UNITED STATES DISTRICT COURT
DISTRICT OF DELAWARE

Evonik Degussa GmbH,	:	
	:	Civil Action No.
	:	09-cv-636 (NLH/JS)
Plaintiff,	:	(consolidated with
v.	:	10-cv-200)
	:	
Materia Inc.,	:	**AMENDED OPINION**
Defendant.	:	
	:	

Hillman, District Judge.[1]

This matter concerns a patent infringement action. Before the Court are six motions for partial summary judgment, a motion to strike, and one Daubert motion[2] filed by the parties, Plaintiff Evonik Degussa GmbH ("Evonik") and Defendant Materia, Inc. ("Materia"). The Court held oral argument on October 5, 2015 and December 11, 2015.

I. JURISDICTION

This Court exercises subject matter jurisdiction pursuant

[1] United States District Court Judge for the District of New Jersey, sitting by designation.

[2] At oral argument, the parties requested that the Court stay Materia's Motion to Exclude Cameron K. Weiffenbach from Offering Opinions Regarding Patent Practice and Procedure [D.I. 574] until a later date. The Court will deny this motion without prejudice. If Materia wishes to reactivate this motion, it may do so by filing a letter.

to 28 U.S.C. § 1331, federal question jurisdiction, and 28 U.S.C. § 1338(a), federal jurisdiction for matters arising under federal patent law.

II. BACKGROUND

A. The Patents

The Court previously set forth the factual background of this case in its Markman Opinion dated September 30, 2013. Accordingly, the Court sets forth herein only those facts relevant to the present motions.

There are three patents at issue in this matter: (1) Evonik's U.S. Patent No. 7,378,528 ("'528 Patent"); (2) Evonik's U.S. Patent No. 7,652,145 ("'145 Patent"); and (3) Materia's U.S. Patent No. 7,622,590 ("'590 Patent"). The '528 Patent was issued was issued to Wolfgang Anton Herrmann, Wolfgang Schattenmann, and Thomas Weskampp on May 27, 2008, and subsequently assigned to Evonik. The '145 Patent was issued to Herrmann, Schattenmann, and Weskampp on January 26, 2010, and assigned to Evonik. The '528 Patent is a divisional patent of the '145 Patent. The '590 Patent was issued to Steven P. Nolan and Jinkun Huang on November 24, 2009 and was assigned to former Third-Party Plaintiff, The University of New Orleans Foundation

("UNOF").

B. The Subject Matter

The subject matter of the patents relate to the facilitation of chemical reactions, particularly olefin metathesis catalyst reactions. The patented catalysts all contain a central atom, ruthenium ("Ru"), that is double bonded to a carbon ("C") atom ("Ru = C"). In addition to the double bonds with the carbon atom, ligands are also attached to the ruthenium atom. The ruthenium catalyst causes the double bond of the carbon atom to break, resulting in an olefin metathesis reaction. The chemical reaction facilitated by the use of the particular catalyst at issue has been influential in the area of pharmaceutical, petrochemicals, and specialty chemicals.

C. Procedural History

Evonik brought this action against Materia on August 26, 2009, alleging that Materia infringed upon the '528 Patent assigned to Evonik. Subsequently, on March 11, 2010, Evonik brought another patent infringement suit against Elevance Renewable Sciences, Inc. ("ERS"), which included allegations that ERS and Materia both infringed upon the '528 Patent and '145 Patent.[3] Following the consolidation, and in response to

[3] ERS subsequently settled its dispute with Evonik and

Evonik's second complaint, Materia joined UNOF as a third-party, and the two filed a counterclaim against Evonik alleging (1) invalidity and unenforceability of Evonik's '145 Patent; (2) unenforceability of Evonik's '528 Patent; (3) and infringement and willful infringement of the '590 Patent that had been assigned to UNOF and licensed to Materia. In responding to Materia's counterclaim, Evonik alleged invalidity and unenforceability of Materia's '590 Patent.

Subsequently, the Court heard argument on the issue of claim construction in a Markman hearing held on July 20, 2011. Based on the hearing and extensive briefs filed on the issue, the Court issued its Markman Opinion, in which it resolved the meaning of several disputed terms in the patent claims at issue.[4]

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is no longer a party to the present lawsuit.

[4] Specifically, in the Markman Opinion, the Court construed: (1) the term "N-heterocyclic carbene" or "NHC" in the '528 Patent and '145 Patent as: "a carbene having a molecular structure that comprises at least one ring containing at least one nitrogen atom in the ring;" (2) the term "and" in the '528 Patent and '145 Patent as R1, R2, R3, and R4 in the Formulae II, III, IV and V may be identical or different to one another, and may each be a hydrogen or a hydrocarbon. Additionally, R3 and R4 may also be halogen, nitro, nitroso, alkoxy, aryloxy, amido, carboxyl, carbonyl, thio or sulfonyl. R3 and R4 may not, however, be both a hydrogen or hydrocarbon and also a halogen, nitro, nitroso, alkoxy, aryloxy, amido, carboxyl, carbonyl, thio or sulfonyl; (3) the term "neutral electron donor" in the '145 Patent as: "an uncharged molecular groups that tends to transfer electron density from a lone electron

Following the issuance of the Markman Opinion, third-parties UNOF and the University of New Orleans Research and Technology Foundation ("UNORTF") filed a motion pursuant to Federal Rule of Civil Procedure 21 to be dropped as parties from this litigation. The Court granted the motion in an Order dated September 30, 2013.

On October 2, 2013, Evonik filed a motion for partial summary judgment against Materia based on issue preclusion and claim preclusion concerning the '145 and '528 Patents. The Court denied Evonik's motion, except to the extent Evonik sought to preclude Materia's validity claims based on 35 U.S.C. §§ 102 and 103. On July 16, 2014, Evonik filed a motion for reconsideration. The Court granted Evonik's motion but denied without prejudice Evonik's request that the Court find that Materia is precluded from raising § 112 validity challenges to the '145 Patent.

III. SUMMARY JUDGMENT STANDARD

Summary judgment is appropriate where the Court is

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pair to another separate atom or molecular group;" and (4) the term "aryl" in the '590 Patent as: "an aromatic hydrocarbon in which at least one hydrogen has been removed."

satisfied that "'the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a judgment as a matter of law.'" Celotex Corp. v. Catrett, 477 U.S. 317, 322, 106 S.Ct. 2548, 91 L.Ed.2d 265 (1986) (citing Fed.R.Civ.P. 56). An issue is "genuine" if it is supported by evidence such that a reasonable jury could return a verdict in the nonmoving party's favor. Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 248, 106 S.Ct. 2505, 91 L.Ed.2d 202 (1986). A fact is "material" if, under the governing substantive law, a dispute about the fact might affect the outcome of the suit. Id. "In considering a motion for summary judgment, a district court may not make credibility determinations or engage in any weighing of the evidence; instead, the nonmoving party's evidence 'is to be believed and all justifiable inferences are to be drawn in his favor.'" Marino v. Indus. Crating Co., 358 F.3d 241, 247 (3d Cir. 2004) (citing Anderson, 477 U.S. at 255).

Initially, the moving party bears the burden of demonstrating the absence of a genuine issue of material fact. Celotex, 477 U.S. at 323 ("[A] party seeking summary judgment

always bears the initial responsibility of informing the district court of the basis for its motion, and identifying those portions of 'the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any,' which it believes demonstrate the absence of a genuine issue of material fact." (citation omitted); see also Singletary v. Pa. Dept. of Corr., 266 F.3d 186, 192 n.2 (3d Cir. 2001) ("Although the initial burden is on the summary judgment movant to show the absence of a genuine issue of material fact, 'the burden on the moving party may be discharged by "showing"—that is, pointing out to the district court—that there is an absence of evidence to support the nonmoving party's case' when the nonmoving party bears the ultimate burden of proof.") (citing Celotex, 477 U.S. at 325).

Once the moving party has met this burden, the nonmoving party must identify, by affidavits or otherwise, specific facts showing that there is a genuine issue for trial. Celotex, 477 U.S. at 324. A "party opposing summary judgment may not rest upon the mere allegations or denials of the ... pleading [s.]" Saldana v. Kmart Corp., 260 F.3d 228, 232 (3d Cir. 2001) (internal quotations omitted). For "the non-moving party[ ] to prevail, [that party] must 'make a showing sufficient to

establish the existence of [every] element essential to that party's case, and on which that party will bear the burden of proof at trial.'" Cooper v. Sniezek, 418 F. App'x 56, 58 (3d Cir. 2011) (citing Celotex, 477 U.S. at 322). Thus, to withstand a properly supported motion for summary judgment, the nonmoving party must identify specific facts and affirmative evidence that contradict those offered by the moving party. Anderson, 477 U.S. at 256–57.

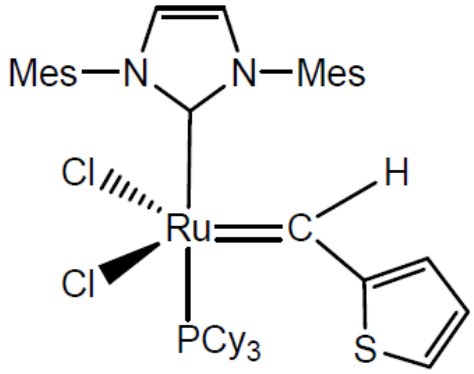
IV. ANALYSIS[5]

A. Evonik's Motion for Partial Summary Judgment that Evonik Does Not Infringe the '590 Patent [D.I. 552]

The first dispute concerns whether Materia admitted that there was no literal infringement as to the '590 Patent in its Rule 36 Admissions. Evonik's Request for Admission No. 220 stated:

> The catalyst shown below, which is designated RF2 by Evonik, is not within the scope of the '590 Patent. [Cy = cyclohexyl]

[5] On October 3, 2014, Evonik moved for partial summary judgment that certain Materia products literally infringe the '528 and '145 Patents [D.I. 550]. Materia conceded these literal infringements and Evonik's motion was granted. See Oct. 20, 2015 Order [D.I. 641].



Evonik Br. at 9 [D.I. 553] (citing Ex. I, RFA No. 220).

Materia's response was as follows:

> Subject to and without waiving the General Objections, Materia admits that the catalyst shown in the Request is not within the scope of any claim of the '590 patent based on the Court's construction of "aryl" in its September 30, 2013 Markman Order, which Materia respectfully disagrees with. Notwithstanding the foregoing, Materia further admits that the catalyst is within the equivalent scope of at least one claim of the '590 patent.

Materia argues its admission of non-infringement was limited to one of its two theories of literal infringement – that Evonik's products contain a group that falls within the definition of the term "aryl" as used in the '590 Patent claims. This was the argument the Court rejected in its Markman decision when it construed "aryl" not to include "heteroaryl." Materia contends its answer left open the argument that Evonik also literally infringed the '590 Patent with non-aryl substituents for R and

R^1, namely, a "C_1-C_{20} alkyl . . . substituted with a functional group." Materia further argues Evonik knew of the "alkyl substituted with a functional group" argument and should have applied this caveat to Materia's admission. In support of this argument, Materia points to a footnote in a November 30, 2010 Joint Claim Construction Statement and another footnote in a declaration submitted three months earlier and notes that Evonik responded to this alternative argument on September 15, 2010 in its non-infringement contentions. Materia does not argue that Evonik's question was vague or ambiguous and does not move to amend or withdraw its admission.

Under Federal Rule of Civil Procedure 36, "[a] party may serve on any other party a written request to admit, for purposes of the pending action only, the truth of any matters within the scope of Rule 26(b)(1) relating to: (A) facts, the application of law to fact, or opinions about either[.]" Fed. R. Civ. P. 36(a)(1)(A). "A matter admitted under this rule is conclusively established unless the court, on motion, permits the admission to be withdrawn or amended." Fed. R. Civ. P. 36(b). Further, "Rule 36 admissions are conclusive for purposes of the litigation and are sufficient to support summary judgment." Langer v. Monarch Life Ins. Co., 966 F.2d 786, 803 (3d Cir. 1992). A Rule 36 admission is

> [a] studied response, made under sanctions against easy denials, to a request to assert the truth or falsity of a relevant fact pointed out by the request for admission.... [T]he presence of the party's oath in both instances, with its sanction of the penalty for perjury, does not make an admission of a request the same in all respects as sworn testimony. For requests for admission, although answered under the oath of a party, are normally made under the direction and supervision of counsel, who has full professional realization of their significance.

Airco Indus. Gases, Inc. Div. of the BOC Grp., Inc. v. Teamsters Health & Welfare Pension Fund of Philadelphia & Vicinity, 850 F.2d 1028, 1036 (3d Cir. 1988) (citing McSparran v. Hanigan, 225 F. Supp. 628, 636–37 (E.D. Pa. 1963), aff'd, 356 F.2d 983 (3d Cir. 1966)). In Airco, an employer brought a suit against an employee benefit plan to recover erroneous overpayments. Id. at 1029-30. A main dispute in the case concerned the controlling refund policy adopted by the trustees of the employee benefit plan on November 3, 1983. Id. at 1035. In a Rule 36 admission, the employee benefit plan admitted the trustees adopted a policy not to refund employer overpayments on November 3, 1983. Id. at 1035. The district court found that the employee benefit plan intended to admit that the meeting in 1983 only confirmed a 1981 decision to adopt a no-refund policy, thus there was no admission that the trustees agreed to adopt a no-refund policy in 1983. Id. The Third Circuit reversed, finding that there

was no ambiguity in the admission which stated that, "the trustees unanimously agreed to adopt a [no-refund] policy" on November 3, 1983. Id. at 1036. The court noted that, "[w]here there is a dispute as to the meaning of an admission, we will not contort the plain wording of the admission to favor either party's interpretation." Id.; see also Ajinomoto Co. v. Archer–Daniels–Midland Co., 228 F.3d 1338, 1351 (Fed. Cir. 2000) (pre-trial infringement admissions were binding because accused infringer "offered no correction of these admissions before the court's judgment").

Evonik's request for admission was unqualified and precise. It asked whether Evonik's product was in the scope of Materia's '590 Patent. Materia responded, in pertinent part, that Evonik's product "is not within the scope of any claim of the '590 [P]atent." Stated simply, when Materia responded that Evonik's product was not within the scope of '590 Patent, it admitted that there was no infringement. Materia did not state that its admission did not cover its "alkyl substituted with a functional group" argument. The Court will not contort the plain wording of Materia's admission which was unqualified and expressed no limitation. Accordingly, Evonik's Motion for Partial Summary Judgment that Evonik Does Not Infringe the '590 Patent will be granted.

B. Materia's Motion for Partial Summary Judgment on the Invalidity of the '528 and '145 Patents Due to Lack of Description of "Form a Ring" [D.I. 561]

This dispute concerns Claims 1 and 8-11 of Evonik's '528 Patent and Claims 1, 2, 22-25 of Evonik's '145 Patent. Materia alleges these claims are invalid as lacking a written description under 35 U.S.C. § 112, ¶ 1 and are not entitled to the benefit of the earlier filing dates of their priority applications. Specifically, Materia argues that the asserted claims are invalid because Evonik's claims of a complex of formula I in which its R^1 and R^2 substituents "form a ring" in the '145 and '528 Patents are not adequately described by their patent specifications which are limited to a complex of formula I in which its R^1 and R^2 substituents "have" or "contain" a ring. Materia thus argues that a person of ordinary skill in the art would not understand that the '145 or '528 Patent adequately describes that R^1 and R^2 "form a ring" in the asserted claims.

The written description requirement of § 112, ¶ 1 provides:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

35 U.S.C. § 112, ¶ 1. "Compliance with the written description

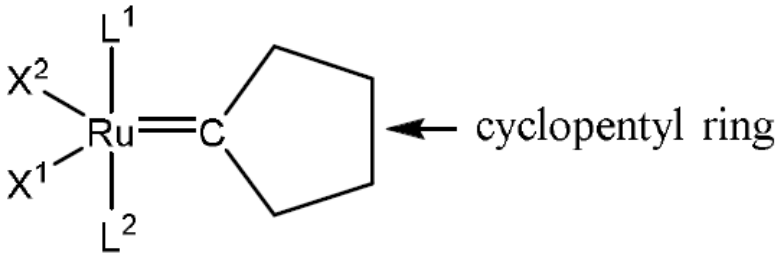
requirement is a question of fact but is amenable to summary judgment in cases where no reasonable fact finder could return a verdict for the non-moving party." Spine Solutions, Inc. v. Medtronic Sofamor Danek USA, Inc., 620 F.3d 1305, 1312-13 (Fed. Cir. 2010) (citing PowerOasis, Inc. v. T–Mobile USA, Inc., 522 F.3d 1299, 1307 (Fed. Cir. 2008)). The written description must "clearly allow persons of ordinary skill in the art to recognize that [the inventor] invented what is claimed." Ariad Pharm., Inc. v. Eli Lilly & Co., 598 F.3d 1336, 1351 (Fed. Cir. 2010) (citation omitted). Thus, the court must look objectively at the four corners of the specification from the perspective of a person of ordinary skill in the art. Id. Ultimately, "[w]hat is claimed by the patent application must be the same as what is disclosed in the specification; otherwise the patent should not issue." Festo Corp. v. Shokesu Kinzoku Kogyo Kabushiki Co., 535 U.S. 722, 736 (2002).

As an initial matter, the Court addresses Evonik's argument that Materia's motion is untimely. While the Court previously found Materia's "form a ring" argument untimely for purposes of claim construction (see D.I. 525 at 21 n.14), Materia's instant motion relates to invalidity and is not untimely.

The Court next considers whether no reasonable factfinder could find that the '528 and '145 Patents have an adequate

written description which reasonably conveys to one of ordinary skill in the art that the inventors had possession of the claimed subject matter. The Court finds that reasonable factfinders could disagree on this issue.

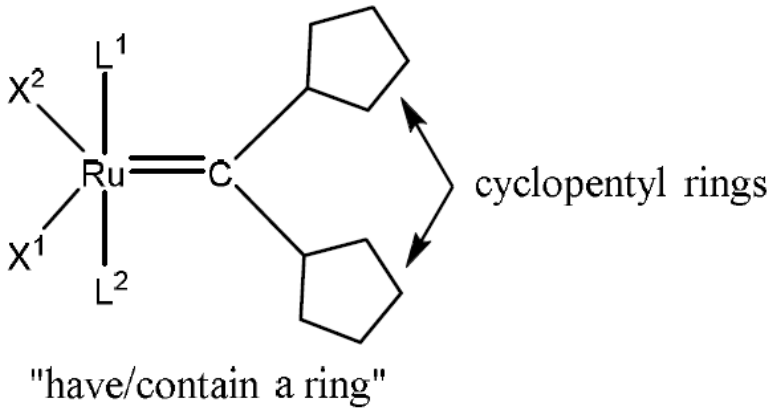
Materia's technical expert, Professor Jacobsen opined that one of ordinary skill in the art would understand the ordinary meaning of the phrase "form a ring" as describing that R1 and R2 forming a cyclic structure.[6]



"form a ring"

Materia's Br. at 16 [D.I. 562]. Materia further argues that one of ordinary skill in the art would have understood the phrase "have/contain a ring" in the context of R^1 and R^2 of formula I in the specification of the '145 and '528 Patents was that R^1 and R^2 may, independently, have/contain unconnected cyclic structures.

[6] The example below shows a cycloalkyl ring.



"have/contain a ring"

Id. at 17. Thus, Materia argues that "form a ring" and "have/contain a ring" are inconsistent with the agreed upon definition of "form a ring." Materia further argues that the fact that Evonik amended its '145 Patent to replace the words "have/contain" with "form" illustrates that those claims are invalid due to lack of description.

Evonik admits that at various times during the '528 and '145 Patent prosecutions, Evonik revised its patent claims to replace references to "have/contain a ring" to "forms a ring." Evonik argues that these revisions were for purposes of clarification, and were summarily authorized by the U.S. Patent and Trademark Office ("USPTO") which did not consider these revisions to be new matter. Evonik's technical expert, Dr. Cooper, opined that one of ordinary skill in the art would interpret the original "have/contain" language to mean to same thing as "form a ring." Evonik Br. at 17 [D.I. 590] (citing

Rebuttal Expert Report, Ex. W at 9). "Form," Evonik argues, could describe a process in the transitive sense of creating or producing a ring. Alternatively, "form" could be used in the intransitive sense, used to describe the nature of different structures. As the Court interprets Evonik's argument, "form" could describe an action, as in "the campers formed a ring around a campfire in order to toast their marshmallows" but could also describe a shape, as in "the petals form a ring outside the center of the flower." Thus, Evonik's expert opined that one skilled in the art would recognize that when "form a ring" is used to describe structurally different catalysts and their R1 and R2 substituents, "form" is used in the intransitive sense that R^1 and R^2 display or constitute ("have/contain") a ring.

Evonik argues that one of ordinary skill the art would not interpret the "have/contain" language to mean that R^1 and R^2 separately or independently possess a ring. In support of their argument, Evonik notes that R^1 and R^2 can be a "hydrocarbon group," illustrated by a "cyclic" radical such as "aryl" – a ring structure. The '528 disclosure further notes that another alternative for R1 and R2 is that one or more hydrogen atoms in the hydrocarbon group can be replaced by others, such as a "aryl" or "aryloxy group," both of which contain rings. Under

Materia's interpretation, Evonik argues, the claim language would read that R^1 and R^2 each have a cyclic group or they can each have a ring, which is redundant. According to Evonik, the only reasonable interpretation to one of ordinary skill in the art is that R^1 and R^2 can each have a cylic group or, together, they can form a ring. Evonik Br. at 17 [D.I. 590] (citing Dr. Cooper's Rebuttal Expert Report, Ex. W at 9).

While the USPTO did not find that the amendment from "have/contain" to "form" was new matter, the Court recognizes that it is the "final arbiter of patent validity and, although courts may take cognizance of, and benefit from, the proceedings before the patent examiner, the question is ultimately for the courts to decide, without deference to the rulings of the patent examiner." Quad Envtl. Technologies Corp. v. Union Sanitary Dist., 946 F.2d 870, 876 (Fed. Cir. 1991). Nonetheless, drawing all reasonable inferences in Evonik's favor, there is dispute of material fact regarding what this language would mean to one of ordinary skill in the art. This "battle of the experts" renders summary judgement improper. Edwards Sys. Tech., Inc. v. Digital Control Sys., Inc., 99 F. App'x 911, 921 (Fed. Cir. 2004).

C. Materia's Motion for Partial Summary Judgment of Invalidity Due to Lack of Written Description as to Claims 8-22 of the '528 Patent that Claim Complexes Containing the NHC Ligand in the L^1 position of the Formula I Complexes [D.I. 565]

Materia generally argues that "NHC" as now construed, is so overbroad that it renders Claims 8-11 of the '528 Patent, which contain that term without further limitation, invalid for indefiniteness, non-enablement, and lack of written description. According to Materia, these three arguments are related in that they result from the overbroad construction of NHC that Evonik advocated and the Court adopted. In this motion, Materia argues that Claims 8-11 of Evonik's '528 Patent are invalid under § 112, ¶ 1 because the formula I complexes claimed contain a "N-heterocyclic carbene" (NHC) ligand in the L^1 position, and the '528 Patent fails to describe the NHC ligand L^1 so that one of ordinary skill in the art would have understood the named inventors possessed the claimed invention at the time their patent application was filed.

By way of brief background, in the Court's Markman Opinion it decided "NHC" as used in the '528 Patent requires only three structural, component parts: (1) a carbene whose molecular structure comprises (2) at least one ring containing (3) at least one nitrogen atom in the ring. Materia argues that the asserted claims are invalid because the '528 Patent fails to

describe a representative number of species falling within the scope of the genus of structural features common to members of the broad NHC genus of L^1. Materia claims that previously, Evonik argued that the definition of NHC and consequently L^1 is not limited, but Evonik now argues that the claims should be limited to useful ligands in metathesis catalysts. Materia argues Evonik's new definition of L^1 NHC tries to limit the scope of NHC and is an impermissible new claim construction challenge to avoid an invalidity determination. Further, Materia argues that the '528 Patent fails to describe either (1) an adequate number of representative species of the NHC genus and ruthenium complexes containing them, or (2) relevant identifying characteristics common to the members of the NHC genus sufficient to demonstrate that the inventors possessed the full scope of the NHC genus and ruthenium complexes containing them.

Evonik responds that it is in no way changing the Court's construction of "NHC" in connection with ligand L^1 in Claims 8-11. Evonik contends that a patentee may rely on information that is "well-known in the art" for purposes of the written description requirement. Evonik Br. at 5 [D.I. 597] (citing Falk-Gunter Falkner v. Inglis, 448 F.3d 1357, 1366-68 (Fed. Cir. 2008)). Specifically, Evonik argues that its expert, Dr. Cooper, opined that a person of ordinary skill trying to

practice the ‘528 inventions would apply a practical knowledge of which ligands were more likely to be useful than others. As an example, Evonik argues that one trying to practice a rolling suitcase patent would not affix it with large wagon wheels instead of small plastic ones. Rather, one of ordinary skill in the art would take into account common sense factors, in this case, whether a NHC would be useful.

In contrast, Materia argues that one of ordinary skill would be unable to conclude from the ‘528 patent specification that the inventors had possession of the full scope of the claimed ruthenium complexes encompassing all of the possible NHCs which fall within the Court’s definition of that term. In other words, Materia accuses Evonik of narrowing the Court’s definition. Materia cites AbbVie Deutschland GmbH & Co., KG v. Janssen Biotech, Inc., 759 F.3d 1285, 1300 (Fed. Cir. 2014), for the proposition that to show that an inventor has invented a genus it must describe sufficient representative species encompassing the breadth of that genus. However, in AbbVie, that question went before a jury. Id. Indeed, “[w]hether a written description requirement for a genus is met by a particular disclosure depends upon the facts.” Id. at 2999.

The same consideration is warranted here. The written description requirement calls for “an objective inquiry into the

four corners of the specification from the perspective of a person of ordinary skill in the art." Ariad Pharm., 598 F.3d at 1351. Here, there are factual disputes as to whether the '528 Patent fails to describe either (1) an adequate number of representative species of the NHC genus and ruthenium complexes containing them, or (2) relevant identifying characteristics common to the members of the NHC genus sufficient to demonstrate that the inventors possessed the full scope of the NHC genus and ruthenium complexes containing them. Stated a different way, there is a factual dispute as to whether one of ordinary skill in the art, applying their ordinary skills, would conclude from the '528 patent specification that the inventors had possession of the full scope of the claimed ruthenium complexes encompassing all of the possible NHCs which fall within the Court's definition of that term. Accordingly, summary judgment is inappropriate on this issue.

D. Materia's Motion for Partial Summary Judgment of Invalidity Due to Non-Enablement as to Claims 8-11 of the '528 Patent that Claims Complexes Containing the NHC Ligand [D.I. 563]

To constitute an enabling disclosure, "the specification of a patent must teach those skilled in the art how to make and use the full scope of the claimed invention without 'undue experimentation.'" Harris Corp. v. IXYS Corp., 114 F.3d 1149,

1155 (Fed. Cir. 1997) (citing In re Wright, 999 F.2d 1557, 1561, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993)). Enablement is a question of law based on underlying factual findings. In re Wands, 858 F.2d 731, 735 (Fed. Cir. 1988). "The determination of what constitutes undue experimentation in a given case requires the application of a standard of reasonableness, having due regard for the nature of the invention and the state of the art. The test is not merely quantitative, since a considerable amount of experimentation is permissible, if it is merely routine, or if the specification in question provides a reasonable amount of guidance with respect to the direction in which the experimentation should proceed." In re Wands, 858 at 737 (internal citations and quotations omitted). Wands further sets forth eight factors a court may consider when determining if a disclosure requires undue experimentation: (1) the quantity of experimentation necessary, (2) the amount of direction or guidance presented, (3) the presence or absence of working examples, (4) the nature of the invention, (5) the state of the prior art, (6) the relative skill of those in the art, (7) the predictability or unpredictability of the art, and (8) the breadth of the claims. Id.

Under the definition adopted by the Court, the '528 Patent must teach one of ordinary skill in the art to make the full

scope of complexes containing NHC ligands at L^1 without limitation, as long as it satisfies the structural requirements of the Court's definition. Materia argues that the '528 Patent fails to teach one skilled in the art how to make, without undue experimentation, the full scope of the formula I complexes containing a NHC ligand in the L^1 position. In support of their argument, Materia notes that the '528 Patent required a more comprehensive disclosure since the parties agree someone with ordinary skill in the art need only have a bachelor's degree in chemistry. Materia further argues that based on the limited prior art and the unpredictability of the full scope of the claimed complexes, the experimentation needed to produce the invention is undue. In sum, Materia argues the '528 Patent lacks sufficient direction, guidance or examples regarding how to make what it considers "the extraordinarily broad and varied scope of claimed complexes containing an 'NHC' ligand at L^1." Materia Br. [D.I. 566] at 27.

Evonik argues that Materia disregards how one of ordinary skill in the art would understand "NHC" as used in the patent. Specifically, Evonik argues that one of ordinary skill would understand that some species within the literal scope of "NHC" would be more likely to be useful to make the claimed ruthenium complexes for olefin metathesis and rank them accordingly. The

Court notes that "it is not necessary that a patent applicant test all the embodiments of his invention . . . what is necessary is that he provide a disclosure sufficient to enable one skilled in the art to carry out the invention commensurate with the scope of his claims." Id. at 1213. Evonik further argues that Materia's motion is based on their technical expert, Dr. Jacobsen, who provided only conclusory statements that one of ordinary skill in the art could not make the full scope of Claims 8-11 without undue experimentation without addressing what experimentation would be required. In contrast, Evonik's expert opined that it would only take one day to conduct the experiments which would not be onerous. Citing Atlas Powder Co. v. E.I. du Pont De Nemours & Co., 750 F.2d 1569, 1576-77 (Fed. Cir. 1984), Evonik argues that even if some of the claimed combinations are inoperative the claims are not necessarily invalid for lack of enablement. See also In re Dinh-Nguyen, 492 F.2d 856, 858–59, 181 USPQ 46, 48 (CCPA 1974) ("It is not a function of the claims to specifically exclude ... possible inoperative substances[.]"). Rather, it is only where the number of inoperative combinations requires undue experimentation that the claim might be invalid. Atlas, 750 F.2d at 1577. Evonik additionally argues that a genuine dispute of material fact exists as to many of the Wands factors,

including the state of the prior art, the predictability of the art, the nature of the claimed complexes, the guidance and direction provided by the patent and the presence and sufficiency of working examples.

Evonik has raised a genuine issue of material fact as to the amount and type of experimentation required, facts that will determine whether such experimentation is undue for one of ordinary skill in the art. Crown Operations Int'l, Ltd. v. Solutia Inc., 289 F.3d 1367, 1381 (Fed. Cir. 2002) (citing Enzo Biochem Inc., v. Calgene Inc., 188 F.3d 1362, 1371, 52 USPQ2d 1129, 1135–36 (Fed. Cir. 1999) (holding that a reasonable amount of experimentation does not invalidate a patent, but undue experimentation does invalidate)). This dispute affects a majority of the Wands factors: the quantity of experimentation necessary, the amount of direction or guidance presented, the presence or absence of working examples, the nature of the invention, and the breadth of the claims.[7]

While ultimately a trier of fact may reach the conclusion that the required experimentation is undue, Evonik's expert has refuted Materia's arguments by stating that one of ordinary skill in the art could make and use the full scope of the

[7] The parties' experts also dispute the state of the prior art and its predictability.

claimed invention without undue experimentation. Materia, thus, has not proven through clear and convincing evidence that the '528 Patent is invalid for non-enablement. In simple terms, what the Court has before it is insufficient to grant partial summary judgment in Materia's favor. Materia has argued that the Wands factors leave no question that the experimentation required to make and use the full scope of the claims in the '528 Patent is undue. However, Materia has not explained what experimentation would be required or why that amount of experimentation would be undue other than to say Professor Herrmann was unable to make the claimed complexes containing "acyclic carbenes" even though they satisfied the Court's definition of NHC. Evonik, conversely, cites to its expert testimony which states that such experiments could be performed in a day and would not be onerous. Clearly, this is a genuine dispute of material fact and the Court upon a summary judgment motion cannot weigh expert credibility. Accordingly, summary judgment is improper.

E. Materia's Motion for Partial Summary Judgment of Invalidity Due to Indefiniteness as to Claims 8-11 of the '528 Patent that Claimed Complexes Containing a NHC Ligand [D.I. 567]

The Patent Act also requires that a patent specification "conclude with one or more claims particularly pointing out and

distinctly claiming the subject matter which the applicant regards as [the] invention." 35 U.S.C. § 112, ¶ 2. The Supreme Court recently clarified the definiteness requirement in Nautilus, Inc. v. Biosig Instruments, Inc., 134 S. Ct. 2120, 189 L. Ed. 2d 37 (2014). Definiteness requires that a patent's claims "viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty." Id. at 2129. Whether a patent is invalid for indefiniteness is a question of law. Utah Med. Prods., Inc. v. Graphic Controls Corp., 350 F.3d 1376, 1381 (Fed. Cir. 2003).

Materia argues that Evonik is trying to introduce a subjective, ambiguous limitation which includes only NHC ligands that one of the ordinary skill of the art would have contemplated as being a "useful" ligand. Materia points to Evonik's response to its Request for Admissions wherein Materia admitted that certain chemical structures were NHCs as defined by the Court but could not determine whether each chemical structure "exists or whether a person of ordinary skill would conceive of, much less attempt to use this hypothetical molecule as a ligand in the way suggested." Mat. Br. at 10 [D.I. 568] (citing Ex. II at Nos. 338-391). Materia argues that in this admission Evonik "essentially concede[s]" that its claims are

indefinite. Id. Materia argues there is no objective standard to determine when a NHC could have been contemplated as a useful L^1 ligand in metathesis catalyst at the time of invention – thus the invention is indefinite under Nautilus because the definition is subjective and uncertain. Under Evonik's "subjective" definition, Materia argues, one skilled in the art would not know whether "acyclic carbenes" are NHC's because Evonik's definition does not state whether the carbene atom is present in the ring containing at least one nitrogen atom.

Evonik responds that there is no reason for this motion because Materia concedes that the Court's definition of NHC provides an objective criteria for someone skilled in the art to know whether a chemical structure is a NHC, thereby satisfying the definiteness requirement. Evonik asserts it is seeking a common sense interpretation based on scientific knowledge and experiments that can be objectively measured and evaluated by a person of ordinary skill in the art. Evonik also points out that the cases cited by Materia to support their argument that Evonik's claims are indefinite are distinguishable. The Court agrees. The Federal Circuit case Datamize, LLC v. Plumtree Software, Inc., C(Fed. Cir. 2005) abrogated by Nautilus, Inc. v. Biosig Instruments, Inc., 134 S. Ct. 2120, 189 L. Ed. 2d 37 (2014) concerned the subjective claim term "aesthetically

pleasing." The Federal Circuit found the subjective term failed to provide direction to one skilled in the art to determine the scope of the claimed invention. Id. at 1352. The claim term in Interval Licensing LLC v. AOL, Inc., 766 F.3d 1364 (Fed. Cir. 2014) cert. denied, (U.S. Oct. 5, 2015) was "unobtrusive manner" and the Federal Circuit came to the same conclusion.

Here, NHC has been objectively defined in the Court's claim construction. Materia argues that Evonik now seeks to add a new subjective meaning to the ligand L^1 to include that it must be useful in a metathesis catalyst. The Court does not agree that that Evonik claims are suddenly subjective. Instead, Evonik is bound by the objective definition of NHC as construed by the Court. Accordingly, summary judgment is denied on this claim.

F. Materia's Motion for Summary Judgment of No Inequitable Conduct as to the '590 Patent [D.I. 557] and Evonik's Motion to Strike [D.I. 618]

Inequitable conduct claims are governed by Federal Circuit law. Exergen Corp. v. Wal–Mart Stores, Inc., 575 F.3d 1312, 1326 (Fed. Cir. 2009). Recently, the Federal Circuit examined the standard of proof needed for a claim of inequitable conduct and found the standard too low resulting in a "plague" on the courts and the patent system. See Therasense, Inc. v. Becton,

Dickinson and Co., 649 F.3d 1276, 1289 (Fed. Cir. 2011). In Therasense, the Federal Circuit recounted how inequitable conduct in patent law evolved from a trio of Supreme Court cases interpreting the doctrine of unclean hands. Id. at 1285 (citing Keystone Driller Co. v. General Excavator Co., 290 U.S. 240, 54 S.Ct. 146, 78 L.Ed. 293 (1933), Hazel–Atlas Glass Co. v. Hartford–Empire Co., 322 U.S. 238, 64 S.Ct. 997, 88 L.Ed. 1250 (1944), overruled on other grounds by Standard Oil Co. v. United States, 429 U.S. 17, 97 S.Ct. 31, 50 L.Ed.2d 21 (1976), and Precision Instrument Manufacturing Co. v. Automotive Maintenance Machinery Co., 324 U.S. 806, 65 S.Ct. 993, 89 L.Ed. 1381 (1945)). The Federal Circuit remarked that over time, charging inequitable conduct became a "common litigation tactic" and "[l]eft unfettered, the inequitable conduct doctrine has plagued not only the courts but also the entire patent system." Id. at 1289. The Federal Circuit also noted that "[w]ith inequitable conduct casting the shadow of a hangman's noose, it is unsurprising that patent prosecutors regularly bury PTO examiners with a deluge of prior art references, most of which have marginal value." Id.

A claim for inequitable conduct requires a finding of both intent to deceive and materiality. Id. at 1287. The Federal Circuit rejected prior lower standards that permitted proof of

intent to deceive on findings of gross negligence or negligence, or that permitted a reduced showing of intent if the record contained a strong showing of materiality. Instead, the Federal Circuit held that to "prevail on a claim of inequitable conduct, the accused infringer must prove that the patentee acted with the specific intent to deceive the PTO" and must show "but-for materiality," meaning "[w]hen an applicant fails to disclose prior art to the PTO, that prior art is but-for material if the PTO would not have allowed a claim had it been aware of the undisclosed prior art." Id. at 1290–91.

Here, Evonik alleges in its counterclaim that Materia's '590 Patent is unenforceable due to a failure to disclose certain information related to an argument that the claimed inventions were derived in violation of 35 U.S.C. § 102(f).[8] Materia argues that Evonik's counterclaim fails as a matter of law because: (1) Evonik cannot satisfy the "but-for materiality" requirement of Therasense because it cannot prove the '590 Patent was derived; (2) if Evonik does not rely on derivation, the narrow exception for extraordinary cases where materiality may be presumed does not apply because the exception does not

[8] Previously, Materia moved to dismiss Evonik's inequitable conduct counterclaim. The Court denied Materia's motion, finding that Evonik's inequitable conduct claim was sufficiently pled in accordance with Fed. R. Civ. P. 9(b). [D.I. 389].

apply when the alleged inequitable conduct involves the nondisclosure of information rather than "affirmative egregious misconduct"; and (3) Evonik cannot satisfy the "specific intent to deceive" requirement of Therasense because it cannot prove that the individuals involved in the prosecution of '590 Patent (a) knew that the information related to the purported allegation of derivation was material, (b) made a deliberate decision not to disclose that information, and (c) did so in order to deceive the USPTO into granting on or more unwarranted claims of the patent.

By way of background,[9] the named inventors of the '590 Patent are Professor Steven Nolan and Dr. Jinkun Huang. Between 1990 and 2006, Professor Nolan was employed by the University of New Orleans. Prior to discovering the inventions claimed in the '590 Patent, from 1996 (or 1997) to 1998 during a sabbatical, Professor Nolan worked as a Visiting Associate in Chemistry at the California Institute of Technology ("Caltech") in the lab of Professor Robert H. Grubbs. While at Caltech, Professor Nolan and others worked on metathesis catalytic reactions involving

[9] At oral argument, Materia contended that it would be entitled to summary judgment assuming all the following events occurred. For purposes other than deciding this motion, the characterization of events may be disputed.

ruthenium complexes. Evonik contends that in 1998 Professor Herrmann discovered the benefits of using NHCs as metathesis ligands and authored a paper for the Journal of the American Chemical Society (JACS). Professor Grubbs peer-reviewed Professor Herrmann's paper, and the then-unpublished paper was present in his office during Professor Nolan's sabbatical.[10] Evonik contends that while at Caltech, Professor Nolan read both the Herrmann paper and the notebooks of researchers who were working on metathesis in Grubbs' lab without permission.[11] Then, when back at the University of New Orleans, Materia contends Professor Nolan and Dr. Huang discovered the subject matter contained in the '590 Patent.[12] Evonik finds suspect that Dr. Huang, the purported co-inventor of the '590 Patent, had not signed his laboratory notebook for nine months, then curiously signed his notebook and had it witnessed the first time he prepared a metathesis catalysis using a NHC ligand, before he

[10] When Grubbs reviewed Nolan's paper for JACS he wrote to Nolan and accused him of finding "something that was of potential value." Evonik argues Grubbs is referencing the Herrmann paper.

[11] Evonik further notes that the idea for using NHCs as ligands in metathesis was not found in Nolan's idea books, in which he routinely recorded all of his ideas.

[12] Evonik contends that during this time Grubbs was unable to research NHCs as ligands because he was reviewing Herrmann's paper which concerned the same subject.

knew whether the reaction would work.

On September 1, 1998, Professor Nolan and Dr. Huang submitted a scientific paper to JACS. On September 10, 1998, Professor Nolan and Dr. Huang filed the Nolan '722 Provisional Application entitled "Synthesis of an Olefin Metathesis Catalyst Bearing a Carbene Ancillary Ligand."

The parties agree Professor Grubbs was unhappy to learn that Professor Nolan continued his work on olefin metathesis without collaborating with him, and sent Professor Nolan an email to this effect on November 11, 1998. Materia's Br. [D.I. 558], Ex. E. (Professor Grubbs stated: "collaborations do not start and end at the whim of one side" and "when you found something that was of potential value that was part of the theme of the cooperation – you with held [sic] it from me and established a secret and competative [sic] program."). The parties disagree about the meaning of Grubbs' sentiments. While Materia does not contest that Professor Grubbs was unhappy with Professor's Nolan's actions, it argues Professor Grubbs never believed Professor Nolan derived his invention either from the laboratory notebook or the Herrmann paper Professor Grubbs had in his office. Indeed, Materia cites to Professor Grubbs deposition testimony where he states that he never questioned the inventorship of the '590 Patent. Materia. Br. at 6-7

(citing Ex. F, Grubbs Dep. May 12, 2011 at 81:25-82:11; Ex. G, Grubbs Dep. March 7, 2014 at 226:10-228:12). Evonik, in turn, highlights that Nolan had no experience in metathesis catalysts prior to his visit to Caltech, yet used the NHC ligands, the "breakthrough" described in the Herrmann paper. Evonik contends that the timing is suspect and Nolan's knowledge of NHC ligands came from the then-unpublished Herrmann paper.

In unrelated litigation in 2002, Caltech and Materia filed a patent infringement action against Boulder Scientific Company ("Boulder") in the District of Colorado, California Institute of Technology and Materia, Inc. v. Boulder Scientific Co., No. 02-463 (D. Colo. 2002) ("the Boulder litigation"). Caltech and Materia alleged that Boulder infringed two of Professor Grubbs' patents related to olefin metathesis catalysts. In that action, Boulder sought to retain Professor Nolan as an expert witness but Caltech and Materia objected and filed a motion to prevent the disclosure of litigation-related confidential information to Professor Nolan because he was a competitor. In support of its motion, Materia submitted the Grubbs Declaration (and deposition testimony) wherein Grubbs alludes to the fact that Nolan had previously misused information he discovered in Grubbs' lab.[13]

[13] Grubbs later testified that Nolan did not misuse information about NHCs, but "broad-based information" about metathesis.

This sentiment was later echoed by Materia in its Boulder opposition. Evonik Br. at 16 [D.I. 588] citing Ex. LL at 12 ("[Nolan's] eager, unaccredited and undisclosed use of Caltech technology in the very field at issue in this litigation [metathesis catalysts] demonstrates that disclosure of Caltech's and Materia's AEO [Attorney's Eyes Only] information to Prof. Nolan creates an unacceptable risk of its use and/or disclosure[.]"). Materia also submitted a Declaration from Dr. Mark Trimmer, Materia's Vice President, which stated that if Nolan were permitted to be an expert he would learn Materia's trade secrets and because of Nolan's overlapping research, any patent application by Nolan would trigger his duty to disclose Materia's trade secrets to the USPTO. Evonik contends that Trimmer later breached the same duty of disclosure because Materia eventually obtained rights in the Nolan application and Trimmer became involved in its prosecution but did not disclose to the USPTO his knowledge of the same Materia trade secrets he previously cited to preclude Professor Nolan from testifying.

On June 3, 2005, the claims in the Nolan '869 Application were found to be allowable but prosecution was suspended due to potential interference with Grubbs' patent applications. On

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Evonik Br. [D.I. 588] at 23 (citing Ex. X at 238:11-19).

September 30, 2015, Senior Administrative Patent Judge Fred E. McKelvy of the USPTO Board of Patent Appeals and Interferences declared two interferences between Nolan's '869 Application and Grubbs' two patent applications, U.S. Pat. App. Nos. 09/576,370 and 10/124,745 (the '373 and '374 Interferences). The Grubbs-Nolan '373/'374 Interferences concerned whether Professor Nolan conceived of the inventions claims in his '869 Application (later the '590 Patent). During the interference proceedings, Professor Grubbs submitted a motion list which contemplated bringing a motion to correct inventorship of the '869 Application and a derivation motion.

In the Grubbs-Nolan '373 Interference, the Board ruled in Grubbs' favor. In the Grubbs-Nolan '374 Interference, the Board found in favor of Grubbs on some counts and in favor of Nolan on others. Following the interference proceedings, prosecution of the Nolan '869 Application resumed.

Following the Interferences, Mark Warzel was hired as an in-house patent agent for Materia and was involved in the post-interference prosecution of the Nolan application on Materia's behalf. Evonik argues that Warzel breached his duty to thoroughly review the prosecution history. If he had, Evonik argues, he would have seen the list of preliminary motions that Materia filed against the application he was now helping to

prosecute.

Evonik contends that for many years prior to the instant lawsuit, Materia and Grubbs knew Nolan was not the inventor of the '590 Patent, but denies this knowledge since it gained an interest in the Nolan application. Evonik's inequitable conduct allegations are based in part on the non-disclosure of information to the USPTO during the post-interference prosecution of the '590 Patent. Specifically, Evonik notes that the USPTO was not informed about: (1) the basis of the contemplated derivation motion against Nolan; (2) the other motions for unpatentability Materia contemplated; (3) Grubbs' Boulder declaration; (4) Grubbs' testimony regarding Nolan's actions in the Boulder litigation; (5) Trimmer's Boulder Declaration; (6) the trade secrets that Trimmer said would have to be disclosed the USPTO based on the duty of disclosure; (7) the motion Materia filed against Nolan in the Boulder litigation; and (8) email communications between Grubbs and Nolan.

Materia asserts that in order to meet the "specific intent to defraud" element required by Therasense, Evonik must prove by clear and convincing evidence that during the prosecution of the '590 Patent, Materia knew of information related to Professor Grubbs alleged allegations of derivation against Professor

Nolan, knew that those allegations were material to the patentability of the '590 Patent, and "made a deliberate decision" to withhold the information with the specific intent of deceiving the USPTO.

Materia additionally asserts that Evonik has failed to prove that any information withheld from the USPTO was so material that the USPTO would not have allowed one or more claims to issue but-for its non-disclosure. Further, Materia argues that the narrow exception where proving but-for materiality is not required does not apply because this is not a case of affirmative egregious misconduct from which materiality may be presumed.

The parties do not dispute that derivation is material. The dispute is over whether the '590 Patent was derived. In order to establish derivation in support of a claim for patent invalidity, an alleged infringer must prove "both prior conception of the invention by another and communication of that conception to the patentee." Creative Compounds, LLC v. Starmark Labs., 651 F.3d 1303, 1313 (Fed. Cir. 2011) (citing Eaton Corp. v. Rockwell Int'l Corp., 323 F.3d 1332, 1334 (Fed. Cir. 2003)). "In the chemical arts, '[c]onception requires (1) the idea of the structure of the chemical compound, and (2) possession of an operative method of making it.'"

GlaxoSmithKline LLC v. Banner Pharmacaps, Inc., No. 11-046, 2013 WL 4082232, at *13 (D. Del. Aug. 9, 2013) aff'd, 744 F.3d 725 (Fed. Cir. 2014) (quoting Oka v. Youssefyeh, 849 F.2d 581, 583 (Fed. Cir. 1988)).

The Court will reserve its decision on whether **Materia** engaged in inequitable conduct until the question of whether the '590 Patent was derived, or conceived by another, is resolved by a jury. Determining inventorship in this case is material to a finding of inequitable conduct. See also St. Clair Intellectual Prop. Consultants, Inc. v. Acer, Inc., 961 F. Supp. 2d 610, 617 (D. Del. 2013) (question of fact as to inventorship precludes inequitable conduct ruling).[14] Once the jury advises the Court whether Professor Nolan was the inventor of the '590 Patent, the Court will be able decide whether Materia engaged in inequitable conduct. Accordingly, Materia's motion for partial summary judgment as to no inequitable conduct will be denied.

G. Materia's Motion to Exclude Stephen Cooper from Offering Testimony Regarding the "Miscellaneous" Issues

[14] In light of the Court's decision that Materia's motion for partial summary judgment raises questions of fact that must first be resolved by a jury, Evonik's motion to strike arguments related to misappropriation from the Herrmann paper in Materia's Reply Brief will be denied as moot. These arguments do not affect the Court's analysis in any way.

Referenced in his Report or his Understanding of the German Language [D.I. 577]

The Court turns now to Materia's motion to exclude one of Evonik's experts, Dr. Stephen Cooper, because he does not meet the requirements of Federal Rule of Evidence 702 or the standard under Daubert v. Merrell Dow Pharma., 509 U.S. 579 (1993).[15] Federal Rule of Evidence 702 governs the admissibility of expert testimony. Rule 702 states:

> If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of

[15] In Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579, 572 (1993), the Supreme Court analyzed Rule 702, and instructed that a two-step analysis is to be used to assess the admissibility of the proffered expert testimony on scientific issues under Rule 702. The expert testimony must be reliable, so that it must be "scientific," meaning grounded in the methods and procedures of science, and it must constitute "knowledge," meaning something more than subjective belief or unsupported speculation. Daubert, 509 U.S. at 590. Guideposts that the court may consider in assessing the reliability of the proffered expert testimony include, but are not limited to: (1) whether the expert's methodology has been tested or is capable of being tested; (2) whether the technique has been subjected to peer review and publication; (3) the known and potential error rate of the methodology; and (4) whether the technique has been generally accepted in the proper scientific community. Id. at 593–94; In re TMI Litig., 193 F.3d 613, 663–64 (3d Cir. 1999). Ultimately, a court is required to act as a gatekeeper "to make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the practice of an expert in the relevant field." Kumho Tire Co. v. Carmichael, 526 U.S. 137, 152 (1999).

> an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

Fed. R. Evid. 702.

The three requirements outlined in Rule 702 are referred to as: qualification, reliability and fit. Calhoun v. Yamaha Motor Corp., U.S.A., 350 F.3d 316, 321 (3d Cir. 2003) (citing Schneider v. Fried, 320 F.3d 396, 405 (3d Cir.2003)). The Third Circuit explained the three requirements as follows:

> First, the witness must be qualified to testify as an expert. Qualification requires that the witness possess specialized expertise. We have interpreted this requirement liberally, holding that a broad range of knowledge, skills, and training qualify an expert as such. Second, the testimony must be reliable. In other words, the expert's opinion must be based on the methods and procedures of science rather than on subjective belief or unsupported speculation; the expert must have good grounds for his or her belief. An assessment of the reliability of scientific evidence under Rule 702 requires a determination as to its scientific validity. Third, the expert testimony must fit, meaning the expert's testimony must be relevant for the purposes of the case and must assist the trier of fact.

Id. (internal quotations and citations omitted).

Here, Materia seeks to bar Evonik's technical expert, Dr. Stephen R. Cooper, from offering any opinions on translation, grammatical usage or interpretation of the German language, specifically as it relates to Evonik's German and international patent applications, both of which are written in German. Materia additionally seeks to bar Dr. Cooper from offering testimony on the "miscellaneous" issues at the end of his expert report because they fail to meet the requirements of Fed. R. Civ. P. 26.

The Third Circuit instructs that the qualification requirement should be interpreted liberally, and that "a broad range of knowledge, skills, and training qualify an expert as such." Calhoun, 350 F.3d at 321 (citing In re Paoli R.R. Yard PCB Litig., 35 F.3d 717, 741 (3d Cir. 1994) ("Paoli II")); Thomas & Betts Corp. v. Richards Mfg. Co., 342 Fed. App'x 754, 760–61 (3d Cir. 2009); Holbrook v. Lykes Bros. S.S. Co., 80 F.3d 777, 782 (3d Cir. 1996) (finding it "an abuse of discretion to exclude testimony simply because the trial court does not deem the proposed expert to be the best qualified or because the proposed expert does not have the specialization that the court considers most appropriate.").

As to Materia's argument that Dr. Cooper should not be

permitted to testify about the German language, this appears to be a qualification argument. Evonik argues that Dr. Cooper is not being called as a translator or German language expert at trial, but will only opine on how he understood the German words in the original German priority application. Dr. Cooper explained that his understanding of the German words affected his understanding of the meaning of "form" a ring. The Court finds that Dr. Cooper should be able to testify about his understanding of the German patent application. As the Court sees it, Dr. Cooper will not be testifying as a German expert, but about his own understanding of the original German priority application. If necessary, the Court will provide the jury a limiting instruction to this effect. Accordingly, Materia's motion to bar Dr. Cooper from testifying about the German language will be denied.

Materia takes issue with Dr. Cooper's "miscellaneous" opinions regarding: (1) the importance of a scientist's reputation in the academic community; (2) what was publically known in the field of metathesis catalysts during Professor Nolan's sabbatical at Caltech; (3) the duties of reviewers of scientific papers, when they are published, and how laboratory notebook are maintained; (4) Dr. Huang's research notebook as evidence of Nolan's alleged derivation of the '590 Patent and on

the student theses of Professor Grubbs' former students to prove Materia's pattern of misconduct. Materia argues that because Dr. Cooper does not describe in depth his anticipated opinions and what facts or data he considered, his opinions run afoul of Fed. R. Civ. P. 26(a)(2)(B).[16]

The Court admonishes Evonik for failing to comply with the letter of Rule 26. However, under the circumstances of this case and given the extensive discovery, motion practice and depositions, the Court is confident of the parties' joint knowledge of the operative factual and legal questions

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[16] The Rule states:

> Witnesses Who Must Provide a Written Report. Unless otherwise stipulated or ordered by the court, this disclosure must be accompanied by a written report--prepared and signed by the witness--if the witness is one retained or specially employed to provide expert testimony in the case or one whose duties as the party's employee regularly involve giving expert testimony. The report must contain: (i) a complete statement of all opinions the witness will express and the basis and reasons for them; (ii) the facts or data considered by the witness in forming them; (iii) any exhibits that will be used to summarize or support them; (iv) the witness's qualifications, including a list of all publications authored in the previous 10 years; (v) a list of all other cases in which, during the previous 4 years, the witness testified as an expert at trial or by deposition; and (vi) a statement of the compensation to be paid for the study and testimony in the case.

Fed. R. Civ. P. 26(a)(2)(B).

underlying Dr. Cooper's miscellaneous opinions, thus complying with the spirit of the Rule. Here, the opinions underlying Dr. Cooper's report are known to Materia, and no prejudice is apparent. To the extent it can be fairly said that the Court is granting Evonik some leeway, it should not be used as an open door to add wholly new and unsupported opinions not referenced in Dr. Cooper's report at trial. Materia's motion will be denied, subject to the parameters set forth by the Court.

V. CONCLUSION

For all the foregoing reasons, Evonik's Motion for Partial Summary Judgment that Evonik Does Not Infringe the '590 Patent will be granted. Materia's Motion for Partial Summary Judgment on the Invalidity of the '528 and '145 Patents Due to Lack of Description of "Form a Ring" will be denied. Materia's Motion for Partial Summary Judgment of Invalidity Due to Lack of Written Description as to Claims 8-22 of the '528 Patent will be denied. Materia's Motion for Partial Summary Judgment of Invalidity Due to Non-Enablement as to Claims 8-11 of the '528 Patent will be denied. Materia's Motion for Partial Summary Judgment of Invalidity Due to Indefiniteness as to Claims 8-11 of the '528 Patent will be denied. Materia's Motion for Summary Judgment of No Inequitable Conduct as to the '590 Patent and

Evonik's Motion to Strike will be denied. Materia's Motion to Exclude Stephen Cooper from Offering Testimony Regarding the "Miscellaneous" Issues Referenced in his Report or his Understanding of the German Language will be denied. Materia's Motion to Exclude Cameron K. Weiffenbach from Offering Opinions Regarding Patent Practice and Procedure will be denied. This Opinion will be filed under seal. The parties shall submit for the Court's review a proposed redacted version of this Opinion no later than January 29, 2016, and the Court will subsequently release a public version of its Opinion.

An appropriate Order follows.

s/ Noel L. Hillman
NOEL L. HILLMAN, U.S.D.J.

At Camden, New Jersey

Dated: December 21, 2015