United States District Court,
E.D. Texas, Marshall Division.

ADVANCED TECHNOLOGY INCUBATOR, INC,
Plaintiff.
v.
SHARP CORPORATION, et al,
Defendants.

Civil Action No. 2:07-CV-468

June 26, 2009.

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ORDER

DAVID FOLSOM**, District Judge.**

Before the Court is Plaintiff Advanced Technology Incubator, Inc.'s ("ATI's") Objection to the Court's Claim Construction Ruling of March 11, 2009, Sharp Corporation's ("Sharp's") response (Dkt. No. 129), and Dai Nippon Printing Co.'s and DNP Color Techno Kameyama Co.'s (collectively, "DNP's") response (Dkt. No. 132). Also before the Court are Sharp's objections (Dkt. No. 125), ATI's response (Dkt. No. 131), Sharp's reply (Dkt. No. 138), and ATI's sur-reply (Dkt. No. 142). Further before the Court are DNP's objections (Dkt. No. 126), ATI's response (Dkt. No. 130), DNP's reply (Dkt. No. 140), and ATI's sur-reply (Dkt. No. 147). The Court held a hearing on May 19, 2009. Having considered the briefing, arguments of counsel, and all relevant papers and pleadings, the Court finds that the objections should be SUSTAINED IN PART and OVERRULED IN PART and that the Claim Construction Order (Dkt. No. 117) should be AFFIRMED IN PART and MODIFIED IN PART, as described herein.

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I. BACKGROUND

On October 29, 2007, ATI brought suit alleging infringement of United States Patent Nos. Re. 37,682 ("the '682 Patent") and Re. 36,711 ("the '711 Patent"). Following briefing on claim construction, United States

Magistrate Judge Barry A. Bryant held a claim construction hearing on January 22, 2009, and entered a Claim Construction Order on March 11, 2009 (Dkt. No. 117, referred to herein as "the Order"). The asserted claims of the patents-in-suit (claims 16, 18, 20, 22, 25, 26, and 29 of the '682 Patent and claims 4, 8, and 26 of the '711 Patent) are described in the Order. The following terms are the subject of objections to the Order:

(1) "layer" (all asserted claims);

(2) "said substantially opaque material being a black polyimide material" (Claim Element 2) (Claims 4 and 8 of the '711 Patent);

(3) "injecting a light influencing material ... in(to) said ... opening(s) (directly on the first substrate)" (Claim Element 4) (Claims 8 and 26 of the '711 Patent; Claims 16, 18, 20, and 29 of the '682 Patent);

(4) "disposing a continuous layer of transparent, passivating material atop said layer of opaque material and said light influencing material" (Claim Element 7) (Claims 4 and 8 of the '711 Patent; all asserted claims of the '682 Patent);

(5) "providing a second substantially transparent substrate member having a continuous layer of transparent conductive material disposed on one surface thereof, said second substrate being spacedly disposed from said first substrate and arranged so that the layer of transparent conductive material of said second substrate faces the layer of transparent conductive material of the first substrate" (Claim Element 9) (Claim 26 of the '711 Patent; Claims 22, 25, 26, and 29 of the '682 Patent);

(6) "patterning the continuous layer of transparent conductive material" (Claim Element 10) (Claims 22, 25, 26, and 29 of the '682 Patent);

(7) "providing a second substantially transparent substrate member having a layer of a transparent conductive material disposed on one surface thereof, said second substrate being spacedly disposed from said first substrate and arranged so that the layer of transparent conductive material of the second substrate faces the layer of transparent conductive material of the first substrate" (Claim Element 11) (Claims 16, 18, and 20 of the '682 Patent);

(8) "wherein the method does not use a photolithography process to form an opening in the light influencing material" (Claim Element 12) (Claim 26 of the '711 Patent); and

This Court reviews a magistrate judge's non-dispositive orders pursuant to Federal Rule of Civil Procedure 72(a). Because claim construction is a matter of law, this Court can review a magistrate judge's claim construction *de novo*. *Id.; cf.* Barrow v. Greenville Indep. School Dist., 202 F.R.D. 480, 482 (N.D.Tex.2001) (regarding magistrate judge's decision concerning leave to take depositions, noting that "[t]he 'clearly erroneous' standard applies to the factual components of the magistrate judge's decision" but that "[t]he magistrate judge's legal conclusions are freely reviewable.")

II. LEGAL PRINCIPLES OF CLAIM CONSTRUCTION

A determination of patent infringement involves two steps: first, the patent claims are construed, and, second, the claims are compared to the allegedly infringing device. Cybor Corp. v. FAS Techs., Inc., 138

F.3d 1448, 1455 (Fed.Cir.1998) (en banc). The legal principles of claim construction were reexamined by the Federal Circuit in Phillips v. AWH Corp., 415 F.3d 1303 (Fed.Cir.2005) (en banc). The Federal Circuit in Phillips expressly reaffirmed the principles of claim construction as set forth in Markman v. Westview Instruments, Inc., 52 F.3d 967 (Fed.Cir.1995) (en banc), *aff'd,* 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996), Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576 (Fed.Cir.1996), and Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc., 381 F.3d 1111 (Fed.Cir.2004). Claim construction is a legal question for the courts. Markman, 52 F.3d at 979.

The Court will review the Order in accordance with the doctrines of claim construction which it has outlined here along with those it has enunciated in the past. *See Pioneer Corp. v. Samsung SDI Co.,* No. 2:07-CV-170, Dkt. No. 94, at 2-8 (E.D.Tex. Mar. 10, 2008).

III. DISCUSSION

1. "layer" (all asserted claims)

ATI has proposed plain meaning for the term "layer." Dkt. No. 113, Ex. at 2. Sharp and DNP have proposed that the term "layer" means "a separate and distinct layer of material." *Id.* The Order construed the term "layer" to mean a "separate layer." Dkt. No. 117 at 17.

a. Objections

ATI objects to the Order's construction of the term "layer" as "separate layer." In particular, ATI argues that "separate" "does not appear in the claims, the specification, or the prosecution history and is not required to give any meaning to the disputed phrase." Dkt. No. 124 at 1. During oral argument on the objections, ATI argued that "some of the claims talk about a layer upon or atop a surface ... but the words upon and atop merely describe the location of the layer and the addition of the term separate is unnecessary." 5/19/2009 Objections Hr'g Tr., Dkt. No. 170 ("Objections Tr.") at 5:21-25. ATI submits that "[t]he addition of the term 'separate' is superfluous and will confuse the jury." Dkt. No. 124 at 2.

Sharp responds that "the specification, the drawings, and the claim language always show[ ] separate layers." Objections Tr. at 6:9-10. Sharp emphasizes that in the specification, the word layer is used "always in the context of upon, atop, or between." *Id.* at 6:17-19. Sharp submits that "you can't be atop something or upon something or between something if you are a part of that other thing." *Id.* at 7:2-3. Sharp cites Figure 3B as "show[ing] separate layers" and argues that "[t]hese respective layers (14, 26 and 30) clearly sit 'upon' or 'atop' one another, and they are not intermixed." Dkt. No. 129 at 2.

DNP also responds to ATI's objection. Dkt. No. 132. DNP argues that "the drawings, specification, and prosecution history of the asserted patents all unequivocally describe each layer as being separately disposed by a separate process step. *Id.* at 1. DNP also argues that ATI's previous proposal of "distinguishable" layer, as well as "layer" by itself, "are too vague to provide guidance to the jury." *Id.* at 2. DNP further cites prosecution history of a grandparent application wherein the applicant purportedly amended to overcome a rejection based on U.S. Patent No. 4,846,556 ("Haneda"). *Id.* at 4.

b. Discussion

Sharp's comment that layers "are not intermixed" (Dkt. No. 129 at 2) indicates that the parties genuinely dispute the scope of the term "layer." The Court must accordingly resolve whether the word "separate" is

appropriately part of the Order's construction. O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co., Ltd., 521 F.3d 1351, 1360 (Fed.Cir.2008) ("When the parties raise an actual dispute regarding the proper scope of these claims, the court, not the jury, must resolve that dispute.")

The specification does not indicate that "intermixing" between layers is impermissible. For example, the Order finds that intermixed boundary regions could exist where one layer contacts another layer but notes that "the drawings include solid lines indicating separate layers, and the language in the claims and the specification use terms such as 'upon' and 'atop' which define a separateness between the layers." *See* Dkt. No. 117 at 17-18 and 20. Although the word "separate" might be read to require that layers are separated by some distance (*i.e.,* are not in contact with one another), a better reading of "separate" in light of the specification is that layers are somehow divided from one another by a boundary, however imperfect the boundary may be. *See* Oxford English Dictionary (Second Edition 1989) (definition of "separate" can include "[p]arted, divided, or withdrawn from others; disjoined, disconnected, detached, set or kept apart"); *Phillips,* 415. F.3d. at 1316 (noting that "the specification necessarily informs the proper construction of the claims"). DNP's proposal of the word "distinct" more clearly captures the concept that the layers are distinguishable from one another, but the word "distinct" may be read to connote absolute distinction. Because some "intermixing" may be possible, as noted above, the layers are distinctive but not necessarily completely "distinct." FN1 The teaching in the specification that a layer is something that can be "disposed" on something or on another layer also indicates that layers are separate from one another, as also reflected in the figures. *See, e.g.,* '711 Patent at 3:26-27. In sum, the Order's construction of "layer" to mean "separate layer" should be affirmed.

FN1. For an analogy, see Sharp's Claim Construction Sur-Reply Brief: "ATI relies upon the analogy that 'icing may be atop a cake, even though the icing will blend into the porous cake at the surface.' (Reply at 8.) However, the icing and the cake remain two separate and distinct items. Although the icing may superficially 'blend into the [holes in the] porous cake at the surface,' they remain different elements and layers." Dkt. No. 91 at 4. Although baking a cake surely differs greatly from fabricating a liquid crystal display, the analogy is nonetheless of some persuasive value.

2. "said substantially opaque material being a black polyimide material" (Claim Element 2) (Claims 4 and 8 of the '711 Patent)

ATI has proposed plain meaning for the term "black polyimide material." Dkt. No. 113, Ex. at 2. Sharp and DNP have proposed that this term means "a polymer with an imido as the monomer unit and is of the color black." *Id*. The Order construed this term to mean "the material that substantially prevents transmission (or passage) of light is a black polyimide material."

a. Objections

DNP objects that "[t]he Order also errs in failing to construe the term 'polyimide in Claim Element 2 because DNP's construction provides additional guidance on the meaning of the term and properly relies on a dictionary definition, whereas the intrinsic record provides no explanation of the term." Dkt. No. 126 at 18. ATI responds that "DNP's proposed definition of 'black polyimide' was not supported by any intrinsic or extrinsic evidence, as DNP cited but then modified a dictionary definition." Dkt. No. 130 at 19.

b. Discussion

The specification provides no guidance on the meaning of "black polyimide" other than that it is an example of a "polymeric material." '711 Patent at 4:50-55. DNP's proposed dictionary-based definition "provides no more guidance to the jury than 'black polyimide material,' " as the Order found. Dkt. No. 117 at 50. The objections should be overruled and the Order should be affirmed as to "black polyimide material."

3. "injecting(/disposing) a light influencing material ... in(to) said ... opening(s) (directly on the first substrate)" (Claim Element 4) (Claims 8 and 26 of the '711 Patent; Claims 16, 18, 20, and 29 of the '682 Patent)

ATI has proposed plain meaning for the constituent term "injecting." Dkt. No. 113, Ex. at 2. Sharp and DNP have proposed that this term means "[u]sing a nozzle or other point source injecting mechanism to force light influencing material into each hole in the opaque material." *Id*. at 2-3. The Order construed the term "injecting" according to plain meaning and together with the term "in(to) said ... opening(s)" to mean "injecting a light influencing material ... in said ... opening(s)."

a. Objections

DNP argues that "the Order errs in failing to construe the term 'injecting' in Claim Element 4 because the term should be construed to mean 'using a nozzle or other point source mechanism to force ...,' which is supported by a dictionary definition." Dkt. No. 126 at 18.

b. Discussion

As the Order found, DNP has not shown that the constituent term "injecting" should be limited to a "nozzle or other point source mechanism" or any other particular mechanism. *See* Dkt. No. 117 at 24-25. DNP has not shown a genuine dispute as to the scope of this term, and DNP's proposed dictionary-based definition would not be more helpful than the original term. The objections should therefore be overruled and the Order should be affirmed as to the "injecting a light influencing material ... in(to) said ... opening(s) (directly on the first substrate)" terms.

4. "disposing a continuous layer of transparent, passivating material atop said layer of opaque material and said light influencing material" (Claim Element 7) (Claims 4 and 8 of the '711 Patent; all asserted claims of the '682 Patent)

The parties objections focus on the meaning of "passivating material." ATI has proposed that this term means:

Placing a continuous layer of transparent, passivating material atop the layer of opaque material and the light influencing material, *where the passivating material is a material that performs two of the following functions:* (1) levels the underlying filter and opaque layers to a continuous, flat surface to serve as a base on which subsequent layers may be formed; (2) electrically insulates the light influencing element from any electrically conductive layers that may be placed on the passivating layer; and (3) provides a flat, level surface so as to assure uniform thickness for any liquid crystal material placed thereon.

Dkt. No. 113, Ex. at 4-6 (emphasis added). Sharp has proposed:

The term "passivating material" means placing a separate and distinct layer of passivating material "*to a sufficient depth to perform at least two critical functions:* 1) to level the underlying filter and opaque layers

to a continuous, flat surface to serve as a base upon which subsequent layers may be formed; 2) to electrically insulate the light influencing element from any electrically conductive layers that may be disposed upon the passivating layer; and 3) to provide a flat, level surface so as to assure a uniform thickness for any layer of liquid crystal material disposed thereon.

Id. (emphasis added). DNP has proposed that this term means:

Placing a separate and distinct, continuous layer of transparent, electrically insulating material on top of and separate from the layer of material that prevents passage of light and the light influencing material, *wherein the passivating material is adapted to, and must be deposited to a depth sufficient to perform the following critical functions:* 1) to level the underlying filter and opaque layers to a continuous, flat surface to serve as a base upon which subsequent layers may be formed; 2) to electrically insulate the light influencing element from any electrically conductive layers that may be disposed upon the passivating layer; and 3) to provide a flat, level surface so as to assure a uniform thickness for any layer of liquid crystal material disposed thereon.

Id. (emphasis added). The Order construed this term to mean:

placing a continuous, separate layer of transparent, passivating material atop the separate layer of opaque material and the light influencing material, *where the passivating material is a material that performs two of the following functions:* 1) levels the underlying filter and opaque layers to a continuous, flat surface to serve as a base upon which subsequent layers may be formed; 2) electrically insulates the light influencing element from any electrically conductive layers that may be disposed upon the passivating layer; and 3) provides a flat, level surface so as to assure a uniform thickness for any layer of liquid crystal material disposed thereon.

Dkt. No. 117 at 42-43 (emphasis added).

a. Objections

DNP argues that "the passivating material also itself must be electrically insulating because that's the plain ordinary meaning of that claim [*sic,* term]." Objections Tr. at 20:10-15; *see also* Dkt. No. 126 at 6-7. DNP submits that while the written description specifies three critical functions of the passivating layer, the Order merely requires that any two of these three functions be satisfied. Objections Tr. at 21:19-22:8; *see also* Dkt. No. 126 (citing Pharmacia & Upjohn Co. v. Mylan Pharms., Inc., 170 F.3d 1373, 1377 (Fed.Cir.1999) & Heuft Systemtechnik GMBH v. Indus. Dynamics Co., Ltd., Nos.2007-1417, 2007-1462, 2008 WL 2518562, at (Fed.Cir. June 25, 2008). As further support, DNP notes that the requirement of a continuous passivating layer indicates that the passivating layer is electrically insulating because continuity is required to achieve electrical insulation. *Id*. at 23:4-8; Dkt. No. 126 at 9-10. DNP also argues that as to prosecution history, "the electrically insulating function of ATI's passivating layer was the only possible grounds for patentability over Haneda. Dkt. No. 126 at 10. DNP further argues that the list of "two critical functions" in the specification is really a list of two functions, despite including a three-part list, because two parts of that list refer to leveling to create a flat surface. *Id*. at 8-9. Therefore, DNP argues, the specification presents "two critical functions," including electrically insulating, that must be claim limitations. *Id*. at 9. DNP also submits that "[t]he Order erred ... by deleting the word 'critical' and adding the words 'of the following,' thereby incorrectly making critical functions *optional*." *Id*.

ATI responds that "[t]he specification says that the passivating material must perform at least two of three functions, only one of which is insulating." *Id*. at 31:12-14; Dkt. No. 130 at 5. ATI submits that the patentee "acted as his own lexicographer" in defining the passivating material. Dkt. No. 130 at 6-7. ATI also submits that "DNP incorrectly concludes that if the layer is continuous it must insulate." *Id*. at 7. As to prosecution history, ATI argues that "[n]either that inventor nor the USPTO examiner ever stated that the optional insulating function of the passivating layer was a point of distinction over Haneda." *Id*. at 8. ATI also argues that because several differences existed between rejected and allowed claims, no clear disavowal of claim scope occurred by amendment. *Id*. at 8-9.

DNP replies that "the specification clearly says that all three of those [listed] elements are critical.... [T]he [']critical['] adjective precedes the list." *Id*. at 33:15-17. DNP also asks the Court to "consider and rely on the dictionary definition offered by DNP." Dkt. No. 140 at 4. DNP also argues that "[r]ecognizing electrical insulation as a 'critical function' also avoids the mistake of interpreting the phrase 'critical functions' as 'optional functions' ..., and further avoids the Order's error of replacing the phrase 'two *critical* functions' with the unsupported phrase 'two *of the following*.' " Dkt. No. 140 at 5. DNP further argues that "disclosure of only insulating materials supports that the passivating layer is electrically insulating." *Id*. at 6 (citing Toro Co. v. White Consol. Indus., Inc., 199 F.3d 1295, 1301-02 (Fed.Cir.1999)).

In sur-reply, regarding prosecution history, ATI argues that allowed application claim 15 recites a "liquid crystal subassembly" that "includes *both* the color filter and the transparent conductive layer" while "the Haneda patent is limited to a color filter but does *not* disclose a subassembly with electrodes." Dkt. No. 147 at 2. Regarding the Certificate, ATI submits that "even assuming *arguendo* that the correction did not broaden the claim, whether a broadening correction would have been apparent to one of ordinary skill in the art, and thus allowed under 35 U.S.C. s. 255, is a question of *fact* for the jury." *Id*. at 3 (citing Arthocare Corp. v. Smith & Nephew, Inc., 406 F.3d 1365, 1374-75 (Fed.Cir.2005)).

b. Discussion

The parties agree that the patentee provided meaning for "passivating material" where the specification discloses as follows regarding the "passivating material 26":

The passivating material 26 is adapted to, and must be is [*sic*] deposited to a depth sufficient to perform at least two critical functions: 1) to level the underlying filter and opaque layers to a continuous, flat surface to serve as a base upon which subsequent layers may be formed; 2) to electrically insulate the light influencing element 10 from any electrically conductive layers that may be disposed upon the passivating layer; and 3) to provide a flat, level surface so as to assure a uniform thickness for any layer of liquid crystal material disposed thereon.

'711 Patent at 7:22-31; *see* ATI's Opening Brief Regarding Claim Construction, Dkt. No. 81 at 15-16; Sharp's Response Claim Construction Brief, Dkt. No. 83 at 12; DNP's Response Claim Construction Brief, Dkt. No. 84 at 6 and 15. The specification thus discloses that the passivating material "*must be* [ ] deposited to a depth sufficient to perform at least two *critical* functions ." *Id*. (emphasis added). Although a person or skill in the art could speculate that the patentee intended all three of functions "1)," "2)," and "3)" to be described as "critical" but erroneously stated "two critical functions" instead of "three critical functions," the actual text of the specification should be given weight. Further, the specification does not elsewhere clarify whether or not all three of the "critical functions" must be performed by the passivating material 26. Because the parties agree that the specification defines "passivating material" and because the specification

describes certain functions as "critical," the Court's construction should parallel the specification by requiring that the "passivating material" is configured such that "at least two" of the "critical" functions are satisfied. '711 Patent at 7:23.

As to the prosecution history, no prosecution disclaimer occurred at least because the patentee did not amend or argue over Haneda. Instead, the examiner allowed application claim 15 as originally filed and the patentee simply amended claims to depend therefrom. *See* 3/17/1993 Office Action and 3/30/199[3] Amendment, Dkt. No. 84 at Ex. D.

As the Order found, "[h]ad the inventor intended to require that all three functions be required and were 'critical' to be a passivating layer, then he could have used the word 'three.' " Dkt. No. 117 at 37. The Order properly found that the three functions of the "passivating layer" are distinct functions. In particular, the Order found that function "1)" and function "3)" are separate because these functions are listed separately, affect different layers, and are directed to different purposes. *Id*. at 41-42. The Order also properly found that the description of a "transparent, insulating, passivating material 26" is identified as a "preferred embodiment" and that the electrically insulating function is not required. *Id*. at 37-38. Further, the Order properly found that "[t]he fact that the inventor required a conductive layer be placed on the passivating layer does not lead to the conclusion that the passivating layer cannot be conductive." *Id*. at 38. Finally, the Order properly found no prosecution disclaimer requiring that the passivating layer be electrically insulating. *Id*. at 39-40.

The Order construed "passivating material" to mean "a material that performs two of the following functions," but neither the Order nor the specification indicate that two and only two functions are performed. Instead, the specification itself discloses that "*at least two* critical functions" are performed. For clarity, the construction of "passivating material" should include "a material that performs *at least* two of the following functions." As to whether the word "critical" should be included in the construction, the specification uses the word "critical," but including the functions in the construction already requires that these functions must be satisfied. The term "critical" should accordingly be omitted to avoid surplusage and to avoid confusion about the meaning of "critical."

For at least the foregoing reasons, the Court should construe the term "disposing a continuous layer of transparent, passivating material atop said layer of opaque material and said light influencing material" to mean "placing a continuous, separate layer of transparent, passivating material atop the separate layer of opaque material and the light influencing material, where the passivating material is a material that performs at least two of the following functions: 1) levels the underlying filter and opaque layers to a continuous, flat surface to serve as a base upon which subsequent layers may be formed; 2) electrically insulates the light influencing element from any electrically conductive layers that may be disposed upon the passivating layer; and 3) provides a flat, level surface so as to assure a uniform thickness for any layer of liquid crystal material disposed thereon."

5. "providing a second substantially transparent substrate member having a continuous layer of transparent conductive material disposed on one surface thereof, said second substrate being spacedly disposed from said first substrate and arranged so that the layer of transparent conductive material of said second substrate faces the layer of transparent conductive material of the first substrate" (Claim Element 9) (Claim 26 of the '711 Patent; Claims 22, 25, 26, and 29 of the '682 Patent)

ATI has proposed that this term means:

Providing a second substrate having a continuous layer of transparent conductive material placed on one surface. The substrates are assembled so that the first and second substrates are spaced apart from each other and the layer of conductive material of the first substrate and the layer of conductive material of the second substrate face each other.

Dkt. No. 113, Ex. at 7. Sharp has proposed:

The phrases "providing a second substantially transparent substrate member having a continuous layer of transparent material" and "said second substrate" mean a "continuous transparent conductive layer on the second substrate."

The overall phrase means "providing a second substrate having a continuous layer of transparent conductive material placed on its surface, where said second substrate is assembled so that the first and second substrates are spaced apart from each other and the layer of conductive material of the first substrate and the layer of conductive material of the second substrate face each other."

Id. DNP has proposed that this term means:

Providing a second substrate having a continuous layer of transparent electrically conductive material placed on its surface (i.e., directly onto the second substrate), where the first and second substrate are assembled so that the first and second substrates are spaced apart from each other and the layer of conductive material of the first substrate and the layer of conductive material of the second substrate face each other.

Id.

The Order construed this term to mean "providing a second substrate having a continuous layer of transparent conductive material placed on one surface. The substrates are assembled so that the first and second substrates are spaced apart from each other and the layer of conductive material of the first substrate and the layer of conductive material of the second substrate face each other." Dkt. No. 117 at 48-49.

a. Objections

Sharp submitted a Request for Clarification of the Order, which requested that a third sentence be added to the construction as follows: "With respect to claim 26 of the '711 patent, when the two substrates are assembled so that they face each other, the conductive layer on the second substrate is continuous." *See* Dkt. No. 120. Sharps argued, in part, that "the use of 'said second substrate' in Claim Element 9 demonstrates that the conductive layer must be 'continuous' because there is no reference in claim 26 of the ' 711 patent to a patterning step or a patterned conductive layer." *Id*. at 2. In support, Sharp argues that "a layer cannot be both 'continuous' and 'patterned' at the same time. *Id*. ATI responded that terms should be construed consistently across claims and that a "comprising" method claim should not be construed to exclude additional steps. Dkt. No. 121 at 2-3. Sharp replies that because the antecedent basis for "the layer" in Claim Element 9 refers to "a continuous layer," the layer must remain continuous, *i.e.*, cannot be patterned. *See* Dkt. No. 122. Magistrate Judge Bryant denied Sharp's request, finding that "no such clarification of Claim Element 9 is necessary." Dkt. No. 127 at 1-2.

b. Discussion

Claim Element 9 appears in both Claim 26 of the '711 Patent and claim 22 of the '682 Patent. The '682 Patent is derived from a continuation of the '711 Patent, and these two patents share a common parent application. *See* '682 Patent and '711 Patent at item [63] of cover page. Where "patents all derive from the same parent application and share many common terms, we must interpret the claims consistently across all asserted patents." NTP, Inc. v. Research In Motion, Ltd., 418 F.3d 1282, 1293 (Fed.Cir.2005); *see also* Jonsson v. Stanley Works, 903 F.2d 812, 818 (Fed.Cir.1990) ("The '912 patent is the result of a continuation-in-part application from the original '008 application, which led to the '251 patent. Hence ... the construction of the term 'diffuse light' contained in that patent, is relevant to an understanding of 'diffuse light' as that term is used in the '912 patent."). Claim Element 9 should therefore be interpreted consistently in both the '711 Patent and the '682 Patent if possible. The Court therefore rejects Sharp's argument that Claim Element 9 should be construed such that patterning is permissible in Claim 22 of the '682 Patent but impermissible in Claim 26 of the '711.

Further, Claim 26 of the '711 Patent is a method "comprising" several steps, which should generally not be construed to exclude additional steps. Genentech, Inc. v. Chiran Corp., 112 F.3d 495, 501 (Fed.Cir.1997); Smith & Nephew v. Ethicon, Inc., 276 F.3d 1304, 1311 (Fed.Cir.2001). Sharp has not shown that a layer cannot be "provid[ed]" as "a continuous layer" and then "pattern[ed]." Instead, the recitation of such a scenario in Claim 26 of the '711 Patent teaches that Claim Element 9 does not exclude patterning. The specification also suggests that a layer can be provided or disposed in a continuous manner and then patterned, as discussed in s. III.6, below. Sharp points to the absence of the words "continuous" or "patterned" in a similar step in Claim 18 of the '682 Patent, but Claim 18 does not outweigh, nor even contradict, the noted intrinsic evidence suggesting that a layer that is continuous can undergo patterning.

The Court expressly rejects the clarification requested by Sharp, and the order (Dkt. No. 127) on Sharp's Request for Clarification should accordingly be modified to reflect this rejection. The construction of Claim Element 6 in the Order (Dkt. No. 117) should be affirmed.

6. "patterning the continuous layer of transparent conductive material" (Claim Element 10) (Claims 22, 25, 26, and 29 of the '682 Patent)

ATI has proposed plain meaning for Claim Element 10. Dkt. No. 113, Ex. at 7-8. Sharp has proposed that Claim Element 10 is indefinite or, in the alternative, should mean: "patterning the continuous layer of transparent conductive material on the first substrate." *Id*. DNP has proposed that this term is indefinite or should mean:

After the second substrate and the first substrate are assembled so that the first and second substrates are spaced apart from each other and the layer of conductive material of the first substrate and the layer of conductive material of the second substrate face each other, the layer of transparent electrically conductive material is patterned to form a plurality of electrodes.

Id.

The Order construed this term to mean "patterning the continuous layer of transparent conductive material on the second substrate. This patterning step may be done before or after the substrates are arranged such that they face each other." Dkt. No. 117 at 49.

a. Sharp's Objections

Sharp argues that "ATI wants this [term] to mean that the second substrate can have a patterned layer of conductive material." Objections Tr. at 10:8-10. Sharp submits that the second substrate has a continuous layer and that "a conductive layer cannot be continuous and patterned at the same time." *Id*. at 9:4-6. Sharp also argues that the transition phrase "comprising" does not abrogate the limitation that the layer of conductive material on the second substrate is a continuous layer. *Id*. at 14:16-21.

ATI responds that use of the transition phrase "comprising" indicates that "before you take the two sides of the LCD and combine them together, you can treat that conductive layer on the second substrate," such as by patterning it. *Id*. at 17:7-9; *see also* Dkt. No. 131 at 12-13 (citing '711 Patent at 8:10-17 and Smith & Nephew, 276 F.3d at 1311). ATI argues that Sharp's proposal would conflict with the presumption that claim terms are used consistently throughout the claims. Dkt. No. 131 at 11 and 14.

In reply, Sharp reiterates that the antecedent for "the layer of transparent conductive material" is "a continuous layer of a transparent conductive material." Dkt. No. 138 at 4. As to consistent use throughout the claims, Sharp submits that Claim 22 of the '682 Patent is different from Claim 26 of the '711 Patent because Claim 22 also recites Claim Element 10, the step of "patterning the continuous layer of transparent conductive material ."

b. DNP's Objections

DNP argues that the Order improperly splits Claim Element 9 (into a providing portion and an assembling portion), "thereby allowing another step (patterning) to intervene." Dkt. No. 126 at 16. DNP submits that "[t]he Order recognizes that patterning *after* the substrates are arranged would be inoperative ... but nevertheless includes this inoperative embodiment within the scope of the claim by stating that the patterning may be done before *or after* the substrates are arranged to face each other." *Id*. at 18 (citing EMI Group N. Am., Inc. v. Cypress Semiconductor Corp. ., 268 F.3d 1342, 1349 (Fed.Cir.2001)). DNP also argues that "disposed on one surface" means that the conductive material is placed in direct contact with the surface of the second substrate. Dkt. No. 126 at 18.

ATI responds that "the specification and the claims contemplate that the second substrate's *continuous* layer of conductive material may be further processed to provide a *patterned* layer." Dkt. No. 130 at 17. ATI cites a portion of the specification that discloses that "[t]he layer of transparent conductive material 42 may be either a continuous layer or may be a patterned layer...." *Id*. (quoting '682 Patent at 8:14-16). ATI submits that "[o]ne of ordinary skill would not read the claims to require that patterning, such as by a photolithographic process, be applied to the conductive material only *after* the screen is assembled, because such a process would be nonsensical." *Id*.

DNP replies by citing authority that "courts should not rewrite claims to preserve validity." Dkt. No. 140 at 10 (quoting Nazomi Commc'ns, Inc. v. Arm Holdings, PLC, 403 F.3d 1364 (Fed.Cir.2005). DNP proposes that the Court "should either: (1) modify the construction order of claim 22 so that the claim steps must be performed in the order written; or (2) hold claim 22 invalid by recognizing that the current construction includes this inoperative embodiment because the Order states that the patterning may be done before or after the substrates are arranged to face each other." Dkt. No. 140 at 10.

c. Discussion

As the Order summarized, the parties dispute whether Claim Element 10 "relates to patterning the conductive layer on the *first* [substrate] or the *second* substrate, as each substrate includes a separate conductive layer." Dkt. No. 117 at 45. In "patterning the continuous layer of transparent conductive material," the constituent term "the continuous layer of transparent conductive material" includes the definite article "the," which generally refers back to a specific antecedent basis. *See* NTP, 418 F.3d at 1306; *see also* Baldwin Graphic Sys. Inc. v. Siebert, Inc., 512 F.3d 1338, 1342-43 (Fed.Cir.2008). As noted in the Order, the only prior recitation of "continuous layer of transparent conductive material" in Claim 22 of the '682 Patent is to such a layer of the second substrate, recited in Claim Element 9. The Order's finding that "the 'patterning' must be of the conductive layer on the second substrate, not of the conductive layer on the first substrate" should therefore be affirmed.

As to order of steps, the Order found that the "patterning step may be done before or after the substrates are arranged such that they face each other." Dkt. No. 117 at 49. Despite this conclusion, the Order also found that "after the two substrates are arranged so as to face each other, it would be unreasonable to then pattern the conductive layer." Dkt. No. 117 at 48.

Whether the order of the steps recited in a method claim must be performed in a particular order is properly a part of claim construction. *See, e.g.,* Altiris, Inc. v. Symantec Corp., 318 F.3d 1363, 1371-72 (Fed.Cir.2003). Generally, steps may be performed in any order so long as "nothing in the intrinsic evidence" compels otherwise. Id. at 1370; *see also* Baldwin, 512 F.3d at 1345 (Fed.Cir.2008) ("As a general rule the claim is not limited to performance of the steps in the order recited, unless the claim explicitly or implicitly requires a specific order.") (citing Interactive Gift Express, Inc. v. Compuserve Inc., 256 F.3d 1323, 1342-43 (Fed.Cir.2001)); Mantech Envtl. Corp. v. Hudson Envtl. Servs. Co., 152 F.3d 1368 (Fed.Cir.1998).

ATI acknowledges that the "patterning" step must be performed before the substrates are "arranged": FN2

FN2. The parties' briefing and arguments of counsel indicate that the term "arranged" in Claim 22 is being interpreted as "assembled," as evident from the following quoted text from ATI and from the following footnote regarding statements by DNP's counsel.

One of ordinary skill would not read the claims to require that patterning, such as by a photolithographic process, be applied to the conductive material only after the screen is assembled, *because such a process would be nonsensical*. Because this reading is absurd, one of ordinary skill would not read such a limitation into the claims.
Dkt. No. 130 at 18 (emphasis added). In this quoted passage, ATI argues that the claim should not be interpreted to require that "patterning" occur *after* the "arrang[ing]" because such a process would be "nonsensical" and "absurd." *Id.;* '682 Patent at Claim 22, 11:33-41. Thus, ATI appears to acknowledge that "patterning" must occur *before* "arrang[ing]" in the context of the '711 Patent and the '682 Patent.FN3 DNP also agrees the order recited in the claim is technically impracticable.FN4 However, DNP apparently acknowledges a required order based on the specification. Dkt. No. 84 at 8 ("The layer of conductive material may be left as a continuous layer or may be patterned by photolithography to form display electrodes. (*Id*. at Fig. 4, ref. No. 42; *id*. at 8:14-17). The two plates are then arranged so that the different layers of material disposed on the two substrates face each other. (*Id*. at Fig. 4; *id*. at 8:21-24)"). Also, the Order found that "even a rudimentary understanding of the technology behind the fabrication of a liquid crystal display would dictate against requiring such a construction [*i.e.,* to require the patterning after the

substrates are arranged]. Namely, after the two substrates are arranged so as to face each other, it would be unreasonable to then pattern the conductive layer." Dkt. No. 117 at 48.
FN3. *See also* 1/22/2009 Claim Construction Hr'g Tr., Dkt. No. 116 at 143:11-14 ("In this case, based on the preferred embodiments and the specification in which photolithography is used to pattern this layer, logic dictates that you read the claim such that patterning occur before assembly.")

FN4. THE COURT: "[F]rom DNP's briefing it seemed to me that you seem to require or are wanting to require Claim 22 to be done in sequence. In other words you're-the way you interpret that is once the assemblies are put together, the subassemblies are put together, then if there is going to be any patterning on the second substrate, it has to happen then. Is that the way you're-is my reading of your position correct?

MR. CHALSEN: Yes, that's our argument, Your Honor. And actually this is another one of our indefinite-it's really an indefinite in that this claim really is inoperable or it's invalid. It can't be- *it's not practical-*

THE COURT: And I take it-

MR. CHALSEN:- *to put in place and then do the patterning*. So as it is written the claim is invalid.

THE COURT: So if that is correct, your interpretation is correct and Claim 22 has to be essentially performed or the product assembled in that sequence, any patterning of the second substrate would take place once it is put together.

MR. CHALSEN: Yes.

THE COURT: And I take it from what everybody has said, these two panels, these two substrates are only a few fraction of an inch, a few millimeters perhaps, or less. I mean they're a very, very narrow space and there's no process to do that once they're together; is that accurate?

MR. CHALSEN: Well, I mean in the current manufacturing environment where practical devices are being made, yes. But theoretically the claim is not limited to micron-

THE COURT: As I understand it, the laser that's used, that's described here and the other processes that were described, these essentially are big-these are big machines. I mean they are physically large things. They are not microscopic in size is what I'm getting at.

MR. CHALSEN: Yes, that's true, Your Honor. *I think our point is really that the claim says what it says, interpret it that way, in sequence that the steps should be performed at the point in the claim where it says it is performed*.

THE COURT: All right.

MR. CHALSEN: *And if it can't be, it's inoperable*.

1/22/2009 Claim Construction Hr'g Tr., Dkt. No. 116 at 136:13-137:25 (emphasis added).
The Court applies a two-part test to determine whether a particular order of steps in a method claim is required: "First, we look to the claim language to determine if, as a matter of logic or grammar, they must be performed in the order written." Altiris, 318 F.3d at 1370. (citation omitted). "If not, we next look to the rest of the specification to determine whether it directly or implicitly requires such a narrow construction." Id. at 1371 (citation omitted).

The specification describes the steps of forming a continuous layer and then patterning the continuous layer associated with the first substrate. The same is done for the layers of the second substrate: forming a continuous layer, then patterning of the continuous layer associated with the second substrate. ' 682 Patent at 8:10-25. The disclosure then describes the step of arranging together the first substrates and the second substrates. *Id*. at 7:39-52. In particular, "[t]he layer of conductive material may be left as a continuous layer or may be patterned by photolithography to form display electrodes.... The two plates are arranged so that the different layers of material disposed on the two substrates face each other." *Id*. at 8:14-24.

Moreover, the drawings demonstrate the same sequence described in the disclosure: patterning the continuous conductive layer and then arranging the two substrates together. The procedure of patterning is depicted by the drawings, such as Figures 3B and 3C, which show that the first conductive material layer ("transparent conductive oxide material 30") may be continuous initially and then "patterned" by etching away parts of the material, leaving rectangular stubs ("electrodes 32a-32f," Fig. 3C). *Id*. at 7:39-50. Patterning can thus be performed to provide electrodes. '682 Patent at 8:10-25. In addition, the specification describes that either or both continuous layers may be patterned to form electrodes due to the symmetry of the technology. *Id*. at 7:39-47 and 8:14-17. The specification refers to either of two "transparent conductive oxide material" layers (30 (Fig.3B) and 42 (Fig.4)) that are continuous initially and then may be subsequently patterned by a photolithographic process. *Id*. Finally, after patterning a continuous layer in Figure 3C, the two substrates with their associated layers are arranged together, as shown in Figure 4. The written description and the drawings are thus consistent with first requiring "patterning the continuous layer" and then the "second substrate being spacedly disposed from said first substrate and arranged ...."

Claim 22 does not explicitly recite the order described in the specification. Rather, Claim 22 recites the step of "patterning" after the step that includes arranging the substrates together. The term was apparently added to the limitations of claim 13 of the originally-granted patent, U.S. Pat. No. 5,576,070, during reissue prosecution to create Claim 22 of the '682 Patent. The term was presumably inserted after the second "providing" step so that "the continuous layer" in the "patterning" step would have proper antecedent basis. That is, by appearing in the claim after the initial recitation of "a continuous layer" in the second "providing" step of Claim 22, "the continuous layer" would have refer back to "a continuous layer" earlier in the claim. In adding the "patterning" step during reissue, the patentee did not disturb the wording of the second "providing" step, which appears immediately before the "patterning" step.

Although the recited order of these two particular steps in the claim is apparently impracticable, the intrinsic evidence demonstrates the necessary order, as discussed above. *See* Phillips, 415 F.3d at 1313. As the *Baldwin* court explained: "The specification informs the meaning of the claims. [*Phillips*] acknowledged the difficult distinction between 'using the specification to interpret the meaning of a claim and importing limitations from the specification into the claim.' [*Phillips*] explained, however, that the distinction is manageable 'if the ... focus remains on understanding how a person of ordinary skill in the art would understand the claim terms.' " Baldwin, 512 F.3d at 1345. A person of ordinary skill at the time of filing the application would have understood, in light of the entire specification, that the step of "patterning" must be performed before "arrang [ing]" the substrates so as to be "spacedly disposed" from one another. '682 Patent at 11:33-43.

At the time of the patent application, a person of ordinary skill in the art would have known of photolithographic techniques applicable to the color liquid crystal display devices. *See id*. at 7:32-37 ("Thereafter, employing photolithographic techniques well know[n] in the art, the layer of transparent conductive material 30 is patterned to form a plurality of electrodes 32a-32f...."). Moreover, the "Background of the Invention" of the '682 Patent cites to photolithographic articles. *Id*. at 1:62-2:21. An electrical engineering handbook published near the filing of the patent confirms the general knowledge of photolithography as described in the '682 Patent. *See* Richard Dorf, *The Electrical Engineering Handbook* 487-89, 1159-60, 1772-1775 (1993). Also, the "Background" section of the specification states that "color liquid crystal display devices are well known in the art, and one exemplary such device is set forth in United States Patent No. 4,632,514 to Ogawa, et al, entitled 'COLOR LIQUID CRYSTAL DISPLAY APPARATUS.' " *Id*. at 1:57-60. The Ogawa reference describes a distance of only five to eight microns in a gap region between two substrates when arranged together. Reading the '682 Patent, a person with even rudimentary knowledge of photolithography at the time of filing of the patent application would have thus recognized the impracticability of patterning the continuous layer after the two substrates have been arranged together. *See* Dorf at 445, 487-89, 1159-60, 1772-1775 (noting that "[l]ithography is a patterning process in which a mask pattern is transferred by a radiation source to a radiation sensitive coating," and illustrating (in Figures 21.3, 53.3) the relative size of the necessary equipment, which appears too large to fit within gaps that are on the order of microns in width.).

The present case is distinguishable from *Altiris,* which found that "the district court ran afoul of our prohibition against importing a limitation from the specification into the claims-here [the imported limitation being] the order of steps used by the sole, preferred embodiment." 318 F.3d at 1369. The district court under review in *Altiris* relied on the specification to construe an order of recited steps even though the claims did not recite a required order. *Id*. The *Altiris* court found that the specification did not state that the particular order described was important. *Id*. at 1371. Moreover, expert testimony considered by the *Altiris* court supported finding that a person of ordinary skill would have understood that any order was technologically feasible. *Id*. In the context of the layered-fabrication methodology before this Court, however, "patterning" after "arrang[ing]" would be technically impracticable, or "nonsensical," as discussed above. Further, the specification of the '682 Patent provides no apparent support for "patterning" after "arrang[ing]," so construing Claim 22 to allow such an order of steps is disfavored. *See* Modine Mfg. Co. v. I.T.C., 75 F.3d 1545, 1557 (Fed.Cir.1996) ("When claims are amenable to more than one construction, they should when reasonably possible be interpreted so as to preserve their validity.") (citations omitted).

For at least the foregoing reasons, the Court construes the term "patterning the continuous layer of transparent conductive material" to mean "patterning the continuous layer of transparent conductive material on the second substrate, wherein the patterning is performed before the second substrate is spacedly disposed

from said first substrate and arranged so that the layer of transparent conductive material of the second substrate faces the layer of transparent conductive material of the first substrate."

As to indefiniteness, the portion of the Order's construction holding that "[t]his patterning step may be done before or after the substrates are arranged such that they face each other" is modified by this order. DNP's indefiniteness argument is therefore moot.

As to DNP's objection based on the purported invalidity of Claim 22 under 35 U.S.C. s. 101, whether a claim satisfies utility requirements is a question of fact. *See, e.g.,* In re Fisher, 421 F.3d 1365, 1369 (Fed.Cir.2005); Raytheon Co. v. Roper Corp., 724 F.2d 951, 956 (Fed.Cir.1983). Any such issues should be presented in a motion for summary judgment or during trial rather than during claim construction. The Court accordingly declines to address utility at this time.

7. "providing a second substantially transparent substrate member having a layer of a transparent conductive material disposed on one surface thereof, said second substrate being spacedly disposed from said first substrate and arranged so that the layer of transparent conductive material of the second substrate faces the layer of transparent conductive material of the first substrate" (Claim Element 11) (Claims 16, 18, and 20 of the '682 Patent)

The Order adopted the same construction for this term as Claim Element 9 except that "continuous" was not included prior to the phrase "layer of transparent conductive material" in the first sentence of the construction. Dkt. No. 117 at 49. That is, the Order construed this term to mean "providing a second substrate having a layer of transparent conductive material placed on one surface. The substrates are assembled so that the first and second substrates are spaced apart from each other and the layer of conductive material of the first substrate and the layer of conductive material of the second substrate face each other." *See id*. For at least the reasons set forth with regard to Claim Element 9, above, the Order should be affirmed.

8. "wherein the method does not use a photolithography process to form an opening in the light influencing material" (Claim Element 12) (Claim 26 of the '711 Patent)

The parties have agreed that the "the light influencing material cannot be the substantially opaque material." Dkt. No. 113, Ex. at 9.

ATI has proposed that Claim Element 12 means that "[t]he method does not use a photolithographic process to form an opening in the light influencing material." *Id*. Sharp has proposed that "[t]he overall phrase requires forming 'an opening in the light influencing material' by a process other than photolithography." *Id*. DNP has proposed "[t]he method forms the hole in the light influencing material by a method other than photolithography," under which DNP argues Claim 26 is indefinite. Alternatively, DNP also proposes: "The method forms the hole in the light influencing element (*i.e.,* substantially opaque material) by a method other than photolithography." *Id*. at 10.

The Order construed Claim Element 12 to mean "[t]he method does not use a photolithography process to form an opening in the light influencing material."

a. Sharp's Objections

Sharp objects that the Order's construction "injects 'new matter' into claim 26 of the '711 reissue patent."

Dkt. No. 125 at 2. Sharp submits that "there is no affirmative discussion or teaching in the '711 patent specification of *forming an opening in the light influencing materials by a non-photolithographic process*." *Id*. For example, Sharp argues that "a general distinction of the prior art *without teaching* how openings should be formed by a *non-photolithographic process* in the light influencing materials *is not a written description* of the invention." *Id*. at 5.

ATI argues that the Order's construction is correct because this term is "an entirely permissible negative limitation" and relates to a major advantage over photolithography, which is "very inefficient." Objections Tr. at 27:13-28:3; *see also* Dkt. No. 131 at 4. ATI explains that "the inventor's solution was to use an ink jet process that puts the color that you want right where you want it." Objections Tr. at 28:25-29:1. ATI submits that even if the Certificate broadened this term, this term is a negative limitation. *Id*. at 29:17. Because broadening a negative limitation would necessarily narrow claim scope, ATI argues, the Certificate could not possibly have broadened Claim 26. *Id*. at 29:17-18. ATI also argues that DNP's proposed construction is unreasonable because Claim 26 does not recite a "light influencing element." *Id*. at 30:2-6. ATI further submits that "correcting a typographical error is something that the Court can do so long as the correction is not subject to reasonable debate and the prosecution history doesn't suggest a different interpretation." *Id*. at 30:12-16.

ATI further argues that the Order's construction does not require that any openings are actually formed in the light influencing material but instead "merely requires that photolithography *not be used to form* openings in the light influencing material." Dkt. No. 131 at 6 (discussing Order at 54) and 9. ATI also submits that Claim 26 presents no "new matter" because the specification discloses that "an opaque 'light barrier' layer is deposited on a transparent substrate (such as a piece of glass), openings are created in the opaque layer, and a desired color dye, ink, or pigment may be injected in the openings of the opaque layer by, for example, ink jet technology." *Id*. at 7.

In reply, Sharp argues that Claim Element 12 is "new matter" because "nothing in the description of the '711 patent invention that discusses openings or non-openings in the light influencing materials after the light influencing materials are injected into the substantially opaque material (the black matrix)." Dkt. No. 138 at 10 (emphasis omitted).

In sur-reply, ATI emphasizes that Sharp's "new matter" argument on Claim Element 12 improperly attempts to present, in effect, a dispositive motion. Dkt. No. 142 at 1. Also, as to the antecedent basis argument on Claim Element 9, ATI submits that additional steps are not precluded and that "the word 'said' refers to the second substrate, not the layer of conductive material. *Id*. at 3-4.

b. DNP's Objections

DNP notes that a January 15, 2008 Certificate of Correction ("the Certificate") changed "the opening" to "an opening" in Claim 26. *See* Dkt. No. 84, Ex. H at ATI0000077. DNP argues that because the Patent and Trademark Office entered this Certificate after ATI filed the present suit, the Court must construe Claim 26 as it stood before the Certificate, at least as concerns pre-Certificate activity. Objections Tr. at 23:14-22. DNP contends that "without the Certificate of Correction, ... Claim 26 is invalid as being insolubly ambiguous" due to lack of antecedent basis for "the opening." *Id*. at 23:25-24:2; Dkt. No. 126 at 14. DNP submits that "the specification *never* used the phrase "opening in the light influencing material." Dkt. No. 126 at 13. DNP also argues that ATI cannot meet the standard for judicial correction of Claim 26. Objections Tr. at 24:17-25:6. Moreover, DNP argues, Claim 26 is invalid even post-Certificate because the

Certificate "is actually an impermissible Certificate of Correction because it had the effect of broadening the claim without support in the specification." *Id*. at 26:2-6.

DNP proposes that "[a] more appropriate and supported correction of the phrase 'opening in the light influencing material' would have been to the phrase 'opening in the substantially opaque material.' " Dkt. No. 126 at 14. Claims 16, 22, and 33, DNP points out, include "opening(s) through said layer of substantially opaque material" and recite that "the openings are formed without using a photolithography process." *Id*. at 16. Therefore, DNP argues, Claim 26 "should be recognized as erroneous and understood to mean that the *opening in the substantially opaque material* is formed without using a photolithography process. *Id*. (citation omitted). DNP objects to the Order's finding that DNP's proposed construction would exclude an embodiment in the specification that uses photolithography to form openings in the substantially opaque material. Dkt. No. 126 at 15. DNP objects that "a claim need not cover all embodiments." *Id*. (quotation omitted).

In addition to ATI's arguments noted above with regard to Sharp's objections, ATI argues that DNP's request to find the Certificate invalid requires factual findings and is therefore improper in the context of claim construction. Dkt. No. 130 at 11. Also, ATI submits that DNP's proposed construction is incorrect because "the inventive process or method Claim 26 of the '711 Patent does not require the repeated application of multiple different colors (light influencing materials) across the substrate followed by the creation of openings in the light influencing material (to remove colors where not desired) by photolithographic processes." *Id*. at 13. ATI also proposes, regarding judicial correction, that "[t]he correction proposed by ATI (and memorialized in the Certificate) is the type of obvious, insubstantial change that courts routinely make" and that the correction "is an insubstantial change that does not alter the claim's scope." *Id*. at 14 (citing Slimfold Mfg. Co. v. Kinkead Properties, Inc., 626 F.Supp. 493, 497 (N.D.Ga.1985)).

DNP responds that "ATI cannot satisfy the very heavy burden that 'the correction is not subject to reasonable debate based on consideration of the claim language and the specification.' " Dkt. No. 140 at 7 (quoting Novo Indus. v. Micro Molds Corp., 350 F.3d 1348, 1357 (Fed.Cir.2003)). DNP distinguishes *Slimfold* as involving amendment in reissue prosecution, not judicial correction. *Id*. at 7-8. Regarding appropriateness of deciding Certificate validity as part of claim construction, DNP submits that "[i]t is certainly within the Court's discretion to address the CoC as an interlocutory matter and obviously it would be most efficient to resolve all CoC and related claim construction issues at once." *Id*. at 9. DNP also reiterates that "the specification *never* uses the phrase 'opening in the light influencing material' and does not disclose any methods for forming such non-existent openings." *Id*. at 9-10.

c. Discussion

"Invalidating a certificate of correction for impermissible broadening ... requires proof of two elements: (1) the corrected claims are broader than the original claims; and (2) the presence of the clerical or typographical error, or how to correct that error, is not clearly evident to one of skill in the art." *Cent. Admixture Pharmacy Servs., Inc. v. Advanced Cardiac Solutions, P.C.,* 482, F.3d 1347, 1353 (Fed.Cir.2007). The Order found that the validity of the February 15, 2008 Certificate of Correction was not fully before the court during claim construction. Dkt. No. 117 at 53. The Court agrees that factual findings beyond the scope of claim construction would be required. The Court affirms the Order in this regard and declines to decide validity of the Certificate at this time. Regardless, causes of action that arise before the Certificate must be considered without benefit of the Certificate. Southwest Software, Inc. v. Harlequin Inc., 226 F.3d 1280, 1295, 1297 (Fed.Cir.2000). This Court therefore addresses herein both uncorrected Claim Element 12 and

corrected Claim Element 12.

Judicial correction of an error in a patent may be available, at least where no certificate of correction has addressed the error, "if (1) the correction is not subject to reasonable debate based on consideration of the claim language and the specification and (2) the prosecution history does not suggest a different interpretation of the claims." Novo, 350 F.3d at 1354. Judicial correction of a claim is retroactive. Advanced Medical Optics, Inc. v. Alcom Inc., 361 F.Supp.2d 370, 384 (D.Del.2005). Even though the correction proposed by ATI is the same as issued in the Certificate, judicial correction (and its retroactive effect) is not appropriate here. Because the purported error is more significant than a mere misspelling or missing letter, the Court declines to apply the doctrine of judicial correction to change "the" to "an" in Claim Element 12, as discussed in more detail below. *See* LG Electronics, Inc. v. Quanta Computer Inc., 566 F.Supp.2d 910, 913 (W.D.Wis.2008) (noting the "nearly impossible standard for judicial correction of a patent" and citing *Novo Industries,* which the court noted "refus[ed] to correct 'a' to 'and' because other possibilities for correction existed").

The "new matter" arguments are also rejected at this time as not properly part of claim construction. Although claims should be construed in light of the teachings of the specification, and although indefiniteness is a proper subject of claim construction, invalidity for "new matter" should be addressed in the context of summary judgment or trial. *Cf.* Brooktree Corp. v. Advanced Micro Devices, Inc., 977 F.2d 1555, 1574 (Fed.Cir.1992) (in context of 35 U.S.C. s. 132, noting that "[t]he question whether new matter has been added to an application is a question of fact"); Hester Indus., Inc. v. Stein, Inc., 142 F.3d 1472 (Fed.Cir.1998) (reviewing grant of summary judgment that asserted reissue claims were invalid for failing to meet requirements of 35 U.S.C. s. 251); Commonwealth Scientific and Indus. Research Org. v. Buffalo Tech., Inc., 542 F.3d 1363, 1370, 1378-80 (Fed.Cir.2008) (with regard to 35 U.S.C. s. 132, reviewing summary judgment regarding new matter, which involves questions of fact). The portion of the Order finding that "this claim element does not describe 'new matter' " should therefore be vacated. Dkt. No. 117 at 55.

The Court turns to the language of Claim 26, to the language of other claims, and to the specification to inform the proper construction of uncorrected Claim Element 12.

Claim 26 recites, in part, "forming an opening through said layer of substantially opaque material." '711 Patent at 11:46-47. Claim Element 12 then recites "wherein the method does not use a photolithography process to form the opening in the light influencing material." *Id.* at 12:3-5. Claim 26 includes no recitation of an "opening in the light influencing material" other than in Claim Element 12. Further, Claim 26 includes no recitation of an "opening" other than in "forming an opening through said layer of substantially opaque material." Given that the definite article "the" generally refers to an antecedent basis, a person of ordinary skill in the art could read "the opening" in Claim Element 12 to refer to "an opening through said layer of substantially opaque material." *See* NTP, 418 F.3d at 1306 (Fed.Cir.2005); *see also* Baldwin, 512 F.3d at 1342-43. Such a reading, however, is at odds with language of Claim Element 12 that specifies that the opening is "in the light influencing material." Claim 26 therefore does not give clear guidance on the meaning of Claim Element 12. The Court turns to other claims that may inform the meaning of Claim 26 and Claim Element 12.

Claims 27-31 depend from Claim 26. Claim 28 recites, "The method according to claim 26, wherein *the openings* are optically formed." '711 Patent at 12:9-10 (emphasis added). Claim 28 thus contemplates more than one opening. In Claim 26, the indefinite article "an" in the phrase "forming an opening through said

layer of substantially opaque material" can refer to one or more openings. *See, e.g.,* KCJ Corp. v. Kinetic Concepts, Inc., 223 F.3d 1351, 1356 (Fed.Cir.2000). If "the opening" in Claim Element 12 refers to "an opening through said layer of substantially opaque material," then the limitations of Claim 26 could be satisfied by only one opening. Such a reading would thus contradict the recitation of "the openings" (plural) in Claim 28, which suggests that Claim 26 recites more than one opening: (1) "opening through said layer of substantially opaque material," and (2) "opening in the light influencing material."

Claim 29, however, recites, "The method according to claim 26, wherein the light influencing material fills *the opening* to a level less than a depth of the opening so as to prevent any spill over of the light influencing material." '711 Patent at 12:11-14 (emphasis added). By reciting "the opening" in the singular, Claim 29 suggests that Claim 26 recites only one opening. Claims 27, 30, and 31 (the remaining claims depending from Claim 26) do not recite any "opening." The claims depending from Claim 26 therefore provide little consistent guidance on the number of openings defined by Claim 26. Instead, by providing contradicting guidance, the claims depending from Claim 26 merely indicate that ambiguous drafting permeates these claims.

Still, because Claims 28 and 29 do not specify a type of "opening," a person of ordinary skill in the art could conclude that Claim 26 is meant to refer to only one type of opening. In other words, Claims 28 and 29 seem to assume that "the opening" in Claim Element 12 refers back to 'an opening through said layer of substantially opaque material" for a antecedent basis. This result seems more favorable because, under such a reading, Claims 28 and 29 can be corrected by changing "openings" to "opening" in Claim 28 rather than by speculating about which "opening" these Claims 28 and 29 were meant to reference. On balance, though, these dependent claims do not provide clear enough guidance to reach any conclusions about Claim Element 12. The Court next turns to the specification.

The specification describes openings formed through opaque material:

Formed in said layer of substantially opaque material 13 is at least one opening 16 which extends through said layer 14 to the substrate 12 ... Alternatively, the openings may be formed as one or more elongated strips in the layer of substantially opaque material.

The openings 16 themselves may be formed by any one of a number of techniques, such as a conventional photolithographic and etch technique. In one preferred embodiment of the method of the instant invention, which is described in greater detail hereinbelow, the openings 16 are formed by employing a high resolution[,] i.e., capable of at least micron scale resolution, high power laser device, such as an excimer laser adapted to cut a plurality of similarly sized and shaped openings in the layer of substantially opaque material 14.

'711 Patent at 5:1-23. The specification does not provide clear guidance on an "opening in the light influencing material." Instead, "light influencing material" is disposed within openings:

Disposed in each of the openings 16 is a light influencing material selected to provide a desired optical effect. For example, if the light influencing material is to be employed as a color filter element, dye, ink such as the ink used in so-called ink-jet technology or other color pigments may be disposed in said openings 16. The dyes or pigments, which may be either of the additive or subtractive variety, would be disposed in a manner and to a thickness sufficient to, for example, color white light red as it passed therethrough.

'711 Patent at 5:33-41. These passages of the specification regarding "light influencing material" would be consistent with finding that no openings are formed in "light influencing material." The consistent description of only one type of "opening" in the specification suggest that the claims uniformly use the term "opening" consistent with that description. *Cf.* Slimfold Mfg. Co. v. Kinkead Indus., Inc., 810 F.2d 1113, 1116 (Fed.Cir.1987) (finding that lack of antecedent basis for "said collar" did not render claim indefinite where "specification shows only one collar and in only one place").

Forming an opening in the light influencing material even seems contrary to the teaching that light influencing material can be used to, "for example, color white light red as it passed therethrough." *Id.* That is, an opening in the light influencing material would seem to detract from the light influencing purpose of the light influencing material. The specification does not rule out the possibility that openings in light influencing material might be desirable to attain some "desired optical effect." *Id.* Still, the specification provides no clear guidance on forming openings in light influencing material that has been injected into openings formed in substantially opaque material. The practicability of forming openings in the light influencing material might thus be left to speculation.

The specification therefore suggests that "opening in the light influencing material" in Claim Element 12 may have been drafted in error and may have been intended to refer to an "opening in the substantially opaque material." Such an interpretation is consistent with identifying "an opening in the substantially opaque material" as the antecedent basis for "the opening" in Claim Element 12, at least if the words "in the light influencing material" in Claim Element 12 are set aside. The specification thus supports reading Claim Element 12 to refer to an "opening in the substantially opaque material." *Cf.* Slimfold, 810 F.2d at 1116. Still, unlike *Slimfold,* where the original claim at issue recited only one "collar" and did so without description in the claim itself, here Claim 26 of the '711 Patent on its face recites openings in two different types of material. Id. at 1114. The specification is thus suggestive but not conclusive as to the meaning of Claim Element 12.

DNP has also relied on the specification to support its proposal that "light influencing material" in Claim Element 12 could be properly re-written "light influencing *element*." *See* Dkt. No. 113, Ex. at 9; Dkt. No. 84 at 22. The specification refers to "light influencing element 10" as including a substrate 12, a layer of substantially opaque material 14, at least one opening 16 formed in the layer of substantially opaque material 14, and a light influencing material disposed in each opening 16. '711 Patent at 4:22-5:46. This language in the specification provides some guidance insofar as a person of ordinary skill could conclude that "light influencing material" in Claim Element 12 was intended to recite "light influencing element." Although probative, this evidence does not sufficiently support a redrafting of Claim 26, as discussed in more detail below.

No additional guidance from the prosecution history has been shown other than that Claim 26 was added during reissue prosecution. No extrinsic evidence has been presented on Claim Element 12, either, and the Court does not find that any extrinsic evidence would be helpful in interpreting Claim Element 12.

Based on the evidence above and the briefing by the parties, the Court considers four possible conclusions for interpreting "to form the opening in the light influencing material" in uncorrected Claim Element 12:

(1) "to form an opening in the light influencing material," where the use of "an opening" means that an opening may or may not be present in the light influencing material;

(2) "to form the opening in the light influencing material," where the use of "the opening" means that an opening must be present in the light influencing material;

(3) "to form the opening in the substantially opaque material"; FN5 or

FN5. Conclusion (3) can also include interpreting "light influencing material" to mean "light influencing element (*i.e.,* substantially opaque material)," as DNP proposes. Dkt. No. 113, Ex. at 9.

(4) Claim 26 is indefinite because Claim Element 12 is insolubly ambiguous.

Regarding conclusion (1), the Court considers other applicable claim construction doctrines, including the doctrine that generally no limitation of a claim should be deemed "mere surplusage," *i.e .,* a limitation should not be read out of a claim through construction. *See* Texas Instr. Inc. v. I.T.C., 988 F.2d 1165, 1171 (Fed.Cir.1993); Wright Med. Tech., Inc. v. Osteonics Corp., 122 F.3d 1440, 1444 (Fed.Cir.1997); Telemac Cellular Corp. v. Topp Telecom, Inc., 247 F.3d 1316 (Fed.Cir.2001). Claim Element 12 is a so-called "negative" FN6 limitation stating that "the method" of Claim 26 "does not use a photolithography process to form the opening" at issue. If "the opening" does not refer back to "an opening" recited earlier in Claim 26, then the "opening" in Claim Element 12 would be merely optional. In other words, such a reading would mean: (1) the light influencing material may or may not have an opening; but (2) if the light influencing material does have an opening, then that opening is not formed by a photolithography process. Thus, if "the opening" in Claim Element 12 is interpreted as "an opening" that may or may not exist, then Claim Element 12 seems hardly a limitation at all because the words "does not use a photolithographic process to form" modify an "opening" that is not strictly required by Claim 26. Claim Element 12 should be construed so as to limit Claim 26, so interpreting "the opening" to mean "an opening" should be disfavored, despite the issuance of a Certificate of Correction effecting such a change. Conclusion (1) is also disfavored as unsupported by a fair reading of the specification, as discussed with regard to conclusion (2), below.

FN6. ATI characterizes Claim Element 12 as a "negative" limitation because Claim Element 12 states a manner in which the method of Claim 26 is *not* performed. Dkt. No. 131 at 4-5.

Conclusion (2), which requires that some opening in the light influencing material must exist, is supported by the plain language of Claim Element 12. Conclusion (2) potentially avoids the "surplusage" problem of conclusion (1) because use of "the opening" implies the existence of at least one opening such that Claim Element 12 would be a positive limitation on the claim. *See* Halliburton Energy Servs., Inc. v. M-I LLC, 514 F.3d 1244, 1253 (Fed.Cir.2008) ("[W]e note that where a claim is ambiguous as to its scope we have adopted a narrowing construction when doing so would still serve the notice function of the claims.") (citation omitted). Further, the specification discloses "openings," "forming" openings, and "light influencing material," so a person of ordinary skill would have some basis to begin interpreting "the opening in the light influencing material." *See* '711 Patent at 5:1-46. Also, the discussion of prior art cited by ATI refers to selectively depositing color filtering material or selectively etching a filter stack. '711 Patent at 2:1-3:5; *see* "Fabrication of mosaic color filters by dry-etching dielectric stacks," cited by '711 Patent at 2:28-37, submitted at Dkt. No. 81, Ex. D, esp. at FIGS. 3 and 7. Still, the specification does not provide clear guidance on forming an opening in light influencing material that has been "inject[ed]" in an opening formed through substantially opaque material, as recited in Claim 26. Moreover, to whatever extent the

discussion of prior art discloses selectively removing color filtering material, such removal is not characterized by the specification as forming "openings" and would not be so interpreted upon a fair reading of the specification as a whole. *See* '771 Patent at 2:1-3:5. Instead, the specification discusses and illustrates forming openings in substantially opaque material. *See, e.g., id*. at 5:1-32. Conclusion (2) is therefore disfavored by a full and fair reading of the specification.

Regarding conclusion (3), construing "the opening" in Claim Element 12 to refer back to "an opening through said layer of substantially opaque material" would thus modify the method by which that opening can be formed. Conclusion (3) thus avoids "surplusage" and is therefore more favorable than conclusion (1). Conclusion (3) is also supported by the use of the definite article "the" in uncorrected Claim Element 12 because the only other recitation of an "opening" in Claim 26 is "an opening through said layer of substantially opaque material." Antecedent basis therefore weighs in favor of conclusion (3), as noted above. Nonetheless, construing "the opening in the light influencing material" to mean "the opening in the substantially opaque material" would be a significant redrafting of Claim 26.

To minimize redrafting, DNP also proposes construing "the opening in the light influencing material" to mean "the opening in the light influencing element," wherein the "light influencing element" includes substantially opaque material. Dkt. No. 113, Ex. at 9-10. Although DNP's proposal would only require substitution of one word, a person of ordinary skill reading the specification would recognize that "light influencing material" and "light influencing element" are substantially different. "Light influencing element" refers to a structure that can include a substrate 12, substantially opaque material 14, and openings 16. '711 Patent at 4:22-5:32. "Light influencing material," by contrast, can be "dye, ink ... or other color pigments" and can be "used in the openings of the light influencing element 10." '711 Patent at 5:33-46 and 6:48-63. Figures 1 and 2A-2C are consistent with this description, which refers to "FIGS. 2A, 2B, and 2C" as illustrating "a light influencing element fabricated *accord ing to the instant invention*." *Id*. at 5:47-50 and 6:20-47 (emphasis added). Because the specification explains that "light influencing material" can be used *in* a "light influencing element," a person of ordinary skill would *not* regard the term "light influencing material" as interchangeable with "light influencing element."

Although a person of skill might regard the use of "material" instead of "element" as an error correctable by informed interpretation, such interpretation would amount to judicially correcting Claim 26 rather than merely interpreting what the claim actually recites. Parker-Hannifin Corp. v. Baldwin Filters, Inc., No. 1:07-CV-1709, 2008 WL 5732941, at (N.D.Ohio July 3, 2008) (noting that where certificate of correction had been requested but had yet to issue, court could "act to correct an error in a patent by interpretation of the patent only if" the requirements of judicial correction were satisfied, including that "the correction is not subject to reasonable debate based on consideration of the claim language and the specification"). Correction of Claim Element 12 is subject to reasonable debate, as evidenced by the briefing and the discussion herein of multiple possible constructions of Claim Element 12. Judicial correction would therefore be inappropriate. Novo, 350 F.3d at 1354 (requiring for judicial correction that "correction is not subject to reasonable debate based on consideration of the claim language and the specification"); *see also* Energizer Holdings, Inc. v. I.T . C., 435 F.3d 1366 (Fed.Cir.2006) (noting that "neither the [International Trade] Commission nor the courts can rewrite claims to correct material errors"); *but see* Sargent-Welch Scientific Co. v. J/B Indus., Inc., 496 F.Supp. 972, 978 (N.D.Ill.1980) (correcting claim by substituting "rotor" for "motor" where claim was purportedly "meaningless" as written but where specification described similar subject matter in apparently correct form)

Conclusion (4) is that Claim 26 is insolubly ambiguous and therefore indefinite. Indefiniteness is a "legal

conclusion that is drawn from the court's performance of its duty as the construer of patent claims." Exxon Research & Eng'g Co. v. U.S., 265 F.3d 1371, 1376 (Fed.Cir.2001) (quotation omitted). Further, a finding of indefiniteness must overcome the statutory presumption of validity. 35 U.S.C. s. 282. That is, the "standard [for finding indefiniteness] is met where an accused infringer shows by clear and convincing evidence that a skilled artisan could not discern the boundaries of the claim based on the claim language, the specification, and the prosecution history, as well as her knowledge of the relevant art area." Halliburton, 514 F.3d at 1249-50. Nonetheless, conclusions (1), (2), and (3) each conflict with intrinsic evidence, legal doctrine, or both, as discussed above.

The fundamental problem in uncorrected Claim Element 12 is that "the opening in the light influencing material" lacks antecedent basis. Lack of antecedent basis can render a claim indefinite unless "the scope of a claim would be reasonably ascertainable by those skilled in the art." Bose Corp. v. JBL, Inc., 274 F.3d 1354, 1359 (Fed.Cir.2001); *see also* Messerschmidt v. U.S., 29 Fed. Cl. 1, 41-42 (1993) (finding "no alternative but to find all of the claims of the '560 patent invalid for indefiniteness," even after noting that "the Federal Circuit has explained that claims rendered initially indefinite for lack of antecedent basis may nevertheless remain definite when read in light of the specification[ ]" and examining claims and specification); Halliburton, 514 F.3d at 1249 ("[A] claim could be indefinite if a term does not have proper antecedent basis where such basis is not otherwise present by implication or the meaning is not reasonably ascertainable.") (citing Energizer, 435 F.3d at 1370-71); Manual of Patent Examining Procedure s. 2173.05(e) (8th ed., rev.7, July 2008) ("A claim is indefinite when it contains words or phrases whose meaning is unclear. The lack of clarity could arise where a claim refers to 'said lever' or 'the lever,' where the claim contains no earlier recitation or limitation of a lever and where it would be unclear as to what element the limitation was making reference."); In re Oetiker, Nos. 91-1181, 91-1221, 951 F.22d 1267, 1991 WL 275310 (Fed.Cir.1991) (affirming finding of indefiniteness by Board of Patent Appeals and Interferences based in part on lack of proper antecedent basis because "a person skilled in the art could not determine the metes and bounds of the claimed invention"); Slimfold Mfg. Co. v. Kinkead Indus., Inc., 810 F.2d 1113, 1116 (Fed.Cir.1987) (finding that lack of antecedent basis for "said collar" did not render claim indefinite where "specification shows only one collar and in only one place"); Parker-Hannifin, 2008 WL 5732941, at *8-9 (finding claim indefinite "for lack of antecedent basis for the claim term 'said one of said first and second end caps' "). Claim 26, in which Claim Element 12 appears, can therefore be found indefinite unless the meaning would be reasonably ascertainable to a person of ordinary skill in the art reading the patent as a whole.

The attempts in conclusions (1), (2), and (3) above to remedy lack of antecedent basis all involve contorted, unsatisfactory interpretations of the claims and the specification. This rises above an issue of construction "over which reasonable persons will disagree." Exxon, 265 F.3d at 1375. Unlike *Exxon,* the Court is not here presented with a question of degree, such as how to calculate a "numerical boundary" of a property or how to quantify a required time period. *See, e.g., id.* at 1377-79. Also, unlike *Exxon,* the ambiguity in Claim Element 12 does not exist despite efforts to be "reasonably precise in light of the subject matter." *Id.* at 1379 (finding that "period [of time] in question will vary with changes in the catalyst and the conditions in which the process is run."). Interpretation of the mechanical structure in Claim 26 does not involve unpredictable arts or uncertainty in scaling the size of the structure. This is also not a situation where "the fact that some experimentation may be necessary to determine the scope of the claims does not render the claims indefinite" provided that "no undue experimentation is required." *Id.* Instead, a person of ordinary skill attempting to understand Claim Element 12 would face "[a] zone of uncertainty," due to lack of proper antecedent basis, on such a fundamental question of interpretation as what "the opening" is actually formed in. *Id.* (quoting United Carbon Co. v. Binney & Smith Co., 317 U.S. 228, 236, 63 S.Ct. 165, 87 L.Ed. 232

(1942)). No amount of examination, experimentation, or calculation would resolve this deficiency. Instead, as described above, "reference to the specification renders the instant point of indefiniteness less, not more, ascertainable and thus obviates a remedy based on 'obvious error.' " Messerschmidt, 29 Fed. Cl. at 43-44. No antecedent basis is present by implication, and the meaning of Claim Element 12 would not be reasonably ascertainable to a person of ordinary skill. The foregoing evidence and analysis is sufficient to overcome the statutory presumption of validity. Uncorrected Claim Element 12 should therefore be found insolubly ambiguous, and Claim 26 of the '711 Patent should accordingly be found indefinite.

Corrected Claim Element 12 does not suffer from the same lack of antecedent basis as uncorrected Claim Element 12. The parties dispute as to corrected Claim Element 12 is whether or not "an opening" means that corrected Claim Element 12 limits Claim 26 by requiring that "an opening in the light influencing material" must exist. Corrected Claim Element 12 is a "wherein" clause reciting that "the method does not use a photolithography process to form" such an opening. This "wherein" clause thus imposes a so-called "negative" limitation, as noted above with regard to uncorrected Claim Element 12. A person of ordinary skill would therefore read corrected Claim Element 12 to mean that if "an opening in the light influencing material" exists, then "the method does not use a photolithography process to form" such an opening, as discussed above. Corrected Claim Element 12 should therefore be construed to mean "wherein the method does not use a photolithography process to form an opening in the light influencing material, if such an opening exists."

IV. CONCLUSION

For at least the reasons set forth above, ATI's objection (Dkt. No. 129), Sharp's objections (Dkt. No. 125), and DNP's objections (Dkt. No. 126) are hereby SUSTAINED IN PART and OVERRULED IN PART, and the Claim Construction Order (Dkt. No. 117) is hereby AFFIRMED IN PART and MODIFIED IN PART as follows:

As to the term "layer", the objections are hereby OVERRULED, and the Order is hereby AFFIRMED.

As to the term "said substantially opaque material being a black polyimide material" (Claim Element 2), the objections are hereby OVERRULED and the Order is hereby AFFIRMED.

As to the term "injecting(/disposing) a light influencing material ... in(to) said ... opening(s) (directly on the first substrate)" (Claim Element 4), the objections are hereby OVERRULED and the Order is hereby AFFIRMED.

As to the term "disposing a continuous layer of transparent, passivating material atop said layer of opaque material and said light influencing material" (Claim Element 7), the objections are hereby SUSTAINED IN PART and OVERRULED IN PART, and the Order is hereby MODIFIED as follows: Claim Element 7 is hereby construed to mean "placing a continuous, separate layer of transparent, passivating material atop the separate layer of opaque material and the light influencing material, where the passivating material is a material that performs at least two of the following functions: 1) levels the underlying filter and opaque layers to a continuous, flat surface to serve as a base upon which subsequent layers may be formed; 2) electrically insulates the light influencing element from any electrically conductive layers that may be disposed upon the passivating layer; and 3) provides a flat, level surface so as to assure a uniform thickness for any layer of liquid crystal material disposed thereon." The Order is otherwise hereby AFFIRMED.

As to the term "providing a second substantially transparent substrate member having a continuous layer of transparent conductive material disposed on one surface thereof, said second substrate being spacedly disposed from said first substrate and arranged so that the layer of transparent conductive material of said second substrate faces the layer of transparent conductive material of the first substrate" (Claim Element 9), the objections are hereby OVERRULED and the Order is hereby AFFIRMED. In addition, the order on Sharp's Request for Clarification is hereby MODIFIED so that Sharp's proposed additional limitation that "[w]ith respect to claim 26 of the '711 patent, when the substrates are assembled so that they face each other, the conductive layer on the second substrate is continuous" is hereby expressly rejected.

As to the term "patterning the continuous layer of transparent conductive material" (Claim Element 10), the objections are hereby SUSTAINED IN PART and OVERRULED IN PART, and the Order is hereby MODIFIED as follows: Claim Element 10 is hereby construed to mean "patterning the continuous layer of transparent conductive material on the second substrate, wherein the patterning is performed before the second substrate is spacedly disposed from said first substrate and arranged so that the layer of transparent conductive material of the second substrate faces the layer of transparent conductive material of the first substrate." The Order is otherwise hereby AFFIRMED.

As to the term "providing a second substantially transparent substrate member having a layer of a transparent conductive material disposed on one surface thereof, said second substrate being spacedly disposed from said first substrate and arranged so that the layer of transparent conductive material of the second substrate faces the layer of transparent conductive material of the first substrate" (Claim Element 11), the objections are hereby OVERRULED and the Order is hereby AFFIRMED.

As to the terms "wherein the method does not use a photolithography process to form the opening in the light influencing material" (uncorrected Claim Element 12) and "wherein the method does not use a photolithography process to form an opening in the light influencing material" (corrected Claim Element 12), the objections are hereby SUSTAINED IN PART and OVERRULED IN PART, and the Order is hereby MODIFIED as follows: Uncorrected Claim Element 12 is hereby found insolubly ambiguous, and Claim 26 is hereby found indefinite. Corrected Claim Element 12 is hereby construed to mean "wherein the method does not use a photolithography process to form an opening in the light influencing material, if such an opening exists." The portion of the Order finding that "this claim element does not describe 'new matter' " is hereby VACATED. The Order is otherwise hereby AFFIRMED.

As to any term to which a party objects but which is not addressed above, the objections are hereby OVERRULED and the Order is hereby AFFIRMED.

IT IS SO ORDERED.

E.D.Tex.,2009.
Advanced Technology Incubator, Inc. v. Sharp Corp.