

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION**

ONLY THE FIRST, LTD.,)
)
 Plaintiff,)
)
 v.)
)
 SEIKO EPSON CORPORATION,)
)
 Defendant.)

Case No. 07-cv-1333
(Consolidated with 09-cv-4655)

Judge Robert M. Dow, Jr.

SOC-USA, LLC,)
)
 Plaintiff,)
)
 v.)
)
 OFFICE DEPOT, INC., and EPSON)
 AMERICA, INC.,)
)
 Defendants.)

MEMORANDUM OPINION AND ORDER

Plaintiff SOC-USA, LLC (“Plaintiff”) has sued Defendants Office Depot, Inc. and Epson America, Inc. for infringement of U.S. Patent No. 7,465,018 (“the ’018 patent”). Defendants have counterclaimed, alleging, among other things, that the ’018 patent is invalid. In this consolidated action, the Court has construed certain disputed claims in both the ’018 patent and a related patent, U.S. Patent No. 7,058,399 (“the ’339 patent”), and has ruled on motions for summary judgment filed by the Defendants in both cases. Specifically, on September 29, 2010, the Court granted Seiko Epson Corporation’s motion for summary judgment of non-infringement of the ’339 patent. In a separate order issued that same day, the Court granted Office Depot, Inc. and Epson America, Inc.’s motion for summary judgment of invalidity based on indefiniteness as

to claims 7, 9, 15, 17, 19, and 21 of the '018 patent, but denied their motion as to claims 11, 13, 27, and 29 (“the remaining asserted claims”).

Now before the Court are Office Depot, Inc. and Epson America, Inc.’s (collectively, “Defendants”) two motions for summary judgment of invalidity on anticipation and obviousness grounds, as well as the parties’ related discovery motions. Defendants argue that the remaining asserted claims of the '018 patent are invalid in light of certain references in the prior art. For the reasons set forth below, the Court grants Defendants’ motion for summary judgment of invalidity based on the Wilcox Book [185], grants Defendants’ motion for summary judgment of invalidity based on Berns, Viggiano, ederMCS, and Kueppers [189], denies Plaintiff’s motion to strike [228], grants Defendants’ motion for leave to file a sur-reply [233], and grants Defendants’ motion to amend its Local Rule 56.1 statement of material facts [238].

I. Background

A. Factual Background

The Court takes the relevant facts primarily from the parties' Local Rule ("L.R.") 56.1¹ statements of material facts. Throughout this opinion, the Court will refer to the parties' L.R. 56.1 statements as follows: Defendants' statement of facts in support of their motion for summary judgment of invalidity based on the Wilcox Book ("Def. Wilcox SOF") [187]; Defendants' statement of facts in support of their motion for summary judgment of invalidity based on Berns, Viggiano, ederMCS, and Kueppers ("Def. Berns SOF") [191, 238]; Plaintiff's response to Defendants' statement of facts in support of their motion for summary judgment of invalidity based on the Wilcox Book and Plaintiff's Wilcox Book statement of additional facts ("Pl. Wilcox Resp." and "Pl. Wilcox SOF") [245]; Plaintiff's response to Defendants' statement of facts in support of their motion for summary judgment of invalidity based on Berns, Viggiano, ederMCS, and Kueppers and Plaintiff's Berns, Viggiano, ederMCS, and Kueppers statement of additional facts ("Pl. Berns Resp. and "Pl. Berns SOF") [244]; Defendants' Response to Plaintiff's Wilcox Book statement of additional facts ("Def. Wilcox Resp.") [249]; and Defendants' Response to Plaintiff's Berns, Viggiano, ederMCS, and Kueppers statement of additional facts ("Def. Berns Resp.") [250].

¹ Local Rule 56.1 requires that statements of facts contain allegations of material fact and that factual allegations be supported by admissible record evidence. See L.R. 56.1; *Malec v. Sanford*, 191 F.R.D. 581, 583-85 (N.D. Ill. 2000). The Seventh Circuit has confirmed repeatedly that a district court has broad discretion to require strict compliance with L.R. 56.1. See, e.g., *Koszola v. Bd. of Educ. of the City of Chicago*, 385 F.3d 1104, 1109 (7th Cir. 2004); *Curran v. Kwon*, 153 F.3d 481, 486 (7th Cir. 1998) (citing *Midwest Imports, Ltd. v. Coval*, 71 F.3d 1311, 1317 (7th Cir. 1995 (collecting cases))). Where a party has offered a legal conclusion or a statement of fact without offering proper evidentiary support, the Court will not consider that statement. See, e.g., *Malec*, 191 F.R.D. at 583. Additionally, where a party improperly denies a statement of fact by failing to provide adequate or proper record support for the denial, the Court deems that statement of fact to be admitted. See L.R. 56.1(a), 56.1(b)(3)(B); see also *Malec*, 91 F.R.D. at 584. The requirements for a response under L.R. 56.1 are "not satisfied by evasive denials that do not fairly meet the substance of the material facts asserted." *Bordelon v. Chicago Sch. Reform Bd. of Trs.*, 233 F.3d 524, 528 (7th Cir. 2000). The Court also disregards any additional

1. The '018 Patent

The '018 patent relates to color combinations to be used in a color printing system. The abstract for the '018 patent describes the invention as:

A color printing system comprising a combination of at least four, and preferably six coloring materials, each of a different color, wherein these colors are selected from (1) an orange-red; (2) a violet-red; (3) a violet-blue; (4) a green-blue; (5) a green-yellow; and (6) an orange-yellow; as well as white and black. This system may be incorporated into a wide range of printing devices and provides a means of achieving a wide range of colors.

'018 patent, Abstract. The '018 patent is a continuation of the '339 patent, and claims priority to a provisional application filed on January 27, 2003. (Pl. Wilcox Resp. ¶ 6; Pl. Berns Resp. ¶ 6.)

As noted above, the only claims in the '018 patent at issue here are claims 11, 13, 27, and 29. Claims 11 and 27 of the '018 patent, both independent claims, have the following format:

A colour printing system comprising a combination of at least four coloured materials, each of a different colour, wherein at least three of the four colours are selected from:

- (1) a violet-red * * *
- (2) an orange-red * * *
- (3) a violet-blue * * *
- (4) a green-blue * * *
- (5) a green-yellow * * * and
- (6) an orange-yellow * * *

provided the combination is other than cyan, magenta, a yellow and black.

'018 patent, col. 14, ll. 33–51; col. 27, ll. 14–27. The two claims differ from one another only in the way in which they describe the claimed colors. Claim 11 defines the colors in terms of

statements of fact contained in a party's response brief but not in its L.R. 56.1(b)(3)(B) statement of additional facts. See, e.g., *Malec*, 191 F.R.D. at 584 (citing *Midwest Imports*, 71 F.3d at 1317). Similarly, the Court disregards a denial that, although supported by admissible record evidence, does no more than negate its opponent's fact statement. In other words, it is improper for a party to smuggle new facts into its response to a party's L.R. 56.1 statement of fact, and the Court will disregard such facts. See, e.g., *Ciomber v. Cooperative Plus, Inc.*, 527 F.3d 635, 643 (7th Cir. 2008).

“intensity.”² Claim 27 defines the colors in terms of the “area under a graph of reflectance (percent) versus wavelength.”³ Claims 13 and 29 depend from claims 11 and 27, respectively, and add the limitation, “wherein each colouring material is an ink, dye, toner or pigment.” ’018 patent, col. 14, ll. 60–61; col. 18, ll. 56–57. While the preferred embodiment of the ’018 patent is the use of all six disclosed colors in a printing system, “where necessary a selection from amongst these colours may be made, and the selection may comprise three or four of the colours, combined with black or white.” (Pl. Wilcox Resp. ¶ 10.)

The ’018 patent specification includes six spectroscopic curves representing an example of each of the six claimed colors. (Pl. Wilcox Resp. ¶¶ 11–12.) The curve representing an orange-red appears below:

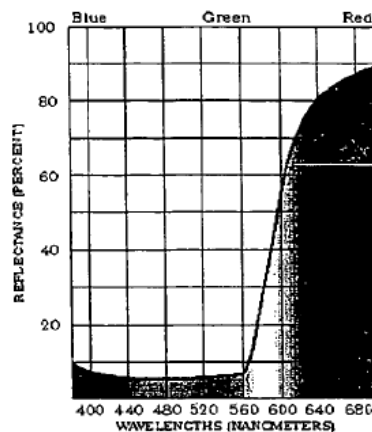


Figure 1A

The patent also discloses “[t]ypical examples of pigments or dyes” that may be used to produce “colouring material” in each of the claimed colors. (Pl. Wilcox Resp. ¶¶ 20–25.) For

² Claim 11 defines all six claimed colors according to the following pattern: “a violet-red, wherein red has a higher *intensity* than violet, and violet has a higher intensity than orange.” ’018 patent, col. 14, ll. 36–37 (emphasis added).

³ Claim 27 defines all six claimed colors according to the following pattern: “a violet-red, wherein red has a greater *area under a graph of reflectance (percent) versus wavelength* than violet, and violet has a greater area under a graph of reflectance (percent) versus wavelength than orange.” ’018 patent, col. 18, ll. 17–21 (emphasis added).

example, to achieve an orange-red, the '018 patent suggests using pigment “Red 108 (Cadmium Red Light).” (Pl. Wilcox Resp. ¶ 21.) Finally, the patent includes a “Colour Bias Wheel,” which is identified as “incorporating the colours of the present invention.” (Pl. Wilcox Resp. ¶ 27.) According to the '018 patent, “[t]he six colour types used in the system of the invention are illustrated in * * * the ‘Colour Bias Wheel.’” (Pl. Wilcox Resp. ¶ 28.) The “Colour Bias Wheel” from the '018 patent appears below:

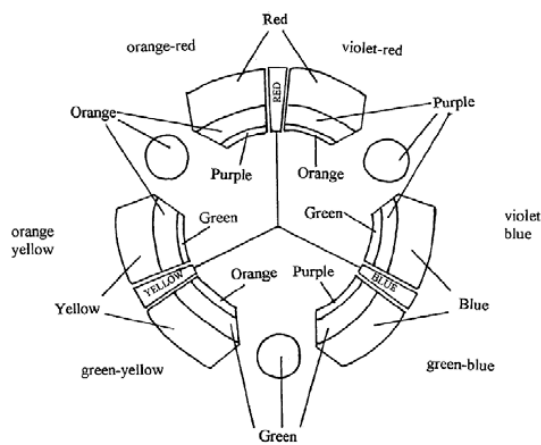


Figure 2

2. The Court’s Construction of the Claims

In a September 29, 2010 memorandum opinion and order, the Court construed certain disputed claim terms in the '018 patent. The Court construed the limitation “each of a different colour,” found in claims 11 and 27, as meaning that each colored material in a particular color printing system must be of a different color. The term “color”⁴ in that phrase refers to the six claimed colors plus black and white. For example, both magenta and light magenta are violet-reds, and therefore not “different colors” for purposes of the remaining asserted claims.

⁴ Consistent with the conventions employed in the Court’s prior opinions in this case, the Court uses the American spelling of “color” instead of the English spelling “colour” except where the word is used in a quotation.

The Court also construed the six colors terms found in claims 11 and 27 as having three separate limitations: (1) the wavelength limitation; (2) the highest reflectance limitation; and (3) the area limitation. The Court first pointed out that, like the '339 patent, each of the claimed colors in the '018 patent is defined in terms of the six basic colors—red, orange, yellow, green, blue, and violet (“component colors”). With the parties’ agreement, the Court adopted its previous construction (from its order construing the claims of the '339 patent) of the wavelength ranges for each of the component colors within the six colors disclosed in claims 11 and 27. Accordingly, the Court construed the wavelength ranges occupied by the component colors as follows: violet (400–440 nm), blue (420–490 nm), green (490–550 nm), yellow (550–590 nm), orange (590–620 nm), and red (610–700 nm). (See Def. Berns Resp. ¶ 3; Def. Wilcox Resp. ¶ 24.) The Court’s conclusion as to the wavelength range limitation was based largely on the table recited at column 6, line 60 through column 7, line 8 of the '018 patent (“wavelength table”). (Def. Wilcox Resp. ¶ 27.)

The Court then noted that each claimed color is defined by the order (measured in terms of, relevant here, “intensity” or “area under a graph of reflectance (percent) versus wavelength”) in which it reflects three specific component colors. (See Pl. Wilcox Resp. ¶¶ 30–35.) For orange-red, for example, the order is red followed by orange followed by violet. The Court construed claims 11 and 27 of the '018 patent as requiring that the first two component colors of each claimed color have the two highest “intensities” or greatest “areas under a graph of reflectance (percent) versus wavelength” out of all six basic colors. (Def. Berns Resp. ¶ 4; Def. Wilcox Resp. ¶ 24.)

The Court construed the term “intensity,” found in claim 11, and the term “area under a graph,” found in claim 27, both to mean “the area under the spectrographic graph of reflectance

(percent) versus wavelength occupied by the specified color.” (See Def. Berns Resp. ¶ 3; Def. Wilcox Resp. ¶¶ 24–25.)

Taking the three limitations together, the Court thus construed the claimed color “orange-red” found in claims 11 and 27 as follows:

- A color which, when analyzed spectroscopically, reflects in order of quantity or intensity, red followed by orange and then violet, wherein red and orange have the two highest quantities or intensities, respectively. The Court will refer to this limitation as the “highest reflectance limitation.”
- The relative quantities or intensities of each color are determined by comparing the areas under the spectroscopic graph of reflectance (percent) versus wavelength occupied by the specified color. The Court will refer to this limitation as the “area limitation.”
- The wavelength occupied by each specified color is as follows: violet: 400–440 nm; blue: 420–490 nm; green: 490–550 nm; yellow: 550–590 nm; orange: 590–620 nm; red: 610–700 nm. The Court will refer to this limitation as the “wavelength limitation.”

The Court construed the other five claimed colors according to the same pattern.

As to the limitation “provided the combination is other than cyan, magenta, a yellow and black,” found in both claims 11 and 27, the Court concluded that as long as a printing system contains a combination of four colored materials other than cyan, magenta, yellow, and black (where three are chosen from the six claimed colors), it falls within the scope of the asserted claims, even if the system also contains the combination of cyan, magenta, yellow, and black. The Court construed the terms “cyan,” “magenta,” and “yellow,” as “green-blue,” “violet-red,” and “green-yellow or orange-yellow,” respectively.

B. Procedural Background

On December 2, 2010, in accordance with the parties' agreed schedule, Defendants filed the two motions for summary judgment at issue here. In their motions, Defendants argue that the remaining asserted claims are invalid by anticipation and obviousness in light of the Wilcox Book and the Berns, Viggiano, ederMCS, and Kueppers references. Included in the supporting documents filed with the Defendants' motion for summary judgment as to Berns, Viggiano, ederMCS, and Kueppers were declarations from two of their experts, Gregory N. Radencic ("Mr. Radencic") and Dr. Robert Hunt ("Dr. Hunt"). As required by L.R. 56.1, Defendants also filed a statement of undisputed material facts that relied, in part, on the two declarations.

Asserting that it could not fully respond to Defendants' summary judgment motions of invalidity of the '018 patent without conducting discovery related to the declarations of its experts—including Dr. Hunt and Mr. Radencic—Plaintiff moved for discovery pursuant to Federal Rule of Civil Procedure 56(f), now Rule 56(d) pursuant to non-substantive rule changes effective December 1, 2010. On January 7, 2011, this Court granted Plaintiff's request for additional discovery pursuant to Rule 56(d). The parties agreed that Rule 56(d) discovery would close on May 6, 2011, and that Plaintiff's response to Defendants' invalidity summary judgment motions would be due on June 17, 2011.

On April 15, 2011, before the close of Rule 56(d) discovery and before Plaintiff had deposed Mr. Radencic and Dr. Hunt or filed its response to Defendants' summary judgment motions, Defendants filed what they titled "Supplemental Declaration[s]" for Mr. Radencic and Dr. Hunt [224, 225] ("the disputed declarations"). Both of the disputed declarations were filed in support of Defendants' motion for summary judgment of invalidity based on the Berns, Viggiano, ederMCS, and Kueppers references.

On Friday, April 29, 2011 at 10:54 p.m., the night before the deposition of another of Defendants' expert's, J.A. Steven Viggiano's ("Dr. Viggiano"), Defendants produced five additional documents. While meeting with Dr. Viggiano on the afternoon before his deposition, Dr. Viggiano told Defendants that he had done additional testing on certain color samples that he had tested in 1998. Once they learned of the testing, Defendants worked with Dr. Viggiano to prepare documents describing the new data and produced the documents to Plaintiff late that night. At the deposition the next day, over Plaintiff's objections, Defendants asked Dr. Viggiano questions about the newly-produced documents.

II. Analysis

A. Preliminary Issues

Before reaching the merits of Defendants' summary judgment motions, the Court must address (1) Plaintiff's motion to strike, (2) Defendants' motion for leave to file a sur-reply to the motion to strike, and (3) Defendants' motion for leave to file an amended L.R. 56.1 statement of material facts.

1. Plaintiff's Motion to Strike the Disputed Declarations

Plaintiff moves to strike the disputed declarations and the evidence submitted with them, arguing that the declarations "set forth new opinions based on new testing" of print samples that was not conducted until after Defendants moved for summary judgment. [228, at 1.] According to Plaintiff, because Defendants cannot demonstrate "excusable neglect" under Federal Rule of Civil Procedure 6(b)(1)(B), the Court should strike the disputed declarations from the summary judgment record.

In addition to claiming that Rule 6(b)(1)(B) is not the correct standard to use here, Defendants counter that the disputed declarations merely supplement the record with

spectroscopic testing that “confirms and corroborates the test results previously presented in support” of Defendants’ summary judgment motion [227, at 2], and that Plaintiff is not prejudiced by the disputed declarations and related evidence.

Rule 6(b)(1)(B) provides: “When an act may or must be done within a specified time, the court may, for good cause, extend the time on motion made after the time has expired if the party failed to act because of excusable neglect.” The Court agrees with Defendants that Rule 6(b)(1)(B) does not provide the correct standard here. First, Rule 6(b)(1)(B) states that a Court may extend time “on motion.” The issue here, however, is before the Court on Plaintiff’s motion to strike, not a motion by Defendants for leave to file a late document.

Second, Defendants correctly point out that they complied with the Court’s deadline by filing their motions for summary judgment and supporting documents—including Dr. Hunt and Mr. Radencic’s original declarations in support of the Berns, Viggiano, ederMCS, and Kueppers motion—by December 2, 2010. Plaintiff does not argue that Defendants failed to timely file their summary judgment motion or supporting documents; it argues instead that Defendants improperly supplemented their summary judgment filings with new evidence and expert opinions that had not previously been disclosed. That issue is properly analyzed under Federal Rules of Civil Procedure 26 and 37. See, e.g., *Rowe Int’l Corp. v. ECast, Inc.*, 586 F. Supp. 2d 924, 933 (N.D. Ill. 2008); *Solaia Tech. LLC v. ArvinMeritor, Inc.*, 361 F. Supp. 2d 797, 807 (N.D. Ill. 2005).

Rule 26(a)(2)(B) provides that an expert retained by a party to testify in a case must prepare a written report that includes “a complete statement of all opinions the witness will express and the basis and reasons for them; [and] the data or other information considered by the witness in forming them * * *.” Fed. R. Civ. P. 26(a)(2)(B)(i)-(ii). A party who has disclosed an

expert report under Rule 26(a)(2)(B) also has an ongoing duty to supplement its expert disclosures in a timely manner if the party learns that the information disclosed or the response is “incomplete or incorrect and if the additional corrective information has not otherwise been made known to the other parties during the discovery process or in writing.” Fed. R. Civ. P. 26(e)(1); see also Fed. R. Civ. P. 26(a)(2)(D). The duty to supplement, however, “does not provide an opening for wholly new opinions.” *Rowe Int’l Corp.*, 586 F. Supp. 2d at 933 n.1.

The sanctions for violating Rule 26(a) and (e) are severe: “If a party fails to provide information or identify a witness as required by Rule 26(a) or 26(e), the party is not allowed to use that information or witness to supply evidence on a motion, at a hearing, or at a trial, unless the failure was substantially justified or is harmless.” Fed. R. Civ. P. 37(c)(1). The Seventh Circuit has established a four-factor test for evaluating whether Rule 37 sanctions are warranted: (1) prejudice or surprise to the party against whom evidence is offered; (2) ability of the party to cure the prejudice; (3) likelihood of disruption to the trial; and (4) the proffering party’s bad faith or willfulness in not disclosing evidence at an earlier date. *David v. Caterpillar, Inc.*, 324 F.3d 851, 857 (7th Cir. 2003). Not all four factors must be met; preclusion of untimely or insufficiently disclosed evidence is “automatic and mandatory” where the violation is unjustified and harms the opposing party. *Finley v. Marathon Oil Co.*, 75 F.3d 1225, 1230 (7th Cir. 1996). The rationale behind Rule 37 “is to avoid an unfair ‘ambush’ in which a party advances new theories or evidence to which its opponent has insufficient time to formulate a response.” *Rowe Int’l Corp.*, 586 F. Supp. 2d at 934 (citing *Salgado by Salgado v. Gen. Motors Corp.*, 150 F.3d 735, 741 n.6 (7th Cir. 1998)).

Consistent with the authorities cited above, the Court first must determine whether the disputed declarations contain new opinions. If later-submitted opinions and analyses do not

differ substantially from opinions offered in the original declarations, they are not late for purposes of 26(a) and so not subject to Rule 37 preclusion. See *Rowe Int'l Corp.*, 586 F. Supp. 2d at 935; *Solaia Tech.*, 361 F. Supp. 2d at 807. If the Court finds, however, that Defendants have offered new expert opinions in the disputed declarations, the Court then must consider whether Plaintiff has been prejudiced by the filing. See *Rowe Int'l Corp.*, 586 F. Supp. 2d at 938; *Solaia Tech.*, 361 F. Supp. 2d at 807.

Mr. Radencic's "Supplemental" Declaration

Mr. Radencic, a Technology and Research Analyst employed by the Printing Industry of America ("the PIA"), was hired by Defendants to conduct a spectroscopic analysis of certain printed samples of ink used with the ederMCS printing system—one of the references at issue here. The printed samples that Defendants hired Mr. Radencic to test are found in the K+E Book, published by the ink manufacturer K+E Druckfarben. In his original declaration, dated November 18, 2010, Mr. Radencic stated that on October 19, 2009, the PIA conducted a spectroscopic analysis of the ederMCS inks to determine their spectral reflectance characteristics. The results of the October 2009 testing were attached as an exhibit to his declaration.

Mr. Radencic's supplemental declaration states that in January of 2011, at his direction, the PIA retested the same color samples from the K+E Book to determine their spectral reflectance characteristics. According to his supplemental declaration, the PIA used the same testing process and methodology in the January 2011 test as it did in the October 2009 test. The results of the test were attached to his supplemental declaration as an exhibit. Mr. Radencic further states that on April 11, 2011, he contacted Flint Group Germany GmbH, a company that acquired the K+E Novavit product line, and asked them to create new print samples of six K+E

inks. These six inks are identified in the K+E Book as the inks used for the ederMCS printing system. Mr. Radencic states that after receiving the newly created print samples (“the Flint samples”), the PIA tested these new samples using a spectrophotometer to determine the reflectance characteristics of each ink. The results of the Flint samples test are attached as an exhibit to the supplemental declaration.

Finally, Mr. Radencic’s supplemental declaration states that counsel for Defendants also requested that the PIA conduct a spectroscopic analysis of printed samples of certain Pantone printing inks. Mr. Radencic states that he ordered two swatch books from Pantone, Inc. (“the Pantone Books”). The Pantone Books contained color samples of the Pantone inks identified in the ederMCS reference, and, more relevant here, the Viggiano reference. According to Mr. Radencic, on April 11, 2011, after he had received the Pantone Books, the PIA tested printed color samples in the Pantone Books using the spectrophotometer to determine their spectral reflectance characteristics. The results of the Pantone tests are attached as exhibits to his supplemental declaration.

Mr. Radencic thus conducted three spectroscopic tests relating to the ederMCS printing system and the Viggiano reference after December 2, 2010: (1) a retest of the K+E ink samples, (2) a test of the Flint samples, and (3) a test of samples from the Pantone Books. While the retest data is not new, the data explaining the PIA’s tests of the Flint samples and samples from the Pantone Books is. At the time of Mr. Radencic’s original declaration, he had not yet asked for or received the Flint samples or the two Pantone swatch books. There was no indication in his original declaration that he planned to conduct more testing of K+E inks and there was no discussion of his plan to test ink samples from the Pantone Books. As such, the Court

determines that the data describing the PIA's tests of samples from Flint and the Pantone Books are new expert opinions.

Nevertheless, the new expert opinions found in Mr. Radencic's supplemental declaration do not prejudice Plaintiff. First, while Mr. Radencic's testing of the Flint and Pantone Book ink samples took place after Defendants filed Mr. Radencic's original declaration, involved new print samples, and produced new data, the tests could not have taken Plaintiff by surprise. The tests are consistent with the arguments and evidence presented by Defendants in their summary judgment brief. Plaintiff knew that Defendants' strategy was to conduct a spectroscopic analysis of each of the colors disclosed in each reference and then determine whether the disclosed colors fell within the scope of the colors claimed in the '018 patent. Both of Mr. Radencic's new tests were done for the same purpose, and, while they created new data, that data simply corroborated the results of the tests that he or Dr. Viggiano had already done. Plaintiff was not "sandbagged" by Mr. Radencic's new testing.

Furthermore, because Defendants filed Mr. Radencic's supplemental declaration while the parties were engaged in Rule 56(d) discovery and before Plaintiff had deposed Mr. Radencic or filed its response to Defendants' summary judgment motion, Plaintiff had ample time to cure any potential prejudice. Plaintiff had the opportunity to issue supplemental discovery requests relating to the new testing or to ask Mr. Radencic questions about the new tests at his deposition. If Plaintiff felt constrained by the scope of the Rule 56(d) discovery, it could have asked the Court to expand discovery in light of the new evidence. It did not do so. At the very least, Plaintiff could have addressed the additional testing in its response brief.

Finally, the Court is not convinced that Defendants acted in bad faith. From the record, it appears that Mr. Radencic conducted the retest of the K+E ink samples and the new test of the

Flint samples on his own without direction from Defendants. And while Defendants did ask Mr. Radencic to perform the tests on the ink samples from the Pantone Books after they had filed his original declaration, Defendants argue that the new tests are essentially an early reply to an argument as to degradation of the ink samples that they believed, based on the parties' Rule 56(d) discovery, Plaintiff was planning to make in its response brief. Although once a party has filed its motion for summary judgment it does not have free reign to submit supplemental documents in support of its motion—even while engaged in Rule 56(d) discovery—here, Defendants' disclosure of the new testing before Mr. Radencic's deposition and before the date for filing the response brief is enough to satisfy the Court that Defendants were not acting in bad faith. Accordingly, because the disclosure of Mr. Radencic's supplemental declaration was harmless to Plaintiff, the Court denies Plaintiff's motion to strike this declaration and the evidence submitted with it. See, e.g., *Turley v. ISG Lackawanna, Inc.*, --- F. Supp. 2d ---, No. 06-CV-794S, 2011 WL 1104270, at *4-7 (W.D.N.Y. Mar. 23, 2011) (denying motion to strike declarations submitted with the defendant's summary judgment reply brief where the declarations did not prejudice the plaintiff); *Rx.com Inc. v. Hartford Fire Ins. Co.*, 426 F. Supp. 2d 546, 555 (S.D. Tex. 2006) (denying the defendant's motion to strike evidence the plaintiff submitted with its summary judgment reply brief where the additional evidence "remedied some of the evidentiary problems [the defendant] raised and helped clarify the record evidence" and where the defendant suffered no prejudice).

Dr. Hunt's "Supplemental" Declaration

Defendants hired Dr. Hunt to provide his expert opinion as a person of skill in the art. In his original declaration, dated December 1, 2010, Dr. Hunt relied on Mr. Radencic's October 2009 testing to help him reach the conclusion that the ederMCS references disclosed a printing system that falls within the scope of the remaining asserted claims of the '018 patent and that the disclosure would anticipate or render obvious each of the asserted claims.

Dr. Hunt further opined that the Berns and Viggiano references and the Kueppers patent disclosed a printing system within the scope of the remaining asserted claims, and that the disclosure would anticipate or render obvious each of the remaining asserted claims of the '018 patent. In reaching his conclusion as to the Viggiano reference, Dr. Hunt relied on Dr. Viggiano's original spectroscopic reflectance data for the Pantone Basic Colors and Pantone Basic Process Colors, done in 1998.

In his supplemental declaration, Dr. Hunt stated that the additional tests conducted by Mr. Radencic "confirm and verify [his] earlier conclusions that the Viggiano reference and the ederMCS references and printing system each anticipate the asserted claims of the '018 patent." [225, at 2.] Thus, while the conclusions in his supplemental declaration are the same as the ones in his original declaration, they are based in part on Mr. Radencic's new testing and are, accordingly, new opinions.

For the same reasons discussed above, however, the Court concludes that Plaintiff was not prejudiced by the new opinions in Dr. Hunt's supplemental declaration. Dr. Hunt's analysis of Mr. Radencic's new testing was identical to the analysis that he undertook in his original declaration. Based on this analysis, Dr. Hunt reached the very same conclusions as to anticipation and obviousness that he reached in his original declaration. Plaintiff's lack of

surprise and the abundant time and opportunity it had to cure any potential prejudice leads the Court to conclude that the addition of Dr. Hunt's supplemental declaration is harmless. For those reasons, the Court denies Plaintiff's motion to strike Dr. Hunt's supplemental declaration and the evidence supporting it.⁵

2. Plaintiff's Motion to Strike the Newly-Disclosed Dr. Viggiano Documents

In its reply brief filed in support of its motion to strike, Plaintiff also asks the Court to strike the newly-produced Dr. Viggiano documents and the deposition testimony relating to those documents.⁶ Plaintiff contends that it did not have a reasonable opportunity to review the documents, analyze them, or prepare questions before Dr. Viggiano's deposition. Defendants acknowledge that the production gave Plaintiff little time to prepare for the deposition. They argue, however, that they turned over the documents as soon as they learned about the new tests and that Plaintiff was not prejudiced by the late disclosure.

⁵ Even if the Court had analyzed the disputed declarations under Rule 6(b)(1)(B), as Plaintiff urges, it would have reached the same conclusion. The "excusable neglect" standard found in Rule 6(b)(1)(B) is an equitable determination that must take into account all relevant circumstances surrounding the party's omission. See *Pioneer Inv. Servs. Co. v. Brunswick Assocs. Ltd. P'ship*, 507 U.S. 380, 395 (1993). It also is a "somewhat 'elastic concept' and is not limited strictly to omissions caused by circumstances beyond the control of the movant." *Id.* at 392. Because Plaintiff suffered no prejudice, there was no delay in the case as a result of the supplemental filings, and Defendants have not acted in bad faith, the Court also would allow the "late" filings under Rule 6(b)(1)(B).

⁶ The Court grants Defendants' motion for leave to file a sur-reply to Plaintiff's motion to strike. Rather than filing an additional motion to strike the documents related to Dr. Viggiano, Plaintiff chose to make its arguments as to this evidence for the first time in its reply brief. The Court acknowledges that the alleged discovery violation did not occur until after Plaintiff filed its opening brief supporting its motion to strike. Even so, Defendants must be given a chance to respond to Plaintiff's argument and they have done so in their sur-reply. See, e.g., *General Ins. Co. of Am. v. Clark Mali Corp.*, No. 08 C 2787, 2010 WL 807433, at *4 (N.D. Ill. Mar. 10, 2010) ("To assure that the opponent of the motion is not deprived of a meaningful opportunity to respond to the arguments in support of the motion—which is the inevitable result of withholding arguments until the reply brief—a court must either invoke the waiver doctrine or allow the filing of a sur-reply."). Accordingly, the Court grants Defendants' motion. Because Plaintiff adequately replied to Defendants' argument as to the new Dr. Viggiano evidence in its response to Defendants' motion for leave to file a sur-reply, no further briefing on this issue is necessary.

Using the legal standard set forth above, the Court also concludes that Defendants' disclosure of the new Dr. Viggiano documents did not prejudice Plaintiff. The total production was only twenty-six pages describing testing that was similar to and corroborated the 1998 testing that Dr. Viggiano had described in his declaration in support of Defendants' summary judgment motion. Thus, while Plaintiff did not have an abundance of time to review the documents, it had seen similar testing before and the three-or-more hours that it did have to prepare was likely enough to develop at least an initial impression of Dr. Viggiano's new data. Further, because the parties were still engaged in Rule 56(d) discovery, Plaintiff had the opportunity to ask to re-depose Dr. Viggiano—something Defendants state they would not have opposed in light of the late disclosure—or issue new discovery requests relating to the newly disclosed documents. In other words, Plaintiff had the ability to cure any potential prejudice and it failed to do so.

Nor was Defendants' late production of these five documents in bad faith. Plaintiff does not contest the fact that Defendants produced the documents on the day that they learned about Dr. Viggiano's supplemental testing. Defendants were as surprised as Plaintiff to learn that Dr. Viggiano had undertaken these tests. Had Defendants waited until the deposition itself to turn over the documents and then elicited testimony from Dr. Viggiano about the documents without giving Plaintiff any time to review them, the Court might reach a different conclusion. However, because Defendants did, in good faith, produce the five documents before the deposition, the Court concludes that Plaintiff was not prejudiced here. For those reasons, the Court denies Plaintiff's motion to strike as to the Dr. Viggiano documents and related deposition testimony.

In the foregoing analysis, the Court has addressed pursuant to Rules 26 and 37 whether Plaintiff was prejudiced procedurally by the contested evidence. But the Court hastens to add

that the inclusion of this evidence in the summary judgment record did not lead to any substantive prejudice either. Although the Court cites to some of this evidence in its discussion of the Viggiano reference (see below), the Court’s disposition of Defendants’ summary judgment motions would have been the same even if the Court had disregarded all of the contested “new” evidence. In the end, that evidence merely supplements the clear and convincing evidence supporting invalidity that Defendants already had marshaled prior to the additional disclosures since December 2010.

In sum, because Plaintiff has not been prejudiced—either procedurally or substantively—by the disclosure of Defendants’ experts’ additional declarations and attached evidence or by the disclosure of the Dr. Viggiano documents, the Court denies Plaintiff’s motion to strike in its entirety. The Court also grants Defendants’ motion for leave to file a sur-reply (see note 6, *supra*) and grants Defendants’ motion for leave to amend their L.R. 56.1 statement of material facts, which does not add new facts, but simply supplements Defendants’ previous statement with citations to the declarations and evidence discussed above.

B. Motions for Summary Judgment of Invalidity

Having resolved the parties’ preliminary disputes, the Court turns to Defendants’ two motions for summary judgment. Defendants argue that the remaining asserted claims of the ’018 patent are anticipated and rendered obvious by the Wilson Book, Berns, Viggiano, four ederMCS references, and Kueppers. Because claims 11, 13, 27, and 29 are anticipated by the Wilcox Book and the Viggiano reference, the Court grants Defendants’ motions.

1. Legal Standards

Summary judgment is proper if “the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56

(a). In determining whether there is a genuine issue of fact, the Court “must construe the facts and draw all reasonable inferences in the light most favorable to the nonmoving party.” *Foley v. City of Lafayette, Ind.*, 359 F.3d 925, 928 (7th Cir. 2004). To avoid summary judgment, the opposing party must go beyond the pleadings and “set forth specific facts showing that there is a genuine issue for trial.” *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 250 (1986) (internal quotation marks and citation omitted).

A genuine issue of material fact exists if “the evidence is such that a reasonable jury could return a verdict for the nonmoving party.” *Id.* at 248. The party seeking summary judgment has the burden of establishing the lack of any genuine issue of material fact. See *Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986). Summary judgment is proper against “a party who fails to make a showing sufficient to establish the existence of an element essential to that party’s case, and on which that party will bear the burden of proof at trial.” *Id.* at 322. The non-moving party “must do more than simply show that there is some metaphysical doubt as to the material facts.” *Matsushita Elec. Indus. Co., Ltd. v. Zenith Radio Corp.*, 475 U.S. 574, 586 (1986). “The mere existence of a scintilla of evidence in support of the [non-movant’s] position will be insufficient; there must be evidence on which the jury could reasonably find for the [non-movant].” *Anderson*, 477 U.S. at 252. “Summary judgment is as appropriate in a patent case as it is in any other case.” *C.R. Bard, Inc. v. Advanced Cardiovascular Sys., Inc.*, 911 F.2d 670, 672 (Fed. Cir. 1990).

Patent validity is a question of law, not fact, but “the same factual questions underlying the [U.S. Patent and Trademark Office]’s original examination of a patent application will also bear on an invalidity defense in an infringement action.” *Microsoft Corp. v. i4i Ltd. P’ship*, --- U.S. ---, 131 S. Ct. 2238, 2242–43 (U.S. June 9, 2011). A patent is presumed to be valid

according to 35 U.S.C. § 282, and the party alleging invalidity must “prove invalidity by clear and convincing evidence.” *Creative Compounds, LLC v. Starmark Labs.*, --- F.3d ---, Nos. 2010–1445, 2011 WL 2519513, at *4 (Fed. Cir. June 24, 2011) (quotation omitted); see also *Microsoft Corp.*, 131 S. Ct. at 2252 (upholding the Federal Circuit’s “clear and convincing evidence” standard for invalidity cases). This burden is “especially difficult” when the alleged infringer relies on prior art that was before the patent examiner during prosecution. *Al-Site Corp. v. VSI Int’l Inc.*, 174 F.3d 1308, 1323 (Fed. Cir. 1999).

2. Analysis

a. Anticipation

Defendants first argue that the ’018 patent is invalid as a matter of law because the Wilcox Book and the Berns, Viggiano, ederMCS, and Kueppers references each independently anticipate claims 11, 13, 27, and 29 of the ’018 patent. A patent claim is invalid by anticipation if “the invention was patented or described in a printed publication in this or a foreign country * * * more than one year prior to the date of the application for patent in the United States * * *.” 35 U.S.C. § 102(b). Anticipation requires the presence of “each and every claim limitation in a single prior art reference, either explicitly or inherently.” *In re Omeprazole Patent Litig.*, 483 F.3d 1364, 1371 (Fed. Cir. 2007). To be anticipating, the reference must also “enable one of ordinary skill in the art to make the invention without undue experimentation. *In re Gleave*, 560 F.3d 1331, 1334 (Fed. Cir. 2009) (quotations omitted). “As long as the reference discloses all of the claim limitations and enables the ‘subject matter that falls within the scope of the claims at issue,’ the reference anticipates—no ‘actual creation or reduction to practice’ is required.” *Id.* (quoting *Schering Corp. v. Geneva Pharms., Inc.*, 339 F.3d 1373, 1380–81 (Fed. Cir. 2003)). Anticipation is a question of fact. *Smithkline Beecham Corp. v. Apotex Corp.*, 403 F.3d 1331,

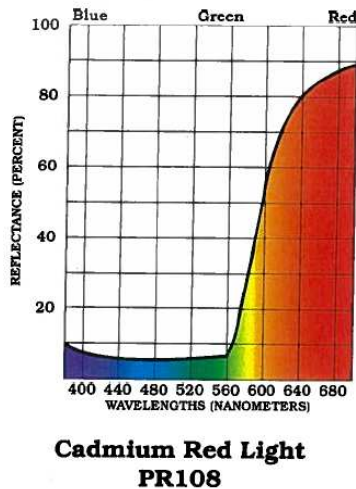
1343 (2005). Nevertheless, “without genuine factual disputes underlying the anticipation inquiry, the issue is ripe for judgment as a matter of law.” *Id.*

i. The Wilcox Book

Defendants first contend that the '018 patent is invalid by anticipation in light of a book written by Michael Arthur John Wilcox (“Dr. Wilcox”), inventor of the '018 patent, entitled “Blue and Yellow Don’t Make Green” (“the Wilcox Book”). Both the first and second editions of the Wilcox Book are part of the prior art because they were published in the United States or a foreign country more than one year before the '018 patent’s 2003 priority date. See 35 U.S.C. § 102(b); (Pl. Wilcox Resp. ¶¶ 7–8.).

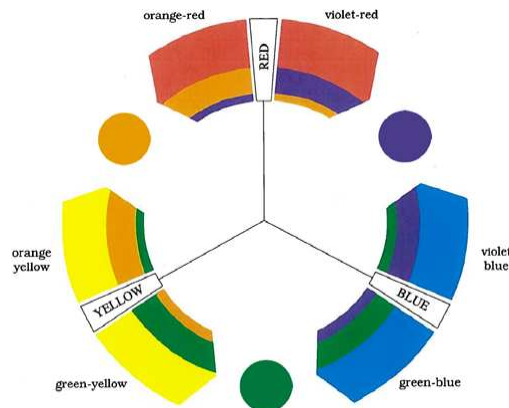
The Wilcox Book discussed “colour mixing,” specifically identifying “six principle colours central to its approach. Two reds: orange-red and a violet red. Two yellows: orange-yellow and green-yellow. And two blues: green-blue and violet blue.” (Pl. Wilcox Resp. ¶ 9.) Like the '018 patent, the Wilcox Book teaches that the six-color combination can be used to produce a wider gamut of colors than can be achieved by using the traditional blue, red, and yellow combination. The Wilcox Book disclosed the same six spectroscopic curves relating to the “six principle colours” as are disclosed in the '018 patent, and includes figures and disclosures for each of the six colors. (Pl. Wilcox Resp. ¶¶ 13–19.) For example, the Wilcox Book discussed “Cadmium Red,” identified in the book as “orange-red,” in the following way: “An *orange-red* such as Cadmium Red, reflects red very well, quite a large amount of orange and a smaller percentage of violet.” (Pl. Wilcox Resp. ¶ 14.) Under the spectroscopic curve identified as “Cadmium Red Light PR 108,” the Wilcox Book states, “[w]ith a high reflectance percentage * * * a bright color is suggested. As the wavelengths are mainly in the red/orange

region the graph indicates a bright orange-red.” (Pl. Wilcox Resp. ¶ 14.) The spectroscopic curve representing “Cadmium Red Light PR 108” appears below:



The Wilcox Book has a similar disclosure for each of the five other “principle colours.” (Pl. Wilcox Resp. ¶ 15-19.)

Finally, the Wilcox Book included a “Colour Bias Wheel,” which identifies the “six principle colours” set forth in the book. (Pl. Wilcox Resp. ¶ 29.) The “Colour Bias Wheel” found in the Wilcox Book appears below:



Recognizing the similarity between the Wilcox Book and the '018 patent, Plaintiff does not dispute the fact that the Wilcox Book disclosed a color printing system that uses at least four colored materials (an ink, dye, toner, or pigment), each of a different color, or that the book

disclosed using a combination of colors other than cyan, magenta, a yellow and black.⁷ Thus, the only question is whether the book disclosed using at least three of the six colors claimed in the '018 patent.

In support of their argument that the Wilcox Book disclosed the six claimed colors, Defendants offer the testimony of Dr. Hunt. In his declaration, Dr. Hunt points to the following: (1) both the '018 patent and the Wilcox Book disclose the same six spectroscopic curves and identify the curves as representing the same six claimed or principle colors; (2) both the patent and the book disclose the same six pigment numbers as examples of the six claimed or principle colors; (3) both the patent and the book disclose the same “Colour Bias Wheel” that illustrates the six claimed or principle colors; and (4) like the '018 patent, the six spectroscopic curves and six bar graphs in the Wilcox Book, which correspond to the six principle colors disclosed in the book, teach that relative intensity for each component color is measured by determining the area under the curve.

Defendants also rely on Dr. Hunt’s analysis of three of the six principle colors found in the Wilcox Book. Dr. Hunt measured the area under the spectroscopic reflectance curves in the Wilcox Book within each of the wavelength ranges in the Court’s construction. For every 10 nm range on the horizontal axis of the graph, Dr. Hunt measured the average height of the relevant curve and multiplied this average height by the width to come up with the area for that 10 nm “slice” of the graph. Then, for the entire wavelength range of a given component color, for example, 400–440 nm for “violet,” Dr. Hunt calculated the total area for that component color by adding up the appropriate “slices” in that wavelength range. Finally, Dr. Hunt ordered the component colors from greatest to smallest according to the areas under their spectroscopic

⁷ The Court has compared the undisputed limitations in claims 11, 13, 27, and 29 of the '018 patent to the disclosures in the Wilcox Book, and agrees with the parties that the book disclosed each of the limitations within those claims.

curves. Based on his calculations, Dr. Hunt concluded that the curves for Pigment Red 108, Pigment Blue 29, and Pigment Blue 15 literally satisfy the '018 patent's definitions of "orange-red," "violet-blue," and "green-blue," respectively.

Plaintiff concedes that the Wilcox Book expressly disclosed one of the three limitations relating to the six claimed colors, specifically, the highest reflectance limitation. The parties dispute, however, whether the Wilcox Book disclosed the area limitation and the wavelength limitation. While there is no doubt that the spectroscopic curves, pigments, and color wheels in the '018 patent and the Wilcox Book are identical, the Court agrees with Plaintiff that the book's inclusion of the same color names and color pigments as the '018 patent is not enough to be an express disclosure of the wavelength and area limitations. The wavelength table found in the '018 patent does not appear in either the first or second editions of the Wilcox Book. (Def. Wilcox Resp. ¶¶ 28, 30.) Further, as Defendants' expert Dr. Hunt has admitted previously in this case, there are no generally-accepted wavelength ranges for colors, and color names themselves are imprecise. (See, *e.g.*, Pl. Wilcox SOF, Ex. 1, at 81–83; [51 at ¶¶ 39–43; 23–27].) Thus, the book's disclosure of color names and pigments alone is not enough for the Court to determine, as a matter of law, that the Wilcox Book expressly disclosed the wavelength limitation.

Nor is the Wilcox Book's inclusion of the spectroscopic curves and bar graphs enough, at this stage, to allow the Court to conclude that the area method was expressly taught in the Wilcox Book. The parties dispute whether the bar graphs and spectroscopic curves associated with each of the six preferred colors in the Wilcox Book qualify as an express disclosure of the area method (compare Pl. Wilcox SOF, Ex. 3 ¶ 14–16 with Hunt Decl. ¶ 15), and, for purposes of summary judgment, the Court must take the facts in the light most favorable to Plaintiff. Accordingly, the Court cannot conclude as a matter of law that the Wilcox Book's inclusion of

the spectroscopic shaded curves and bar graphs, both of which correspond to each of the six principle colors, are an express disclosure of the area limitation.

Nevertheless, Dr. Hunt's conclusion that three of the colors identified in the spectroscopic curves found in the Wilcox Book fall within the scope of the '018 patent's definitions of "orange-red," "violet-blue," and "green-blue" convinces the Court that the Wilcox Book inherently disclosed the two claim limitations at issue here. Under the doctrine of inherency, a prior art reference anticipates if it "necessarily functions in accordance with, or includes, the claimed limitations." *Atlas Power Co. v. IRECO Inc.*, 190 F.3d 1342, 1347 (Fed. Cir. 1999); see also *King Pharms., Inc. v. Eon Labs., Inc.*, 616 F.3d 1267, 1274 (Fed. Cir. 2010). A product that "would literally infringe if later in time anticipates if earlier." *Upsher-Smith Labs., Inc. v. PamLab, L.L.C.*, 412 F.3d 1319, 1322 (Fed. Cir. 2005) (quoting *Bristol-Myers Squibb Co. v. Ben Venue Labs., Inc.*, 246 F.3d 1368, 1378 (Fed. Cir. 2001)). The critical question for inherent disclosure here is whether at least three of the six colors identified by the Wilcox Book necessarily feature the wavelength and area limitations. See *Toro Co. v. Deere & Co.*, 560 F.3d 1331, 1320 (Fed. Cir. 2004); *Transclean Corp. v. Bridgewood Servs., Inc.*, 290 F.3d 1364, 1373 (Fed. Cir. 2002) (stating that "anticipation by inherent disclosure is appropriate only when the reference discloses prior art that must *necessarily* include the unstated limitation).

The Court concludes that they do. Dr. Hunt's analysis, the methodology of which Plaintiff does not contest, makes clear that three of the colors the Wilcox Book disclosed necessarily include the disputed claim limitations. See *Cont'l Can Co. USA v. Monsanto Co.*, 948 F.2d 1264, 1268 (Fed. Cir. 1991) ("To serve as an anticipation when the reference is silent about the asserted inherent characteristic, such gap in the reference may be filled with recourse to extrinsic evidence."). According to Dr. Hunt's data, the spectroscopic curve identified in the

Wilcox Book for Pigment Red 108 is an “orange-red.” In other words, the area under the spectroscopic reflectance curve is greatest for the component color red (610–700 nm), and second highest for orange (590–620 nm). Pigment Blue 29 is a “violet-blue” because the area under the spectroscopic reflectance curve is greatest for the component color blue (420–490 nm), and second highest for violet (400–440 nm). Finally, Pigment Blue 15 is a “green-blue” because the area under the spectroscopic reflectance curve is greatest for the component color blue (420–490 nm), and second highest for green (490–550 nm). The Court concludes, based on Dr. Hunt’s analysis, that the wavelength and area limitations are necessarily present in three of the colors disclosed in the Wilcox Book.

Plaintiff argues that Dr. Hunt was only able to reach this conclusion with the benefit of the Court’s claim construction. Specifically, Plaintiff claims that before the Court construed the claims, and having no knowledge of the wavelength and area limitations, a person skilled in the art would not have been able to determine whether the component colors that he chose were within the correct wavelength range, nor would he think to measure the area under the spectroscopic curve to determine the intensity of a component color. But this ignores the Federal Circuit’s teaching that “[i]nherency is not necessarily coterminous with the knowledge of those of ordinary skill in the art. Artisans of ordinary skill may not recognize the inherent characteristics or functioning of the prior art.” *In re Cruciferous Sprout Litig.*, 301 F.3d 1343, 1349 (Fed. Cir. 2002) (quoting *MEHL/Biophile Int’l Corp. v. Milgraum*, 192 F.3d 1362, 1365 (Fed. Cir. 1999)). While the ’018 patent may describe or define the six claimed colors in a different way than the Wilcox Book described them, that does not mean that the Wilcox Book was not teaching the use of the very same colors. “[T]he discovery of a previously unappreciated property of a prior art composition, or of a scientific explanation for the prior art’s functioning, does not render the old

composition patentably new to the discoverer.” *Atlas Power Co.*, 190 F.3d at 1347; see also, e.g., *In re Cruciferous Sprout Litig.*, 301 F.3d 1343, 1350 (Fed. Cir. 2002) (finding the claims of a patent inherently anticipated where the inventor “ha[d] done nothing more than recognizing properties inherent in certain prior art * * *”); *In re Woodruff*, 919 F.2d 1575, 1578 (Fed. Cir. 1990) (“[M]erely discovering and claiming a new benefit of an old process cannot render the process again patentable.); *Titanium Metals Corp. of Am. v. Banner*, 778 F.2d 775, 782 (Fed. Cir. 1985) (holding that the claims of a patent were inherently anticipated where the inventor merely discovered new properties of an old alloy). Because the colors disclosed in the three spectroscopic curves relating to Pigment Red 108, Pigment Blue 29, and Pigment Blue 15 necessarily encompass the wavelength and area limitations, the Wilcox Book inherently disclosed these limitations.

However, this does not end the Court’s anticipation inquiry. For inherent anticipation, the Wilcox Book also must have enabled one of skill in the art to use the disclosed colors in a printing system. Again, for a reference to be enabled, “contemporaneous recognition of the[] necessary features or results” is not required. *Toro Co.*, 355 F.3d at 1321. In other words, whether those skilled in the field knew that the colors disclosed in the Wilcox Book could be described and measured as they are in the ’018 patent is immaterial; what matters is whether an ordinarily skilled person would use the colors disclosed to make a printing system. See *In re Gleave*, 560 F.3d at 1336 (finding that the prior art reference was enabling and stating that “the fact that [the reference] provides ‘no understanding of which of the targets would be useful’ is of no import, because [the patent applicant] admits that it is well within the skill of an ordinary person in the art to make any oligodeoxynucleotide sequence”); *Schering Corp.*, 339 F.3d at

1381 (“An anticipatory reference need only enable subject matter that falls within the scope of the claims at issue, nothing more.”).

Defendants concede that the Wilcox Book is primarily directed to artists and the imprecise mixing of paints, but they contend that the Wilcox Book also expressly teaches that the six-color combination can be used for printing inks and other applications. The Court agrees. The Wilcox Book was intended to have a wide audience, and was not limited to painting. For example, the first paragraph of the first edition of the Wilcox Book states,

There is an obvious need for artists, designers, print-makers and craftworkers to be able to mix any desired color quickly, accurately and without waste * * * * By following the principles set out in this exciting book, artists and other color users will now be able to mix precisely the colors they want—every time.

(Def. Wilcox SOF, Ex. B at front inside panel.) Likewise, the introduction to the second edition of the book directs Dr. Wilcox’s six-color theory toward the printing industry, stating,

There is every reason for anyone using color to understand and take control of this very forceful means of communication.

Artists, designers, printers, craft workers and other users of color would invariably agree that the selection and use of color is of paramount importance in their work.

(Def. Wilcox SOF, Ex. C at 3.)

Both editions of the book also specifically state that the preferred colors are applicable to “silk screen inks,” a type of screen printing. (See Pl. Wilcox Resp. ¶¶ 38–46, 50.) Screen printing is one embodiment of the ’018 patent. (See Pl. Wilcox Resp. ¶ 47–49.) The Wilcox Book further teaches that when the six-color system is used with printing inks, the inks will need to be sufficiently transparent for the six colors to give the appearance of other colors. The first edition of the book states that “most screen inks are opaque when they are applied heavily. Either by thinning or through adding a special base, the inks can be made transparent.” (Def.

Wilcox SOF, Ex. B at 107.) According to Defendants’ expert Dr. Hunt, “[t]he practice of ensuring that inks are of the right transparency * * * is particularly important in the printing industry, because different layers of color are being printed on top of other layers.” (Hunt Decl. ¶ 23.) Because the Wilcox Book was directed, at least in part, to those in the printing industry, and because the book specifically teaches how to use the six-color combination in the screen printing industry, the Court concludes that the book enables at least one of the embodiments of the ’018 patent. See *Iovate Health Servs., Inc. v. Bio-Engineered Supplements & Nutrition, Inc.*, 586 F.3d 1376, 1380 (Fed. Cir. 2009) (emphasis added) (stating that to be anticipatory, a prior art reference must “enable one of skill in the art to practice *an embodiment* of the claimed invention”). In other words, in light of the Wilcox Book, a person of ordinary skill in the art would know how to create a printing system using at least three of the six claimed colors. See *In re Gleave*, 560 F.3d at 1335. Accordingly, the Court concludes that the Wilcox Book inherently anticipates the remaining asserted claims of the ’018 patent.⁸

ii. The Viggiano Reference

The Court also concludes that the Viggiano reference inherently anticipates the remaining asserted claims of the ’018 patent. The Viggiano reference is a research paper co-authored by Dr. Viggiano, entitled “Colorant Selection for Six-Color Lithographic Printing.” (Pl. Berns Resp. ¶ 13.) The reference was published in 1998 in connection with The Sixth Color Imaging Conference: Color Science, Systems, and Applications. (Pl. Berns Resp. ¶ 13.) Because it was published in the United States or a foreign country more than one year before the ’018 patent’s priority date, the Viggiano reference is part of the prior art. See 35 U.S.C. § 102(b).

⁸ Because the Wilcox Book independently renders the remaining asserted claims invalid, the Court could end its analysis here and dismiss the Defendants’ second motion for summary judgment as moot. Nevertheless, in the interest of completeness, the Court will address below another of Defendants’ arguments that provides an alternative basis for the Court’s disposition.

The Viggiano reference reflects the results of a research study conducted by Dr. Viggiano that identified optimal ink sets for six-color lithographic printing. According to Dr. Viggiano, “a primary goal of [the] study was to identify combinations of six inks that, used together in a printing system, would have certain performance advantages, such as producing the greatest color gamut or range of achievable colors.” (Viggiano Decl. ¶ 6.) The Viggiano reference states:

Recent interest in so-called hi-fidelity printing, coupled with overcapacity on six-color printing presses, has resulted in a number of options for increasing the printing gamut. Several of these options are based on the use of colorants in addition to the traditional Cyan, Magenta, Yellow, and Black. Printers, print-buyers, and creative personnel are faced with the question, “Which set of colorants is best?”

(Pl. Berns Resp. ¶ 14.) In his study, Dr. Viggiano used Pantone inks, specifically combining four Pantone Process inks with two inks selected from the 13 Pantone Basic Colors:

In the first example, seventy-eight six color combinations are chosen by starting with a CMYK ink-set (Pantone Process Yellow, Pantone Process Magenta, Pantone Process Cyan, and Pantone Process Black), and adding two colors from the list of 13 Pantone Basic Colors (Pantone Yellow, Pantone Yellow 012, Pantone Orange 21, Pantone Warm Red, Pantone Red 032, Pantone Rubine Red, Pantone Rhodamine Red, Pantone Purple, Pantone Violet, Pantone 072 Blue, Pantone Reflect Blue, Pantone Process Blue, and Pantone Green) to make six-color sets.

(Pl. Berns Resp. ¶ 15.) Dr. Viggiano and his co-author identified several specific six-color combinations that yielded the best performance measured against several criteria. One set of six-color combinations identified in the study was the combination of Pantone Process Yellow, Pantone Process Magenta, Pantone Process Cyan, Pantone Process Black with Pantone Blue 072, and Pantone Yellow 012. The Viggiano reference states that, “[t]he addition of Blue 072 and Yellow 012 to the four process inks increased the proportion of in-gamut pixels from 71.1% to

80.9%.” (Pl. Berns Resp. ¶ 16.) Unlike the Wilcox Book, the Viggiano reference does not expressly disclose any spectroscopic curves or any reflectance data. (Def. Berns Resp. ¶ 20.)

Plaintiff again concedes that the Viggiano reference expressly disclosed a color printing system that uses at least four colored materials (an ink, dye, or toner, or pigment), each of a different color, and that the reference disclosed using a combination of colors other than cyan, magenta, a yellow and black.⁹ This leaves the question of whether the reference disclosed using at least three of the '018 patent's six claimed colors. This time, Defendants do not dispute the fact that the Viggiano reference did not expressly disclose any of the three limitations at issue here. (Def. Berns Resp. ¶¶ 28, 32, 36.) Thus, the issue before the Court as to disclosure is whether the Viggiano reference inherently disclosed the wavelength limitation, the area limitation, and the highest reflectance limitation.

For the same reasons set forth above, the Court concludes that the Viggiano reference inherently disclosed the limitations at issue here. In support of their motion, Defendants submitted a declaration from Dr. Hunt, who concluded, based on a spectroscopic analysis identical to the one outlined above, that the Viggiano reference disclosed the wavelength, area, and highest reflectance limitations. Because there are no spectroscopic curves present in the Viggiano reference, Dr. Hunt relied on spectroscopic data from Dr. Viggiano and Mr. Radencic.¹⁰ When conducting his research in 1998, Dr. Viggiano tested the Pantone inks disclosed in his study using the publically-available Pantone Formula Guide. Dr. Viggiano determined the reflectance spectra of the disclosed colors and kept the data, although he did not

⁹ The Court has compared the undisputed limitations in claims 11, 13, 27, and 29 of the '018 patent to the disclosures in the Viggiano reference, and agrees with the parties that the reference disclosed each of the limitations within those claims.

¹⁰ Even if there were no spectroscopic curves in the Wilcox Book, Dr. Hunt could have done this same analysis for the Pantone inks disclosed in the book.

plot any spectroscopic curves for the inks used in his study at the time that the Viggiano reference was published. (Def. Berns Resp. ¶ 20.) On April 11, 2011, Mr. Radencic tested the same Pantone inks that were disclosed in the Viggiano reference to determine their spectral reflectance characteristics.

As he did with the curves disclosed in the Wilcox Book, Dr. Hunt measured the area under the spectroscopic reflectance curves for each of the specified Pantone and Pantone Process inks within each of the relevant wavelength ranges, and ordered the component colors. Based on his calculations, Dr. Hunt reached the following conclusions:

- “Pantone Process Cyan” is a “green-blue.” This means that the area under the spectroscopic reflectance curve is greatest for the component color blue (420–490 nm), and second highest for green (490–550 nm).
- “Pantone Process Magenta,” is an “orange-red,” which means that the area under the spectroscopic reflectance curve is greatest for the component color red (610–700 nm), and second highest for orange (590–620 nm).
- “Pantone Blue 072,” is a “violet-blue.” That is, the area under the spectroscopic reflectance curve is greatest for the component color blue (420–490 nm), and second highest for violet (400–440 nm).¹¹

Dr. Hunt reached the same conclusions when he analyzed Mr. Radencic’s April 2011 testing of the same Pantone inks. Thus, when the Court’s claim construction is applied to the colors disclosed in the Viggiano reference, at least three of the colors disclosed fall within the scope of three of the six claimed colors in the ’018 patent.

¹¹ Dr. Hunt also concluded that “Pantone Reflex Blue” is a “violet-blue.”

As discussed above, that is enough for the Court to reach the conclusion that at least three of the six claimed colors are inherently disclosed in the Viggiano reference. Pantone is an industry color standard, each Pantone color has a unique spectral reflectance curve, and Plaintiff has not challenged the accuracy of the curves generated by Dr. Viggiano or Mr. Radencic's testing. If the prior art discloses a range that falls within the range disclosed in the challenged patent claim, then the prior art disclosure anticipates the patent claim. *Atlas Powder Co.*, 190 F.3d at 1346. Plaintiff's only argument to the contrary is that Dr. Hunt has testified that there is no generally-accepted wavelength range for a particular color, no generally-accepted definition of the term "quantity or intensity" and that, before the '018 patent, one skilled in the art would not have measured the area under a spectral curve to determine the order of reflectance of a component color. The Court cannot accept this argument because "[i]nherency is not necessarily coterminous with the knowledge of those of ordinary skill in the art." *In re Cruciferous Sprout Litig.*, 301 F.3d at 1349 (quoting *MEHL/Biophile Int'l Corp.*, 192 F.3d at 1365). Accordingly, the Court concludes that the Viggiano reference inherently disclosed the wavelength, area, and highest reflectance limitations.

As to enablement, Plaintiff again makes the same argument that the Court rejected above. According to Plaintiff, the Viggiano reference does not provide an enabling disclosure of the wavelength, area, and highest reflectance limitations. The Viggiano reference, however, specifically discusses using the disclosed Pantone ink sets for six-color lithographic printing. One skilled in the art could take the combination that includes at least three inks that fall within the scope of the '018 patent's six claimed colors and use them in a printing system. That is sufficient for enablement. See *Schering Corp.*, 339 F.3d at 1381 ("An anticipatory reference need only enable subject matter that falls within the scope of the claims at issue, nothing more.")

Thus, the Court concludes that the Viggiano reference inherently anticipates the remaining asserted claims of the '018 patent. Having determined that both the Wilcox Book and the Viggiano reference independently anticipate the remaining asserted claims, the Court need not reach the issues of whether (1) the Berns, ederMCS, and Kueppers references anticipate or (2) the Wilcox Book or the Berns, Viggiano, ederMCS, and Kueppers references render the remaining asserted claims obvious.

b. The Patent Examiner's Decision

Finally, as to both of Defendants' invalidity motions, Plaintiff argues that the Court should not disturb the U.S. Patent and Trademark Office's decision to allow the '018 patent over the Wilcox Book or the Viggiano reference. While a patent examiner's decision with respect to anticipation is material evidence that the Court "must consider in determining whether the party asserting invalidity has met its statutory burden by clear and convincing evidence," it is not binding on this Court. *Fromson v. Advance Offset Plate, Inc.*, 755 F.2d 1549, 1555 (Fed. Cir. 1985); see also *Microsoft Corp.*, 131 S. Ct. at 2251 (stating that "new evidence supporting an invalidity defense may 'carry more weight' in an infringement action than evidence previously considered by the PTO"). Here, while it is undisputed that both editions of the Wilcox Book and the Viggiano reference are listed in the "References Cited" section of the '018 patent, (Def. Wilcox Resp. ¶ 33; Def. Berns Resp. ¶ 16), the Court concludes that Defendants have satisfied their burden of proving by clear and convincing evidence that each limitation found in the remaining asserted claims of the '018 patent is at least inherently anticipated by the Wilcox Book and the Viggiano reference.

III. Conclusion

For the reasons set forth above, the Court grants Defendants' motion for summary judgment of invalidity based on the Wilcox Book [185], grants Defendants' motion for summary judgment of invalidity based on Berns, Viggiano, ederMCS, and Kueppers [189], denies Plaintiff's motion to strike [228], grants Defendants' motion for leave to file a sur-reply [233], and grants Defendants' motion to amend its L.R. 56.1 statement of material facts [238]. This case is set for further status on 10/31/2011 at 9:30 a.m.



Dated: September 30, 2011

Robert M. Dow, Jr.
United States District Judge