

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ADAMA MAKHTESHIM LTD.,
Petitioner,

v.

FINCHIMICA S.P.A.,
Patent Owner.

Case IPR2016-00577
Patent 8,304,559 B2

Before RICHARD E. SCHAFER, SALLY GARDNER LANE, and
DEBORAH KATZ, *Administrative Patent Judges*.

LANE, *Administrative Patent Judge*.

DECISION
Institution of *Inter Partes* Review
37 C.F.R. § 42.108

I. INTRODUCTION

A. *Background*

On 5 February 2016, Adama Makhteshim Ltd. (“Petitioner”) filed a Petition (Paper 2, “Pet.”) to institute an *inter partes* review of all of the claims, claims 1–12,¹ of U.S. Patent No. 8,304,559 B2 (’559 patent (Ex 1001)). Finchimica S.P.A. (“Patent Owner”) filed a Preliminary Response (Paper 6, “Prelim. Resp.”). After considering the Petition and Preliminary Response, we conclude, under 35 U.S.C. § 314(a), that Petitioner has established a reasonable likelihood that it would prevail as to claims 1–12. Accordingly, we institute an *inter partes* review of these claims.

B. *Related Matters*

According to the parties, they are involved in litigation² where the Patent Owner has alleged that the Petitioner infringed and will continue to infringe the ’559 patent. The parties indicate that this complaint was filed in December of 2014. Petitioner represents that it was served with the complaint in April of 2015. (Pet. at 2–3 and Prelim. Resp. at 1).

Interference 105,995 involving the ’559 patent and Petitioner application 13/926,389 was declared on 6 February 2014. (Interference 105,995, Paper 1 (Ex 1022), Declaration). In the interference, the Board entered judgment against junior party, Levin, who we understand to be the Petitioner here. (Pet. at 3 (indicating that Petitioner was a party in the interference) and Interference 105,995,³ Paper 260, Judgment and Paper 259

¹ Patent Owner statutorily disclaimed claims 13–15 of the ’559 patent so now the patent contains only claims 1–12. (Interference 105,995, Paper 26 (Ex. 1025)).

² The litigation is said to be styled *Finchimica S.P.A. v. Adama Makhteshim Ltd et al* (1:14-cv-01516). (Pet. at 2).

³ The interference is styled ANAT LEVIN and MICHAEL GRABARNICK, Junior Party, (Application 13/926,389) [Petitioner] v.

(Ex 2002) Decision on Priority and Other Motions).⁴

An application for the reissue of the '559 patent is pending before the USPTO. The examination of this application remains suspended. (Reissue application 14/534,001, filed 5 November 2014, at Paper entered 23 March 2016).

C. Evidence Relied Upon

Petitioner relies on the following references:

European Patent 0295117 B (EP '117) (Ex 1002).

PCT International Publication WO 2007/122440 A1 (Gharda) (Ex 1004).

Chinese Patent Application Publication 101250158 A (CN '158) (Ex 1003).

Israeli Patent 68284 A (IL '284) (Ex 1005).

US Patent 6,013,761 (Zierer) (Ex 1006).

Petitioner also relies on the declaration of Dr. Gordon Gribble. ("Gribble Decl." (Ex 1010)). Based on his education and professional experience (*see* Gribble Decl. at ¶¶ 1–3, and *curriculum vitae* (Ex 1011)), Dr. Gribble appears qualified to testify about issues raised in the Petition. We have considered Dr. Gribble's testimony in determining whether Petitioner has established a reasonable likelihood that Petitioner would prevail. We recognize that the testimony has not been subject to cross-examination and that any subsequent cross-examination might change how we later view

ANDREA PASTORIO and PAOLO BETTI Senior Party, (Patent 8,304,559) [Patent Owner].

⁴ Petitioner requested rehearing of the Judgment and underlying Decision on Priority and Other Motions but the Judgment and Decision were not modified. (Interference 105,995, Paper 262, Request and Paper 271, Decision on Rehearing).

Dr. Gribble's declaration testimony.

D. The Asserted Grounds

Petitioner asserts the following four grounds for challenge of the patentability of the '559 claims (Pet. 6):

1. Ground 1: Claims 1–12 of the '559 Patent are unpatentable under 35 U.S.C. § 103(a) as obvious over EP '117 in view of Gharda, and further in view of CN '158 for claims 11 and 12 only.
2. Ground 2: Claims 1–12 of the '559 Patent are unpatentable under 35 U.S.C. § 103(a) as obvious over CN '158 in view of IL '284.
3. Ground 3: Claims 1–12 of the '559 Patent are unpatentable under 35 U.S.C. § 103(a) as obvious over EP '117 in view of Zierer, and further in view of CN '158 for claims 11 and 12 only.
4. Ground 4: Claims 1–12 of the '559 Patent are unpatentable under 35 U.S.C. § 102(b) as anticipated by Gharda. According to Petitioner this is a "Contingent Challenge."

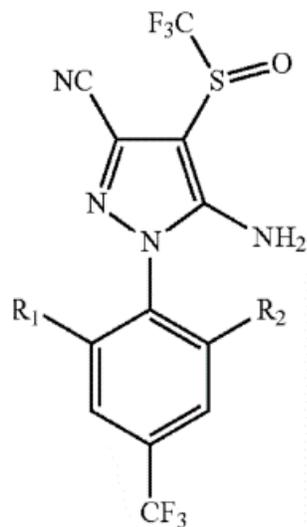
(Pet. at 6).

E. The '559 Patent Claims

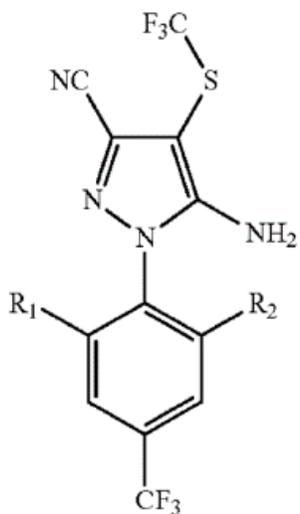
The '559 claims are directed to a method of making the compounds of formula I, which includes a method of making the insecticidal compound fipronil.

Claim 1 of the '559 patent is the only independent claim. It reads:

1. A method for the preparation of the compound having the following general formula (I):



wherein R1 and R2 are independently hydrogen or halogen; through oxidation of a compound having the general formula (II) in the presence of dichloroacetic acid and of an oxidising agent:



wherein R1 and R2 are defined as above, where the oxidising agent is selected from the group comprising benzoyl peroxides, sodium peroxides, t-butyl peroxides and/or hydrogen peroxide, and wherein the oxidation is conducted in the absence of trichloroacetic and/or trichloroperacetic acid.

We interpret claims of an unexpired patent using the broadest reasonable construction in light of the specification of the patent in which

the claims appear. *See* 37 C.F.R. § 42.100(b); *In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268, 1278 (Fed. Cir. 2015), *cert. granted sub nom. Cuozzo Speed Techs. LLC v. Lee*, 136 S. Ct. 890 (mem.) (2016).

All the challenged claims are directed to a method of making compound I, through the oxidation of compound II, in the presence of dichloroacetic acid (DCA) and an oxidizing agent which is selected from the group comprising benzoyl peroxides, sodium peroxides, t-butyl peroxides and/or hydrogen peroxide. The claims do not require that DCA perform any particular function in the claimed reaction. For example the claims do not require that DCA react with the claimed oxidizing agent.⁵ Because “comprising” is an open phrase it opens the “group” of the claim to oxidizing agents other than those listed, including those additional ones and combinations set forth in the ’559 specification at, e.g., column 8, lines 59–61.⁶ The ’559 claims provide that the oxidation is conducted in the absence of trichloroacetic (TCA) “and/or” trichloroperacetic acid (TCPA). Because of the “and/or” proviso, the ’559 claims allow for, but do not require, the exclusion of both TCA and TCPA. Put another way, due to the “and/or” in the proviso, the oxidation may be in the absence of both TCA and TCPA or in the absence of either TCA or TCPA.⁷ No other components are excluded from the claimed method.

Within two of the four grounds of unpatentability alleged, the

⁵ This construction is consistent with the construction given the ’559 claims in Interference 105,995. (Interference 105,995, Paper 259 (Ex 2002), Decision on Priority and Other Motions at 16 and Paper 271, Decision on Rehearing at 3–4).

⁶ This construction is consistent with the construction given the ’559 claims in Interference 105,995. (Interference 105,995, Paper 144(Ex 1028), Decision on Motions, at 16).

⁷ This construction is consistent with the construction given the ’559 claims in Interference 105,995. (Interference 105,995, Paper 259 (Ex 2002), Decision on Priority and Other Motions at 15–16).

Petitioner relies upon an additional reference to support further the alleged unpatentability of claims 11 and 12. These claims are:

11. The method according to claim 1, further comprising a step of recovering the non-oxidised compound having the general formula (II).
12. The method according to claim 11, wherein the step of recovering comprises a step of dissolving and subsequently recrystallising the compound having the general formula (I) with one or, more of the solvents selected from the group comprising toluene, xylene, chlorobenzene, chlorinated aliphatic solvents and isopropanol.

II. ANALYSIS

A. *Patent Owner Preliminary Response*

1. Estoppel under 37 C.F.R. § 41.127(a)

Before discussing the specific grounds of unpatentability alleged in the Petition, we have considered whether, as asserted in the Patent Owner Preliminary Response, Petitioner is subject to estoppel under 37 C.F.R. § 41.127(a) for any of the four asserted grounds of unpatentability. We determine that Petitioner is estopped as to grounds 2 and 4.

During the interference, Petitioner proposed to file motions asserting unpatentability of the '559 claims and asked to rely upon, *inter alia*, the following references, that also are relied upon in the Petition, to support the proposed motions: Gharda (grounds 1 and 4), CN '158 (grounds 1–3), EP '117 (grounds 1 and 3), and Zierer (ground 3).

At no time during the interference did Petitioner seek authorization to file a motion asserting unpatentability that would rely upon IL '284, a reference that is relied upon in the Petition to support ground 2. (*See* Interference 105,995, Paper 21 (Ex 1023), Levin Motions List, at 3:3–4:8,

Paper 38 (Ex 1026), Order Setting Times, at 4:12-15, and Paper 155 (Ex 1029), Order Authorizing Motion).

During the interference, Petitioner was authorized to file a single motion asserting unpatentability of the '559 claims on the basis that the claims are anticipated or were rendered obvious by Gharda. (Paper 155 (Ex 1029), Order Authorizing Motion, at 2:19–22). In authorizing the single motion for unpatentability the Board noted that, although Petitioner was not authorized to file a motion asserting unpatentability over other art raised, “other proceedings with the Office may provide opportunities.” (Interference 105,995, Paper 155 (Ex 1029), Order Authorizing Motion, at 3:16–18).⁸

Petitioner filed the authorized motion for unpatentability, Levin Motion 4, relying upon Gharda and that motion was denied. (Interference 105,995, Paper 175 (Ex 1030), Levin Motion 4 and Paper 259 (Ex 2002), Decision on Priority and Other Motions, at 19). Petitioner was not authorized to file any other motion asserting unpatentability of the '559 claims over prior art during the 105,995 interference.

A judgment in an interference disposes of all issues that were, or by motion could have properly been, raised and decided. A losing party who could have properly moved for relief on an issue, but did not so move, may not take action in the Office after the judgment that is inconsistent with that party's failure to move. 37 C.F.R. § 41.127(a). Therefore, if a losing party in an interference filed a motion that was denied during the interference, that party is estopped from seeking the relief it sought in the denied motion in another proceeding before the office. Furthermore, if a losing party failed to

⁸ While we agree with Patent Owner that the Board's statement in the Order Authorizing Motion does not amount to a ruling that estoppel would not apply (Prelim. Resp. at 20), we consider the statement in making our determination of whether Levin properly could have moved for the relief sought in its Petition during the interference.

raise an issue that it properly could have raised during the interference, it may not later raise that issue in another proceeding before the Office. If a party timely raises an issue but that issue is not decided during the interference, then estoppel does not apply. For example, if a party proposes to file a motion for relief on an issue but it is not authorized to file the motion, then the party could not have moved properly and estoppel does not apply for this issue.

Below we discuss whether estoppel under § 41.127(a) applies as to each of the four grounds for unpatentability asserted in the Petition.

a. Ground 1:

Ground 1 relies upon EP '117, Gharda and CN '158. Since Petitioner proposed (but was not authorized) to file a motion asserting unpatentability on the basis of EP '117, Gharda, and CN '158, there is no § 41.127(a) estoppel on ground 1. Petitioner raised this patentability issue during the interference but could not have properly moved for relief on the basis of ground 1 because it was not authorized to file a motion for unpatentability of the '559 claims on the basis of these references. In particular, Petitioner proposed, but was not authorized to file, a motion based on the combination of EP '117 and Gharda. (Paper 21 (Ex 1023), Levin Motions List, at 3:21–4:3, Paper 38 (Ex 1026), Order Setting Times, at 4:12-15). Petitioner later proposed, but was not authorized to file, a motion based on the combination of CN '158 and Gharda. (Paper 155 (Ex 1029), Order Authorizing Motion, at 3:8) We determine that as Petitioner raised the issue of unpatentability over these references, even where not raised in precisely the same combination as now asserted, there is no § 41.127(a) estoppel in these particular circumstances.

b. Ground 2:

Ground 2 relies upon CN '158 and IL '284. Petitioner did not raise IL '284 during the interference by proposing to file a motion asserting unpatentability of the '559 claims relying on IL '284. Because Petitioner did not raise the issue of patentability of the '559 claims over IL '284 during the

interference even though the issue could have been raised, Petitioner, as losing party in the interference, is estopped under § 41.127(a) from raising a patentability issue that relies upon IL '284.

c. Ground 3:

Ground 3 relies upon EP '117, Zierer, and CN '158. As with ground 1, Petitioner sought authorization, but was not authorized, to file a motion relying upon these references. Petitioner raised the issue of patentability of the '559 claims over EP '117, Zierer, and CN '158 during the interference but Petitioner could not have properly moved for relief on the basis of the challenge raised at ground 3 because it was not authorized to file a motion for unpatentability of the '559 claims on the basis of these references. There is no § 41.127(a) estoppel as to ground 3.

d. Ground 4:

As Petitioner acknowledges, ground 4, i.e., unpatentability under 35 U.S.C. §103(a) over Gharda, was presented in the interference as Levin Motion 4. Petitioner states that ground 4 is contingent on the Board not fully considering, or dismissing, Levin Motion 4. After the Petition was filed, the Board fully considered and denied Levin Motion 4. Estoppel under § 41.127(a) prevents Petitioner from proceeding on ground 4 as the patentability challenge raised in ground 4 was already decided in the interference.

Patent Owner argues that Petitioner relied upon additional references now relied upon and beyond Gharda in Levin Motion 4 and that Petitioner should be estopped as to grounds relying upon these additional references. While we agree that Levin attempted to rely upon additional references, it was not permitted to do so. In its Decision denying Levin Motion 4, the Board specifically stated that “[w]here Levin’s arguments in its Motion 4 rely upon prior art references other than Gharda, including those listed above [which includes CN '158 and Zierer], to show the Pastorio claims to be unpatentable,

we have not considered those arguments.” Interference 105,995, Paper 259 (Ex 2002) Decision on Priority and Other Motions, at 14–15). Accordingly the issue of patentability over these additional references, while raised by Petitioner, was not decided during the interference and there is no estoppel as to the issue of patentability of the ’559 claims over these references.

Patent Owner argues that because patentability is a single issue for purposes of estoppel, Petitioner should be estopped under § 41.127(a) as to all four grounds asserted in the Petition instead of only grounds 2 and 4 as we have determined. Patent Owner argues that even if the Petition raises different grounds for unpatentability than those that were raised and decided during the interference, estoppel still applies because the single issue of patentability was decided in the interference. In support of its argument Petitioner directs us to a number of district court cases where it is argued that issue preclusion was applied to prevent a party from raising any further patentability challenges not raised during an earlier proceeding. (Prelim. Resp. at 16–17).

The estoppel created by 37 C.F.R. § 41.127(a) applies only to proceedings within the USPTO. To the extent the cases cited by Patent Owner can be seen, by analogy, to apply to a determination of whether estoppel under § 41.127(a) applies in the present situation, we are not convinced that these cases present facts sufficiently analogous to the ones before us. In particular, Patent Owner has not explained why this type of issue preclusion applies in the present circumstances where the Petitioner sought, but was not given, authorization to file a motion addressing issues raised in grounds 1 and 3 and was advised that it might seek out remedies elsewhere within the USPTO as to these issues. Instead, for example, in *Evonik Degussa GmbH Inc. v. Materia Inc.*, cited by Patent Owner, the party against whom estoppel was applied had purposely chosen not to raise any prior art patentability challenges during the interference. *Evonik Degussa*

GmbH Inc. v. Materia Inc., 53 F. Supp. 3d 778, 794 (D. Del. 2014) (“Materia does not dispute that it chose not to raise §§ 102 and 103 challenges during the Interference” so as to not “vitiating the very rights being fought over.”).

In the cited *Roche Palo Alto LLC v. Apotex, Inc.*, a party was not permitted to assert invalidity on grounds not ruled upon in the earlier proceeding because plaintiff had a “full and fair opportunity” to raise the ground in the earlier proceeding but did not do so in a timely manner. *Roche Palo Alto LLC v. Apotex, Inc.*, 526 F. Supp. 2d 985, 989, 993–1000 (N.D. Cal. 2007) (“Defendants presumably are referring to this Court’s May 23, 2003 *in limine* order in [another case involving the same parties and subject matter], issued approximately ten days before trial, which barred Defendants from asserting obviousness type double patenting or best mode arguments because such theories were not disclosed until the eve of trial, prejudicing Plaintiffs.”). Here we do not determine that Petitioner waited too late in the interference to raise the patentability issues asserted in grounds 1 and 3. At no time during the interference did the Board include a lack of timeliness as a reason for denying Petitioner authorization to file a motion asserting unpatentability over prior art. (Interference 105,995, Paper 21 (Ex. 1023), Levin Motions List at 3:3–4:8, Paper 38 (Ex. 1026), Order Setting Times at 4:12-15, and Paper 155 (Ex. 1029), Order Authorizing Motion).

We have considered the other cases cited by Patent Owner regarding issue preclusion but do not find these cases to show that there is a basis for estoppel under 37 C.F.R. § 41.127(a) other than as we held above regarding grounds 2 and 4.

2. 35 U.S.C. § 325(d)

Patent Owner further argues that the Board should exercise its discretion under 35 U.S.C. § 325(d) and “reject the petition...because the same or substantially the same prior art or argument were presented in the Office.”

(Prelim. Resp. at 21). We are not persuaded that, as to grounds 1–3, the arguments raised in the Petition are substantially the same as the arguments Petitioner made in the interference such that we will exercise our discretion to reject the petition under § 325(d).

In the interference Petitioner was authorized to file a motion relying upon Gharda alone to support its contention that the '559 claims are unpatentable under 35 U.S.C. § 102 or § 103. Three of the four grounds of challenge presented in the Petition rely upon references other than Gharda to show unpatentability of the '559 claims. We find that the additional references now relied upon add to, and are not repetitive of, the teachings of Gharda as discussed further below. Accordingly we are not persuaded, at least as to ground 1, that the Office has considered the arguments and prior art presented in the Petition so that we choose to exercise our discretion to reject the petition under § 325(d).

As to ground 4, we have taken into account that the same arguments and prior art were previously presented to the Office during Interference 105,995. Thus we do not proceed on ground 4 for the further reason that we exercise our discretion to reject this ground of the Petition as provided for by 35 U.S.C. § 325(d).

B. Remaining grounds

Above we addressed the Patent Owner's arguments urging that we should reject the Petition as to all grounds based on § 41.127(a) estoppel and 35 U.S.C. § 325(d). In its Preliminary Response, Patent Owner does not argue against the substance of any of the grounds of challenge asserted by Petitioner.

We determine that Petitioner is estopped under § 41.127(a) as to patentability challenges raised at grounds 2 and 4 and review will not be instituted as to these grounds. We turn to the two remaining grounds, grounds 1 and 3, below.

1. Ground 1: Claims 1–12 of the '559 Patent are unpatentable under 35 U.S.C. § 103(a) as obvious over EP '117 in view of Gharda, and further in view of CN '158 for claims 11 and 12 only.

The legal question of obviousness is resolved on the basis of certain underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) objective evidence of nonobviousness, i.e., secondary considerations. *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). “[T]here must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). Thus, to show obviousness Petitioner must provide some reason as to why a person of ordinary skill would have combined or modified the prior art to achieve the patented invention. *See Innogenetics, N.V. v. Abbott Labs.*, 512 F.3d 1363, 1374 (Fed. Cir. 2008).

Petitioner argues that EP '117 teaches all the features of claim 1 except for the use of DCA as a solvent. In particular Petitioner points to portions of EP '117, including example 1 (p. 15) showing the formation of fipronil through the oxidation of compound II (“the sulfide precursor”) using m-chloroperbenzoic acid (mCPBA) as an oxidant in the solvent dichloromethane (DCM)⁹ where no TCA or TCPA is present. Petitioner notes that instead of DCA as called for by the '559 claims, EP '117 teaches using the solvent dichloromethane (DCM). (Pet. at 20–21).

Petitioner argues that one skilled in the art would have been motivated to replace DCM with DCA given Gharda’s disclosure of both DCM and DCA as preferred solvents for oxidizing the same sulfide precursor as is used in

⁹ We understand DCM to be another name for methylene chloride, the latter being used in the Gharda reference.

EP '117. According to Petitioner another reason to replace DCM with DCA in the EP '117 method is Gharda's teaching that both DCM and DCA act as melting point depressants for the TCA which is said to be solid under the room temperature condition of oxidation.¹⁰ (Pet. at 24–25, citing to Gharda at 7 and Gribble Decl. at ¶ 98). Petitioner notes that the oxidant mCPBA, used in EP '117, also is solid at room temperature. (Petition at 23, citing Thermo Fischer Scientific technical data sheet for mCPBA (Ex 1020)).

In deciding whether it would have been obvious to replace DCM with DCA in the EP '117 method we consider whether a person of ordinary skill would have had reason to select DCA as a predictable variation of the taught solvent, DCM. *KSR v. Teleflex Inc.*, 550 U.S. 398, 1740 (2007). On the record before us, Petitioner has provided such a reason.

We conclude that there is a reasonable likelihood that Petitioner would prevail as to independent claim 1.

Petitioner also points to portions of EP '117 and Gharda appearing to show the limitations of dependent claims 2–12. (Pet. at 25–30). Dr. Gribble's testimony supports the Petitioner's arguments as to these dependent claim limitations. (Gribble Decl. at ¶¶ 149–177). We conclude that, for reasons stated in the Petition and Dr. Gribble's testimony, Petitioner has provided a reason why each of the dependent claims 2–12 would have been obvious over EP '117 and Gharda.

As to claims 11 and 12 Petitioner further relies on the teachings of CN '158 which appear to show, in the context of producing fipronil, the claimed steps of recovering the non-oxidized compound and purification by recrystallization using isopropanol as a solvent. (Pet. at 30–32). The testimony of Dr. Gribble supports Petitioner's arguments regarding the

¹⁰ Gharda discloses a preferred reaction temperature of about 20 degrees C. (Gharda at 9:4-8).

dependent claim limitations of claims 11 and 12. (Gribble Decl. at ¶¶ 172–176). We conclude that, for reasons stated in the Petition and Dr. Gribble’s testimony, Petitioner has provided reason why dependent claims 11 and 12 would have been obvious over EP ’117, Gharda and CN ’158.

Thus, upon consideration of the record before us only, we conclude that Petitioner has shown a reasonable likelihood that Petitioner would prevail on the first ground presented as to dependent claims 2–12.

2. Ground 3: Claims 1–12 of the ’559 Patent are unpatentable under 35 U.S.C. § 103(a) as obvious over EP ’117 in view of Zierer and further in view of CN ’158 for claims 11 and 12 only.

Petitioner indicates that Zierer adds to the art already relied upon in ground 1 because it shows that DCA in mixture with hydrogen peroxide acts as an oxidant for oxidizing sulfides. (Pet. at 43). Petitioner indicates that this challenge relies on the Board accepting the construction of “in the presence of [DCA]” that was advanced by Patent Owner in Interference 105,995 but contested by Petitioner. In particular, in the interference Patent Owner urged a construction that would require that DCA in combination with an oxidizing agent such as hydrogen peroxide reacts to form the oxidizing agent dichloroperacetic acid (DCPA) which in turn acts as an oxidant for the conversion of the compound of formula II to fipronil. (Pet. at 13, citing, e.g., Interference 105,995, Paper 227 (Ex 1035), Levin Opposition 4 at 4:5–5:8).

We do not accept the construction urged by Patent Owner during the 105,995 interference and instead conclude, consistent with our decision in the interference, that the claims do not require that DCA perform any particular function (Interference 105,995, Paper 259 (Ex. 2002)), Decision on Priority and Other Motions at 16 and Paper 271, Decision on Rehearing, at 3–4). This third ground only adds to ground 1 if the Board accepts the construction urged by Patent Owner during the interference. As we do not accept this

construction, we determine that ground 3 is unnecessary and redundant to ground 1.

We do not proceed on the basis of ground 3.

III. CONCLUSION

Petitioner has established a reasonable likelihood that claims 1–12 are unpatentable. We have not yet made a final determination of the patentability of these claims or the construction of any claim term.

IV. ORDER

For the reasons given, it is:

ORDERED that *inter partes* review is instituted on the following ground only:

1. Claims 1–12 of the '559 Patent are unpatentable under 35 U.S.C. § 103(a) as obvious over EP 0295117 B in view of WO 2007/122440 A1 and further in view of CN 101250158 A for claims 11 and 12 only.

FURTHER ORDERED that the trial is limited to the ground identified above, and no other ground is authorized; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(a), *inter partes* review of U.S. Patent No. 8,304,559 is hereby instituted commencing on the entry date of this Order, and pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial.

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