, because we did not find evidentiary support for Petitioner’s argument that DME is inherently present in the overhead streams in the ’095 patent process as required by independent claim 42. *See* Init. Dec. 17–23; Ex. 1002, 14:51–54 (claim 42, step (a): “distilling the mixture to separate the mixture into a plurality of streams, at least one of said streams being a PRC enriched overhead stream comprising dimethyl ether”). In our Rehearing Decision, we acknowledged that we had overlooked the fact that Mr. Cooper identified evidentiary support for the opinions advanced in his declaration. *See* Reh’g Dec. 4. Although we did not discuss explicitly claims 43 and 51 in our Rehearing Decision, we stated that “Petitioner [had] provided sufficient explanation and evidence to support a reasonable likelihood that the additional limitations of these claims [were] described in the ’095 patent.” *Id.* at 5. For example, Petitioner cited paragraphs 97 and 99 of the Cooper Declaration in support of its contention that DME would be present in the ’095 patent reaction mixture and overhead distillation streams. Pet. 24. In our Rehearing Decision, we acknowledged that we overlooked the fact that Mr. Cooper’s testimony was supported by calculations and data in two published articles. Reh’g Dec. 4. In support of its challenge as to claims 43 and 51, Petitioner quoted column 7, lines 25–27 of the ’095 patent, which read: “When distillation for separation is carried out in one distillation column, water may be charged into the distillation column,” Ex. 1010, 7:25–27. Pet. 31, 34. Petitioner cited paragraphs 72, 73, and 75 of the Cooper Declaration in support of its statement that adding water to the distillation step increases DME. *Id.* Petitioner also cited

paragraph 102 of the Cooper Declaration, Pet. 39, wherein Mr. Cooper testified that

[m]ore water creates more catalyst, and adding water at the top of the column allows hydroiodic acid to be formed and be present throughout the column. The expected result is that DME forms where water and methyl iodide are present under distillative conditions, and that the amount of DME can be increased by feeding water to the distillation column.

Ex. 1003 ¶ 102.

Patent Owner has not explained why the above explanation from the Petition and evidence cited therein is insufficient to support Petitioner's contention that the '095 patent process includes adding water to the distillation step in an amount sufficient to produce dimethyl ether from a portion of the mixture during the distillation step as recited in claim 51. Nor has Patent Owner explained why Petitioner's explanation and evidence is insufficient to support Petitioner's contention that the '095 patent process describes a "PRC enriched overhead stream compris[ing] an amount of dimethyl ether in excess of any dimethyl ether present in the mixture," as recited in claim 43, based on the broadest reasonable interpretation of claim 43 (for purposes of our decision to institute trial), as encompassing a comparison of the wt% of DME in the mixture compared to the wt% of DME in the overhead composition.

Therefore, we are not persuaded that we erred in determining Petitioner's arguments and evidence are sufficiently persuasive, at this stage of the proceeding, to establish a reasonable likelihood that Petitioner would prevail in showing the unpatentability of claims 43 and 51 as anticipated by the '095 Patent.

3. *Analysis - claim 47*

Patent Owner maintains that under the correct construction of claim 47, the '095 patent fails to disclose the claim 47 limitation: “wherein at least a portion of said raffinate stream is recycled directly or indirectly back into said methanol carbonylation reactor.” PO Req. Reh’g 12. In its Preliminary Response, Patent Owner argued that

in the '095 patent, the raffinate is distilled to produce multiple different streams. . . . As a result, the raffinate itself *ceases to exist* once it has been introduced into the 80-plate distillation column, and the '095 patent cannot reasonably be viewed as teaching the introduction of “a raffinate stream,” directly or indirectly into the methanol carbonylation reactor.

Prelim. Resp. 37–38. Patent Owner requests reconsideration of our decision to institute trial as to claim 43, because the Board “did not construe this claim term or provide any explanation as to how Petitioner satisfied its burden concerning this claim.” PO Req. Reh’g 12.

In support of its challenge as to claim 47, Petitioner cited column 13, lines 61–67 of the '095 patent, which read: “A raffinate (methyl iodide-rich liquid) which had been refined by removing acetaldehyde was recirculated into the tenth plate from the top of the . . . 80 plate distillation column to thereby recirculate it into the reactor as a bottom withdrawn liquid from the . . . 80 plate[] distillation column,” Ex. 1010, 13:3–9. Pet. 27. Patent Owner argues this disclosure does not meet the claim 47 limitation requiring recycling of a portion of the raffinate stream directly or indirectly back into the reactor, because the raffinate stream is introduced into a distillation column, rather than being returned directly to the reactor or indirectly via combination with other process streams. *See* Prelim. Resp. 17, 37–38.

Patent Owner's argument is not persuasive because it is based on an overly narrow interpretation of the claim language. *See* Section C.1.b. *supra* (wherein we interpreted the claim 47 recycling step as encompassing treating a raffinate stream in other equipment used in the separation process prior to the stream being returned to the reactor). Patent Owner's argument that the raffinate would cease to exist after introduction into the '095 distillation column is unpersuasive, because it lacks evidentiary support, *see* Prelim. Resp. 37, and is also directly contradicted by the quote above (Ex. 1010, 13:3–9) where "it" refers to the raffinate and the '507 patent indicates that recirculation of the raffinate onto the 10th plate serves to "recirculate it into the reactor."

In sum, we are not persuaded of error in our determination that Petitioner's arguments and evidence are sufficiently persuasive, at this stage of the proceeding, to establish a reasonable likelihood that Petitioner would prevail in showing the unpatentability of claim 47 as anticipated by the '095 Patent.

III. CONCLUSION

Patent Owner has not convinced us that we abused our discretion in our decision to institute an *inter partes* review of claims 42–44, 47–51, 53, 55, and 56 based on anticipation by the '095 patent and claim 57 based on obviousness over the '095 patent and JP '712.

IV. ORDER

Patent Owner's request for rehearing is *denied*.

IPR2015-00171
Patent 8,076,507 B2

PETITIONER:

Michael Houston
Jeffrey R. Lomprey
George C. Beck
FOLEY & LARDNER LLP
DAICEL_IPR@FOLEY.COM

PATENT OWNER:

Justin L. Krieger
Joshua B. Pond
Troy A. Peterson
KILPATRICK TOWNSEND & STOCKTON LLP
jkrieger@kilpatricktownsend.com
jpond@kilpatricktownsend.com
tpetersen@kilpatricktownsend.com