

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

SOLVAY, S.A., )  
 )  
 Plaintiff, )  
 )  
 v. ) Civ. No. 06-557-SLR  
 )  
 HONEYWELL SPECIALTY )  
 MATERIALS )  
 LLC and HONEYWELL )  
 INTERNATIONAL INC., )  
 )  
 Defendants. )

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**MEMORANDUM OPINION**

Dated: December 9, 2008  
Wilmington, Delaware

  
ROBINSON, District Judge

## I. INTRODUCTION

Plaintiff Solvay, S.A. (“Solvay”) brought suit against defendants Honeywell Specialty Materials LLC and Honeywell International Inc. (collectively referred to as “Honeywell”) asserting, inter alia, infringement of U.S. Patent No. 6,730,817 (“the ‘817 patent”). Presently before the court are two motions for summary judgment, each based on 35 U.S.C. § 102(g) as it applies to Solvay’s ‘817 patent. (D.I. 121, D.I. 134) Honeywell is the owner of U.S. Patent No. 5,763,706 (the “‘706 patent”). (D.I. 121) The ‘817 and ‘706 patents both concern a process for manufacturing 1,1,1,3,3-pentafluoropropane (“HFC-245fa”). (D.I. 178, exs. 31, 33) Solvay has moved for summary judgment of no invalidity because, it contends, Honeywell abandoned, suppressed or concealed its invention. (D.I. 121) Honeywell has moved for summary judgment of invalidity because it asserts that it is the “first inventor” under § 102(g) and, thus, certain claims of Solvay’s ‘817 patent are invalid under 35 U.S.C. §103.<sup>1</sup> (D.I. 134) For the reasons that follow, Solvay’s motion is denied (D.I. 121) and Honeywell’s motion is granted (D.I. 134).

## II. BACKGROUND

In 1993, Honeywell met with a group of engineers in Russia working at the Russian Scientific Center for Applied Chemistry (“RSCAC”). (D.I. 136, ex. 5 at 5) The meeting sought to “develop breakthrough [f]luorine [p]roduct [t]echnologies which, [ ] if successful, [would] have commercial import.” (*Id.*) In 1994, Honeywell entered into a contract for research with RSCAC. (*Id.*) Pursuant to the contract, RSCAC was to

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<sup>1</sup>Honeywell’s motion for invalidity pertains to claims 1, 5, 7, and 10-11 of the ‘817 patent. (D.I. 135 at 1)

perform process development studies for the commercial production of HFC-245fa.

(*Id.*) The contract also obligated RSCAC to send monthly reports to Honeywell. (*Id.*)

In July 1994, RSCAC sent a monthly report to Honeywell in the United States (the "July 1994 report") relating the development work that the Russian engineers had performed. (*Id.*, ex. 5 at 6) In the report, RSCAC described the "liquid phase synthesis of HFC-245fa from HCC-240fa"<sup>2</sup> and noted the resulting product yield. (*Id.*, ex. 5 at 6-7) The July 1994 report also contained a diagram of the equipment that RSCAC had used to carry out the process. (*Id.*, ex. 5 at 6) RSCAC, in the July 1994 report to Honeywell, further detailed that it carried out a reaction of HCC-240fa and HF in the presence of an antimony pentachloride catalyst using temperatures between 80 - 130 degrees Celsius and pressures between 2 - 40 bar.<sup>3</sup> (*Id.*, ex. 5 at 8) In early 1995, Honeywell, using the information that the Russians provided, duplicated RSCAC's experiments using similar conditions and equipment.<sup>4</sup> (D.I. 123, ex. 5 at 9)

In 1995, Honeywell employed a form entitled "Request and Authority for Patent Application Preparation" (the "RAFPAP form"). (D.I. 123, ex. 2) Generally, the

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<sup>2</sup>HCC-240fa is 1,1,1,3,3-pentachloropropane. (D.I. 135 at 3)

<sup>3</sup>On October 31, 1994, Honeywell entered into a licensing deal with Bayer AG to gain access to its portfolio of HFC-245fa use patents. (D.I. 178, ex. 55 at HON0033710-HON0033716) Pursuant to the deal, Honeywell paid Bayer \$1.5 million up-front and agreed to pay Bayer \$500,000 per year in minimum royalties beginning in 1997. (*Id.*)

<sup>4</sup>Based on Honeywell's work in February - April 1995, it filed the patent application for the '706 patent on July 3, 1996, entitled "Process for the Manufacture of [HFC-245fa] and 1,1,1,3,3,3,-Hexafluoropropane." (D.I. 123, ex. 2) The '706 patent, directed to an integrated manufacturing process for producing HFC-245fa from HCC-240fa, issued on June 9, 1998. (*Id.*)

RAFPAP form aided a Honeywell committee in determining whether or not to file a patent application.<sup>5</sup> (*Id.*, ex. 1) It asked inventors to provide an abstract of the invention and an “evaluation summary.” (*Id.*, ex. 2) The evaluation summary section required information regarding innovative content, value to the company of patenting, and the balance between disclosure and trade secret. (*Id.*) Inventors, for inventions that were “in use” or “definitely scheduled for use,” were told to “outline plans for use.” (*Id.*) “For inventions of possible use,” inventors were asked to “summarize evaluations which establish definite commercial value.” (*Id.*) “If [such] information [was] not available,” then inventors “state[d] why [the] application should not be deferred until such evaluation [was] obtained.” (*Id.*)

On April 15, 1995, Honeywell researchers submitted the form regarding the Buffalo work (the “April 15th form”). (*Id.*) The innovative content response related that the invention had “several novelties in the manufacturing process, including sulfuric acid absorption, water scrubbing, photochlorination and drying using M.S. 3A.” (*Id.*) The researchers described the value to the company of patenting the invention by stating that “HFC-245fa is the future substitute for 141b in blowing application. A commercial plant is scheduled to be built by 1999.” (*Id.*) Finally, with respect to the balance between trade secret and disclosure, it was noted that “[b]ecause of the competitiveness in the fluorocarbon business, it’s recommended to file a patent application to protect this technology.” (*Id.*)

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<sup>5</sup>Jay Friedenson (“Friedenson”), the creator of the form, testified that, in some cases, the committee was bypassed and the application simply was approved. (D.I. 123, ex. 1)

Throughout the summer of 1995, Honeywell continued working to develop and perfect its process for the preparation of HFC-245fa in Buffalo, New York ("Buffalo work"). (D.I. 178, exs. 65, 66) Improvements included finding optimum operating conditions, as well as designing and enabling downstream purification of the HFC-245fa product. (*Id.*) Honeywell also began designing and implementing a pilot plant to test the process for making HFC-245fa in August 1995.<sup>6</sup> (*Id.* at exs. 41, 65, 66)

The pilot plant "started up on [September 5] and shut down after 24 hours due to greater than expected corrosion. The reactor was damaged beyond repair." (*Id.*, ex. 41 at HON0032554) In early December 1995, Honeywell restarted its pilot plant. (*Id.*, ex. 42 at HON0033441-HON0033442) On February 5, 1996, Dr. Harry Tung ("Dr. Tung") first reported successful operation of the pilot plant in his quarterly status report to Honeywell.<sup>7</sup> (*Id.*) In March 1996, Honeywell began drafting the '706 patent's application, which related to Honeywell's Buffalo work. (D.I. 123, exs. 11, 12) On July 3, 1996, Honeywell filed the '706 patent application disclosing an "integrated manufacturing process for producing HFC-245fa . . . ." (*Id.*, ex. 33 at HON0033118)

### III. STANDARD OF REVIEW

A court shall grant summary judgment only if "the pleadings, depositions,

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<sup>6</sup>The parties dispute the completion date of Honeywell's Buffalo work. (D.I. 122 at 6; D.I. 175 at 6 n.3) Solvay, for purposes of this motion only, "does not dispute that Honeywell's Buffalo work culminated by August 31, 1995." (D.I. 122 at 6) Honeywell, however, contends that it "continued laboratory and pilot plant work on HFC-245fa and its process for producing HFC-245fa up to, and well past, the filing of the '706 patent application." (D.I. 175 at 6 n.3) In particular, Honeywell asserts that it completed the first successful trial run of the invention in February 1996. (*Id.* at 2)

<sup>7</sup>This status report covered the period from November 1995 to January 1996. (D.I. 178, ex. 42)

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 judgment as a matter of law.” Fed. R. Civ. P. 56(c). The moving party bears the burden of proving that no genuine issue of material fact exists. See *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 586 n.10 (1986). “Facts that could alter the outcome are ‘material,’ and disputes are ‘genuine’ if evidence exists from which a rational person could conclude that the position of the person with the burden of proof on the disputed issue is correct.” *Horowitz v. Fed. Kemper Life Assurance Co.*, 57 F.3d 300, 302 n.1 (3d Cir. 1995) (internal citations omitted). If the moving party has demonstrated an absence of material fact, the nonmoving party then “must come forward with ‘specific facts showing that there is a genuine issue for trial.’” *Matsushita*, 475 U.S. at 587 (quoting Fed. R. Civ. P. 56(e)). The court will “view the underlying facts and all reasonable inferences therefrom in the light most favorable to the party opposing the motion.” *Pa. Coal Ass’n v. Babbitt*, 63 F.3d 231, 236 (3d Cir. 1995). The mere existence of some evidence in support of the nonmoving party, however, will not be sufficient for denial of a motion for summary judgment; there must be enough evidence to enable a jury reasonably to find for the nonmoving party on that issue. See *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 249 (1986). If the nonmoving party fails to make a sufficient showing on an essential element of its case with respect to which it has the burden of proof, the moving party is entitled to judgment as a matter of law. See *Celotex Corp. v. Catrett*, 477 U.S. 317, 322 (1986).

#### **IV. DISCUSSION**

## A. Standard

Under 35 U.S.C. § 102(g)(2), an applicant is not entitled to a patent if “before the applicant’s invention thereof the invention was made in this country by another who had not abandoned, suppressed, or concealed it.” The Federal Circuit has explained that “if a patentee’s invention has been made by another, prior inventor who has not abandoned, suppressed, or concealed the invention, § 102(g) will invalidate that patent.” *Apotex USA, Inc. v. Merck & Co.*, 254 F.3d 1031, 1035 (Fed. Cir. 2001). The Federal Circuit also has observed that this section “retains the rules governing the determination of priority of invention.” *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1376 (Fed. Cir. 1986) (quoting *Kimberly-Clark Corp. v. Johnson & Johnson*, 745 F.2d 1437, 1444 (Fed. Cir. 1984)). To this end, a party alleging prior invention can establish that he was the first to invent by showing either: (1) he was first to reduce the invention to practice; or (2) he was first to conceive the invention and then exercised reasonable diligence in attempting to reduce the invention to practice from a date just prior to the applicant’s conception to the date of his reduction to practice. 35 U.S.C. § 102(g) (“In determining priority of invention . . . there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was the first to conceive and last to reduce to practice, from a time prior to conception by the other.”). As recognized by the Federal Circuit,

[a] principal purpose of § 102(g) is to ensure that a patent is awarded to a first inventor. However, it also encourages prompt public disclosure of an invention by penalizing the unexcused delay or failure of a first inventor to share the "benefit of the knowledge of [the] invention" with the public after the invention has been completed.

*Checkpoint Sys. v. United States Int'l Trade Comm'n*, 54 F.3d 756, 761 (Fed. Cir. 1995) (citing *Paulik v. Rizkalla*, 760 F.2d 1270, 1280 (Fed. Cir. 1985)).

Conception is the "formation in the inventor's mind of a definite and permanent idea of the complete and operative invention, as it is hereafter to be applied in practice." *Hybritech*, 802 F.2d at 1376 (citations omitted). A conception must encompass all limitations of the claimed invention, and "is complete only when the idea is so clearly defined in the inventor's mind that only ordinary skill would be necessary to reduce the invention to practice, without extensive research or experimentation." *Singh v. Brake*, 317 F.3d 1334, 1340 (Fed. Cir. 2002) (citations omitted). Put differently, every limitation must be shown to have been known to the inventor at the time the invention is alleged to have been conceived. *Davis v. Reddy*, 620 F.2d 885, 889 (C.C.P.A. 1980) (citing *Schur v. Muller*, 372 F.2d 546, 551 (1967); *Anderson v. Anderson*, 403 F. Supp. 834, 846 (D.D.C. 1975)). Because conception is a mental act, "it must be proven by evidence showing what the inventor has disclosed to others and what that disclosure means to one of ordinary skill in the art." *In re Jolley*, 308 F.3d 1317, 1321 (Fed. Cir. 2002) (quoting *Spero v. Ringold*, 377 F.2d 652, 660 (C.C.P.A. 1967)). The Federal Circuit has opined that a court should apply the "rule of reason" in determining conception. That is, the court should examine, analyze, and evaluate reasonably all pertinent evidence when weighing credibility of an inventor's story. *Holmwood v.*

*Sugavanam*, 948 F.2d 1236, 1239 (Fed. Cir. 1991). Evidence in the form of documents does not need to be corroborated. *Id.* Rather, “[o]nly the inventor’s testimony requires corroboration before it can be considered.” *Price v. Symsek*, 988 F.2d 1187, 1195 (Fed. Cir. 1993).

Reduction to practice may either occur actually or constructively. Actual reduction to practice requires a showing by the inventor that “the invention is suitable for its intended purpose.” *Mahurkar v. C.R. Bard, Inc.*, 79 F.3d 1572, 1578 (Fed. Cir. 1996). This may require actual testing for a complicated invention or may require only the complete construction of a prototype for a simple invention with obvious purpose and workability. *Id.* For a party alleging prior invention to establish by testimony that he actually reduced his invention to practice, he must corroborate his proffered testimony with independent evidence which is evaluated under a rule of reason considering all the evidence. *Loral Fairchild Corp. v. Matsushita Elec. Indus. Corp. Ltd.*, 266 F.3d 1358, 1363 (Fed. Cir. 2001). Notably, there is no requirement that the “prior invention” be commercialized in order for it to be actually reduced to practice. *Steinberg v. Seitz*, 517 F.2d 1359, 1363 (C.C.P.A. 1975). The key is whether the invention can be commercialized or has reached the point where “practical men [would] take the risk of commercializing the invention.” *Goodrich v. Harmsen*, 442 F.2d 377, 383 (C.C.P.A. 1971). Constructive reduction to practice, in contrast, occurs when a party alleging prior invention files a patent application on the claimed invention. *Hybritech*, 802 F.2d at 1376.

The party alleging prior invention must be able to show diligence “from a date just

prior to the other party's conception to . . . [the date of] reduction to practice [by the party first to conceive]." *Monsanto Co. v. Mycogen Plant Sci., Inc.*, 261 F.3d 1356, 1369 (Fed. Cir. 2001); *Mahurkar*, 79 F.3d at 1577. However, it is not necessary for a party alleging prior invention to drop all other work and concentrate solely on the particular invention involved. *Rines v. Morgan*, 250 F.2d 365, 369 (C.C.P.A. 1957). There also need not be evidence of activity on every single day if a satisfactory explanation is evidenced. *Monsanto*, 261 F.3d at 1369 (citations omitted). Additionally, determining whether the required "reasonable diligence" has been satisfied involves specific inquiry. *Id.* (citations omitted).

In order to avoid a finding that a prior invention was abandoned, suppressed, or concealed, the party alleging prior invention must take affirmative steps to make the invention publicly known. *Friction Div. Prods., Inc. v. E. I. Du Pont de Nemours & Co.*, 658 F. Supp. 998, 1013 (D. Del. 1987) (citing *Ralston Purina Co. v. Far-Mar-Co, Inc.*, 586 F. Supp 1176, 1215 (D. Kan. 1984)). The Federal Circuit has explained that,

when determining whether an inventor has abandoned, suppressed, or concealed an invention, a period of delay between completion of the invention and subsequent public disclosure may or may not be of legal consequence. The delay may be inconsequential if, for example, it is reasonable in length or excused by activities of the inventor. Furthermore, there is no particular length of delay that is per se unreasonable. Rather, a determination of abandonment, suppression, or concealment has "consistently been based on equitable principles and public policy as applied to the facts of each case." A court must determine whether, under the facts before it, any delay was reasonable or excused as a matter of law.

*Checkpoint*, 54 F.3d at 761 (citations omitted).

Finally, the party alleging prior invention must establish prior invention by clear

and convincing evidence. *Apotex*, 254 F.3d at 1037-38. If the party alleging prior invention does so, then the burden of production shifts to the patentee to produce evidence sufficient to create a genuine issue of material fact as to whether the party alleging prior invention abandoned, suppressed, or concealed the invention. *Id.* If the patentee carries this burden of production, then the party alleging prior invention may rebut the evidence of abandonment, suppression, or concealment with clear and convincing evidence. *Id.*

## **B. Discussion**

### **1. “Inventor” under § 102(g)**

It is undisputed that Honeywell replicated or reproduced the work of RSCAC’s engineers in accordance with RSCAC’s instructions, such that Honeywell “derived” its Buffalo work from the Russian engineers.<sup>8</sup> (D.I. 135 at 1, 4, 12 n.8) In other words, it is uncontested that the Russian engineers, working under contract with Honeywell, manufactured HFC-245fa from HCC-240fa using a continuous process in May 1994 and disclosed that work to Honeywell in a July 1994 report sent to the United States.<sup>9</sup> (D.I. 135 at 5) Also undisputed is that Honeywell first reduced the invention at issue to practice in the United States in August 1995, prior to Solvay’s asserted priority date of October 23, 1995. (D.I. 122 at 2 n.3)

Honeywell contends that, as a matter of law, any derivation by Honeywell from

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<sup>8</sup>Honeywell accepts Solvay’s versions of the facts as true for purposes of this motion; however, Honeywell reserves the right to dispute at trial that its prior inventive work was derived from a foreign source. (D.I. 135 at 1, 4, 12 n.8)

<sup>9</sup>For purposes of this motion, Honeywell accepts Solvay’s proposed claim construction and, consequently, so does the court. (D.I. 135 at 10 n.7)

foreign inventors is irrelevant to a § 102(g) defense.<sup>10</sup> (D.I. 135 at 12) Solvay, because RSCAC (not Honeywell) “conceived” of the invention abroad, asserts that Honeywell cannot be an “inventor” and, therefore, its prior work cannot qualify as prior art under § 102(g). (D.I. 171 at 1) More specifically, Solvay asserts that “mere reproduction” of a foreign invention in the United States does not make Honeywell an inventor because an inventor is involved in the conception of the invention, not the reduction to practice.<sup>11</sup> (D.I. 171 at 1-3) The court understands Solvay, in its assertions, to argue two legal interpretations of § 102(g): (1) that an inventor is one who conceives of an invention in the United States; and (2) that the “derivation” principle, reflected in § 102(f), is properly

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<sup>10</sup>Honeywell primarily relies on *Tyler Refrigeration Corp. v. Kysor Indus. Corp.*, 601 F. Supp. 590 (D. Del. 1985), *aff'd* 777 F.2d 687 (Fed. Cir. 1985). (D.I. 135 at 13) *Tyler*, however, is not dispositive. In *Tyler*, the court decided, on two separate and independent grounds, that the invention was prior art within the meaning of 35 U.S.C. § 102. *Tyler*, 601 F. Supp. at 600. The court first held that a Japanese invention, conceived and reduced to practice abroad, but successfully practiced in the United States pursuant to foreign instructions, was prior art under § 102(g). *Id.* The court next determined that the invention was anticipated because the party had made an admission to the PTO, during the patent’s prosecution, that the invention was prior art. *Id.* The Federal Circuit affirmed the district court based on the latter holding and explicitly noted that it declined to address the district court’s first determination. See *Tyler*, 777 F.2d at 690 (“Here again, we do not pass on the other grounds on which the court concluded that the [invention] was prior art within the meaning of 35 U.S.C. § 102.”) Solvay argues that *Tyler* is no longer good law. (D.I. 171 at 4) Because the court already has determined that *Tyler* is not dispositive of the present issue, the court declines to address this aspect of Solvay’s argument.

<sup>11</sup>Solvay’s argument is as follows. To establish the “first inventor” defense of § 102(g), “it must be shown that an ‘inventor’ made the claimed invention.” (D.I. 171 at 2 (citing *Dow Chemical Co. v. Astro-Valcour, Inc.*, 267 F.3d 1334 (Fed. Cir. 2001))) Because the touchstone of inventorship is conception, not reduction to practice, an inventor is one who is involved in conception. (D.I. 171 at 2-3 (citing *Burroughs Wellcome Co. v. Barr Laboratories, Inc.*, 40 F.3d 1223, 1227-28 (Fed. Cir. 1994) and *Pfaff v. Wells Electronics, Inc.*, 525 U.S. 55, 60 (1998)))

considered within the definition of inventor as used in § 102(g). (See D.I. 171 at 4-5)

### a. Conception

Solvay asserts three grounds which, it contends, mandate that an inventor “conceive” of his or her invention in the United States: (1) the Supreme Court’s decision in *Pfaff v. Wells Electronics, Inc.*, 525 U.S. 55 (1998); (2) the addition of “inventor” in a 1999 amendment to § 102(g); and (3) the Federal Circuit’s holding in *Dow Chemical Co. v. Astro-Valcour, Inc.*, 267 F.3d 1334 (Fed. Cir. 2001). (D.I. 171 at 4)

In *Pfaff*, the Supreme Court addressed “whether the commercial marketing of a newly invented product may mark the beginning of the 1-year period even though the invention ha[d] not yet been reduced to practice” under § 102(b). 525 U.S. at 57. The Supreme Court held that, in the § 102(b) context, “[t]he primary meaning of the word ‘invention’ . . . unquestionably refers to the inventor’s conception rather than to a physical embodiment of that idea.” *Id.* at 60. The Supreme Court also noted that the only place within the Patent Act to mention “reduction to practice” was § 102(g), which resolves priority disputes. *See id.* at 61. Further, “assuming diligence on the part of the applicant, it is normally the first inventor to conceive, rather than the first to reduce to practice, who establishes the right to patent” under § 102(g). *See id.*

The Federal Circuit, in *Dow Chemical*, addressed conception as it relates to the use of “inventor” under § 102(g).<sup>12</sup> 267 F.3d at 1340-41. Similar to the case at bar, *Dow*

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<sup>12</sup>*Dow Chemical* also held that the inclusion of the word “inventor” in a 1999 amendment to § 102(g) did not change the section’s meaning because that section had always been understood to apply to inventors. 267 F.3d at 1340. Specifically, prior to 1999, “§ 102(g) prohibited an applicant from receiving a patent if, prior to the applicant’s invention, ‘the invention was made in this country **by another** . . . .’” *Dow Chemical*, 267 F.3d at 1340 (emphasis and omission in original). “The 1999 Act changed this

*Chemical* involved a priority dispute under § 102(g) where defendants (the alleged first inventors) had licensed technology as reflected in a Japanese patent.<sup>13</sup> *Id.* In *Dow*, the defendants applied the licensed technology to their own production of foam. *Id.*

Plaintiff argued that, even if the defendants reduced the invention to practice, defendants nevertheless failed to conceive of any invention that occurred as a result of its testing and production of foam; thus, the defendants could not be considered to be an inventor as required by § 102(g). *Id.* The Federal Circuit rejected Dow's argument and held that conception does not require an inventor to know that his or her invention is patentable; rather, an inventor must appreciate the fact of what he or she has made. *Id.*

Consistent with the Supreme Court's decision in *Pfaff*, Honeywell must demonstrate that it "conceived" the invention at issue. As noted above, conception is the "formation in the inventor's mind of a definite and permanent idea of the complete and operative invention," such that only ordinary skill in the art would be necessary to reduce the invention to practice. *Hybritech*, 802 F.2d at 1376 (citations omitted); *Singh*, 317 F.3d at 1340. Solvay did not provide, nor was the court able to find, any authority to support the notion that conception must occur in the United States under § 102(g). (See D.I. 171 at 4) Even if Solvay's assertion is correct, the court concludes that Honeywell conceived the invention at issue in the United States upon receipt of RSCAC's instructions, because it was at this point that Honeywell possessed a definite and

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language to: 'The invention was made in this country **by another inventor . . .**'" *Id.* (emphasis and omission in original).

<sup>13</sup>The contract in the case at bar provided that "full title and rights to inventions, whether patented or not, conceived or made resulting from the [p]roject [w]ork shall belong to Allied Signal . . . ." (D.I. 171, ex. 1 at HON0026283)

permanent idea of the complete and operative invention, such that it appreciated the fact of its invention.<sup>14</sup> See *Dow Chemical*, 267 F.3d 1341. Moreover, Honeywell has demonstrated conception by clear and convincing evidence as it is undisputed that its receipt of RSCAC's instructions facilitated Honeywell's actual reduction to practice of the invention.<sup>15</sup>

### b. Derivation

Although akin, derivation and priority are distinct concepts.<sup>16</sup> *Price v. Symsek*, 988 F.2d 1187, 1190 (Fed. Cir. 1993). Derivation focuses on "originality" – who invented

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<sup>14</sup>In addition to *Tyler*, other authority exists which supports that conception occurs upon receipt of instructions, such that one having ordinary skill could reduce the invention to practice, even if those instructions came from abroad. See *Scott v. Koyama*, 281 F.3d 1243, 1246-47 (Fed. Cir. 2002) ("Thus the inventor of an invention of foreign origin may rely on the date that the invention was disclosed in the United States, as a conception date for priority purposes."); *Stahelin v. Secher*, 24 U.S.P.Q. 2d 1513, 1521 (B.P.A.I. 1992) (stating that plaintiff who conceived his invention in Switzerland "may still be awarded priority by proving a preponderance of the evidence an introduction of conception into the United States prior to [defendant]'s constructive reduction to practice coupled with reasonable diligence from a time period just prior to [defendant]'s entry into the field up to a reduction to practice by [plaintiff]."); *Chan v. Kunz*, 231 U.S.P.Q. 462, 468-69 (B.P.A.I. 1984) (finding conception in the United States upon receipt of minutes from meeting in Switzerland); see also *Shurie v. Richmond*, 699 F.2d 1156, 1158 (Fed. Cir. 1983) (emphasizing § 102(g)'s "made in this country" language and holding that a patent applicant must demonstrate that he reduced the invention to practice in the United States).

<sup>15</sup>Honeywell also argues that "it is immaterial whether Honeywell **first** conceived of the [invention] or whether it **first** introduced a foreign conception in the United States." (D.I. 193 at 3) (emphasis in original) In other words, Honeywell asserts that it is irrelevant whether Honeywell or RSCAC conceived the invention because, under either scenario, it is evident that Solvay was not the first inventor. (*Id.*) The court declines to address this argument based on its resolution of the issue as discussed above.

<sup>16</sup>The concept of derivation is found in 35 U.S.C. § 102(f), which provides that "[a] person shall be entitled to a patent unless . . . he did not himself invent the subject matter sought to be patented . . . ."

the claimed subject matter.<sup>17</sup> *Id.* “Under this attack on a patent or patent application, the proponent asserts that the patentee did not ‘invent’ the subject matter of the count because the patentee derived the invention from another.” *Id.* (citing *Davis v. Reddy*, 620 F.2d 885, 882 n.2 (C.C.P.A. 1980)). “Contrasted to derivation, a claim to priority of invention does not question whether the patentee ‘invented’ the subject matter of the count, but instead focuses on which party **first** invented the subject matter of the count.” *Id.* (emphasis in original). In other words, the inventorship issue to be decided, with respect to derivation, “is merely who conceived the invention for which patent protection is sought, and not who first conceived that invention.” Robert L. Harmon, *Patents and the Federal Circuit* § 3.3 (4th ed. 1999).

As mentioned above, Solvay argues that Honeywell cannot be an “inventor” for purposes of § 102(g) because RSCAC is the original inventor. (D.I. 171 at 5) Solvay, however, cites no authority for its position; instead, it notes that “[a]lthough the concept of derivation typically arises in cases where a patent challenger is asserting that a patentee derived his invention from another, thereby invalidating the patent, the reasoning is equally applicable in this case.” (See D.I. 171 at 5) Solvay also did not present any policy reasons for its asserted interpretation. (See *id.*)

The case law discussed above establishes that priority and derivation are distinct concepts; indeed, each is expressed in a separate subsection of § 102. See 35 U.S.C. §§ 102(f) - (g). Section 102(g) exists to determine which conception occurred first and,

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<sup>17</sup>“To show derivation, the party asserting invalidity must prove both prior conception of the invention by another and communication of that conception to the patentee.” *Gambro Lundia AB v. Baxter Healthcare Corp.*, 110 F.3d 1573, 1576 (Fed. Cir. 1997).

as such, contemplates multiple conceptions, as long as each inventor “appreciates” his invention. Under these circumstances, where both parties’ motions were filed under § 102(g), the court declines to read the “originality” requirement of § 102(f) into § 102(g). (See D.I. 121, 134) This is not to say that the court has concluded that Honeywell is the “inventor” for purposes of § 102(f) but, rather, that Honeywell’s status as an “inventor,” pursuant to § 102(f), is not properly before the court.<sup>18</sup> 35 U.S.C. §§ 102(f)-(g); see also *Mycogen Plant Science, Inc. v. Monsanto Co.*, 61 F. Supp. 2d 199, 241 (D. Del. 1999) (“Because the validity of [defendant’s] patent is not at issue here, the court need not address [plaintiff’s] derivation argument.”). Accordingly, based on the undisputed facts, Honeywell is the first inventor unless it abandoned, suppressed or concealed its invention. See 35 U.S.C. § 102(g).

## **2. Abandoned, Suppressed or Concealed**

Because Solvay accepts that Honeywell is the first inventor of the subject matter claimed in the ‘817 patent for purposes of its motion, the only issue before the court is whether Honeywell abandoned, suppressed or concealed the invention.<sup>19</sup> See 35 U.S.C. § 102(g); (D.I. 122 at 1). Solvay argues that Honeywell’s abandonment, suppression or concealment of its invention is demonstrated through: (1) Honeywell’s alleged policy to suppress inventions for commercial reasons when their value is unknown; (2) Honeywell’s change in attitude about its market predictions for HFC-245fa

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<sup>18</sup>The court notes that Honeywell’s ‘706 patent is not at issue in the case at bar.

<sup>19</sup>Consistent with the court’s above holding, the court treats Honeywell as the “inventor” – not RSCAC, as argued by the parties at oral argument. (See D.I. 204 at 108:20-109:2; 112:1-9) Consequently, Honeywell’s motion for leave to file a supplemental brief is denied (D.I. 205).

as the predictions correspond with the Department of Energy's ("DOE") regulatory activity; and (3) Honeywell's failure to disclose the invention in the '706 patent.<sup>20</sup>

Honeywell asserts that no delay occurred and that, even if it did delay in filing the patent application, this delay is excusable because Honeywell was perfecting its invention.

(D.I. 175)

"[C]ase law distinguishes between two types of suppression and concealment: cases in which the inventor deliberately suppresses or conceals his invention, and cases in which a legal inference of suppression or concealment is drawn based on 'too long' a delay in filing a patent application." *Fujikawa v. Wattanasin*, 93 F.3d 1559, 1567 (Fed.

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<sup>20</sup>Solvay also argues that Honeywell's abandonment, suppression or concealment is demonstrated through Honeywell's failure to disclose its Buffalo work in the '706 patent. (D.I. 171 at 7) More specifically, Solvay alleges that Honeywell's Buffalo work was not disclosed until May 23, 2003 when Honeywell filed the patent application for U.S. Patent No. 7,214,839 ("the '839 patent"). (*Id.* at 7-8, ex. 4) During prosecution of the '839 patent, Honeywell distinguished its '706 patent from the '839 based on the molar ratio of HF to HCC-240fa. (*Id.*, ex. 5 at 11) In particular, Honeywell stated that "there is **no** teaching anywhere in [the '706 patent] that offers a motivation for one skilled in the art to look outside this mole ratio of 4-10, much less to the much higher ratio of 15:1 or more." (*Id.* (emphasis in original)) Solvay thus contends that Honeywell views the inventions reflected in the '706 and '839 patents as "patentably distinct processes." (*Id.* at 8)

Honeywell, in December 2007, disclaimed the '839 patent pursuant to 37 C.F.R. § 1.321(b). (D.I. 178, ex. 39) The disclaimer explained that Honeywell had realized, through its pursuit of the present litigation, that the statements made during the prosecution of the '839 patent, and identified above by Solvay, were "incorrect." (*See id.*) Solvay characterizes Honeywell's disclaimer as a "futile litigation driven attempt to rewrite history." (D.I. 171 at 10) Honeywell asserts that Solvay's arguments in this regard are irrelevant because its motion for summary judgment of invalidity does not concern the claims of the '817 patent which contain the ratio limitations. (D.I. 193 at 11) The court agrees with Honeywell. (*See* D.I. 194, ex. 15 (showing that claims 1, 5, 7, and 10-11 do not refer to a molar ratio)) Moreover, the court notes that Solvay's argument, in this respect, is contrary to its previous concession that "Solvay has assumed that the Buffalo work was actually disclosed in the '706 patent." (D.I. 189 at 3 n.1)

Cir. 1996) (citing *Paulik*, 760 F.2d at 1273. “Intentional suppression refers to situations in which an inventor ‘designedly, and with the view of applying it indefinitely and exclusively for his own profit, withholds his invention from the public.” *Flex-Rest, LLC v. Steelcase, Inc.*, 455 F.3d 1351, 1358 (Fed. Cir. 2006); *Fujikawa*, 93 F.3d at 1567 (quoting *Paulik*, 760 F.2d at 1273). “Intentional suppression [ ] requires more than the passage of time. It requires evidence that the inventor intentionally delayed filing in order to prolong the period during which the invention is maintained in secret.” *Flex-Rest*, 455 F.3d at 1358-59. Whether an inference of suppression or concealment is justified depends on the circumstances of each case and it is the total conduct of the first inventor that is the controlling factor, not the time elapsed.<sup>21</sup> See *Fujikawa*, 93 F.3d at 1568. The determination of whether either kind of suppression or concealment occurred “has consistently been based on equitable principles and public policy as applied to the facts of each case.” *Paulik*, 760 F.2d at 1273.

The case at bar concerns intentional suppression. (D.I. 122 at 6; D.I. 189 at 2) Solvay’s abandonment theory rests on the allegation that Honeywell maintained a policy of commercial suppression for inventions which had insufficient commercial value. (See D.I. 122) As evidence of its assertion, Solvay highlights the language of the RAFPAP form, which states: “If information [is] not available, state why [the] application should not be deferred until such evaluation is obtained.” (D.I. 123, ex. 2) Solvay also points to the deposition testimony of Friedenson who, when asked whether the last section of the

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<sup>21</sup>Important factors to be considered in this determination are “the circumstances surrounding the first inventor’s delay and the reasonableness of that delay . . . .” *Fujikawa*, 93 F.3d at 1568.

form demonstrated the company's policy to defer a patent application for commercial reasons, responded.<sup>22</sup>

As I say, if it did go to committee we did have people there who could fill in a lot of blanks and a lot of background with respect to technical merit, commercial plans and so forth. And so most of the time those questions could be answered in the committee. If they couldn't be answered in the committee and there was some question as to whether or not it had sufficient commercial value to justify proceeding with the expense and time of preparing a patent application, it would be deferred.

(*Id.*, ex. 1 at 94:10-95:9) Notably, this testimony concerned Honeywell's use of the RAFPAP form generally and not the April 15, 1995 form, which related to the '706 patent. (*See id.*) Honeywell argues that Friedenson's testimony does not establish a policy of commercial suppression and interprets the above passage to state that Honeywell's RAFPAP form was used to defer the **decision** on whether to file a patent application, not whether to file a patent application at all. (D.I. 175 at 12) More specifically, Honeywell asserts that the language on the RAFPAP form highlighted by Solvay is a first line control measure, which merely asks the inventor to explain why Honeywell should expend corporate resources on the proposed invention. (*Id.*) Solvay argues that the distinction asserted by Honeywell is irrelevant because, under either interpretation, delay results. (D.I. 189 at 9)

Solvay also contends that Honeywell, in August 1995, did not believe that any market for HFC-245fa would exist until January 1, 2003 due to the Department of Energy's ("DOE") proposed regulations regarding the phasing out of refrigerant 141b ("HCFC-141b") and, consequently, deferred filing a patent application. (*See* D.I. 122 at

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<sup>22</sup>Objections relating to this question were form, incomplete hypothetical and that it was vague. (D.I. 123, ex. 1 at 94:19-20)

3) Then, in December 1995, Solvay alleges that Honeywell's attitude changed because the DOE regulations mandated a sooner than expected replacement for HCFC-141b.<sup>23</sup> (See *id.* at 7) In particular, a Honeywell internal memorandum, written on December 21, 1995, stated that "the initial plans for commercialization of HFC-245fa were for the year 2002. An option is now considered to start a smaller-scale production . . . of the blowing agent in 1999." (D.I. 123, ex. 8 at HON0001663)

Based on the evidence as discussed above, the court finds that Honeywell's RAFFAP form is used to determine the most appropriate form of intellectual property protection for an invention. In particular, one purpose of the disputed section of the RAFFAP form is to determine which type of intellectual property protection Honeywell will pursue for the invention and, consequently, the distinction drawn by Honeywell regarding Friedenson's testimony is not wholly irrelevant. (See D.I. 123, ex. 2 (RAFFAP's evaluation summary section requires inventors to discuss the "balance between patent and trade secret")) The issue, therefore, is whether Honeywell had determined that the invention at issue should be pursued as a trade secret or through the patent system. See *Apotex*, 254 F.3d at 1039 (noting that evidence of delay based on a decision to retain the invention as trade secret is important to whether a first inventor delayed in filing a patent application).

Although a general policy as asserted by Solvay certainly is relevant to a determination of whether Honeywell abandoned, suppressed or concealed the invention described in the '706 patent, Solvay has failed to produce evidence that Honeywell

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<sup>23</sup>HFC-245fa was the intended replacement for HCFC-141b.

employed this “policy” with respect to the ‘706 patent. Specifically, the April 15th form (i.e., the RAFPAP form for the ‘706 invention) does not indicate that Honeywell had doubts about which type of intellectual property protection it would seek and, consequently, does not evidence that Honeywell employed its policy (if it even exists) with respect to the invention at issue. (See D.I. 123, ex. 2 (“A commercial plant is scheduled to be built by 1999”; “[b]ecause of the competitiveness in the fluorocarbon business, it’s recommended to file a patent application to protect this technology.”)) In other words, the April 15th form demonstrates Honeywell’s intent to move forward with filing a patent application and eventually disclose the invention at issue. See *Flex-Rest*, 455 F.3d at 1358-59. Significantly, this form was completed before the DOE activity alleged to have motivated Honeywell to pursue a patent application.<sup>24</sup> (See D.I. 189 at 7 n.8 (asserting significance of DOE activity in late December 1995)) The DOE activity, Honeywell’s market beliefs for HFC-245fa, and the internal memorandum do not show that Honeywell may have abandoned, suppressed or concealed its invention. If anything, this evidence demonstrates a change of pace by Honeywell in the rate at which it pursued the development of the invention, in that Honeywell accelerated the rate.

Solvay has failed to produce evidence from which a reasonable jury could conclude that Honeywell intentionally abandoned, concealed or suppressed its invention. See *Flex-Rest*, 455 F.3d at 1358 (citing *Dow Chemical*, 267 F.3d at 1339)

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<sup>24</sup>In addition, the court notes that Honeywell demonstrated that the first run of the pilot plant occurred in September 1995. It was during this run that the reactor was damaged “beyond repair.”

(explaining that the patentee's burden, after prior invention is established, is to produce sufficient evidence to create a genuine issue of material fact as to whether the prior inventor abandoned, suppressed or concealed the invention). Specifically, there is nothing before the court to indicate that Honeywell withheld its invention from the public "designedly," and with the view of applying it indefinitely and exclusively for his own profit, or that Honeywell "intentionally delayed filing in order to prolong the period during which the invention [was] maintained in secret." See *Fujikawa*, 93 F.3d at 1158-59 (internal quotations omitted). Moreover, the court finds that, under either an intentional or inferred suppression theory of abandonment, Solvay has not produced evidence that Honeywell delayed.<sup>25</sup> See *Paulik v. Rizkalla*, 760 F.2d 1270, 1273-74 (Fed. Cir. 1985) ("The cases show either intentional concealment or an unduly long delay after the first inventor's reduction to practice."). That is to say, Honeywell was moving towards public disclosure, hence, it did not abandon, suppress, or conceal its invention. Invention is not a neat process and "public policy favors allowing reasonable time for inventors and their assignees to become properly acquainted with the subject matter involved rather than have them rush to the [PTO] with their first encounter." See *id.* at 1272; see also *Halbert v. Schuurs*, 220 U.S.P.Q. 558, 565-66 (B.P.A.I. 1983).

## V. CONCLUSION

For the reasons stated above, Honeywell's motion for summary judgment of invalidity (D.I. 134) is granted and Honeywell's motion for leave to file a supplemental brief (D.I. 205) is denied. Solvay's motion for summary judgment of no invalidity (D.I.

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<sup>25</sup>Consequently, the court does not address the parties' arguments regarding whether the "improvements" were reflected in the '706 patent.

121) is denied. An appropriate order shall issue.

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

SOLVAY, S.A., )  
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 Plaintiff, )  
 )  
 v. ) Civ. No. 06-557-SLR  
 )  
 HONEYWELL SPECIALTY )  
 MATERIALS )  
 LLC and HONEYWELL )  
 INTERNATIONAL INC., )  
 )  
 Defendants. )

**ORDER**

At Wilmington this 9th day of December, 2008, consistent with the memorandum opinions and memorandum order issued this same date;

IT IS ORDERED that:

1. Plaintiff Solvay, S.A.'s ("Solvay") motion for summary judgment of infringement (D.I. 118) is granted, to wit: claims 1, 5-7, and 10-11 are infringed.
2. Solvay's motion for summary judgment of no invalidity (D.I. 121) is denied.
3. Defendants Honeywell Specialty Materials LLC and Honeywell International Inc.'s (collectively "Honeywell") motion for summary judgment of non-infringement (D.I. 132) is granted in part and denied in part, to wit: claims 12, 13-18 and 21-22 are not infringed.
4. Honeywell's motion for summary judgment of invalidity (D.I. 134) is granted,

to wit: claims 1, 5, 7 and 10-11 are invalid.

5. Given the above decisions, the following motions are denied as moot:

a. Honeywell's motion for leave to file a supplemental brief regarding its motion for invalidity and Solvay's motion of no invalidity. (D.I. 205)

b. Solvay's motions for summary judgment regarding the charge of inequitable conduct and Honeywell's seventh affirmative defense of laches, equitable estoppel and prosecution laches. (D.I. 115; D.I. 125)

c. Honeywell's motion for leave to file a supplemental brief regarding its seventh affirmative defense of laches, equitable estoppel and prosecution laches. (D.I. 208)

d. Solvay's Daubert motions regarding Honeywell's damages expert and patent law expert. (D.I. 128; D.I. 130)

6. The clerk of court is directed to enter judgment against plaintiff Solvay, S.A. and in favor of defendants Honeywell Specialty Materials LLC and Honeywell International Inc.

  
United States District Judge