

### I. INTRODUCTION

On January 28, 2014, the Court held a hearing for the purpose of construing disputed terms in the claims of United States Patent Nos. 5,724,177 (the "177 Patent"), 5,831,851 (the "851 Patent"), 7,372,610 (the "610 Patent"), and 8,243,357 (the "357 Patent"). Now, after consideration of the arguments and evidence presented by the parties, and the relevant portions of the record, the Court construes the terms as set forth below.

II. BACKGROUND

### A. Procedural History

Plaintiff SAGE Electrochromics, Inc. ("SAGE") filed this action against Defendant View,
Inc. ("View"), asserting infringement of SAGE's '177 Patent and '610 Patent. Complaint for
Patent Infringement and Injunctive Relief, ECF No. 1. View denied infringement in its answer
and counterclaimed for infringement of View's '851 Patent and '357 Patent. First Amended
Answer, Affirmative Defenses, and Counterclaims, ECF No. 34.

SAGE alleges that View's large-scale electrochromic dynamic glass product directly
infringe SAGE's patents. Joint Case Management Statement, ECF. No. 33, at 4:19-24. View
claims that SAGE is infringing and, with the anticipated commercial operation of SAGE's new

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facility, will continue to infringe View's patented electrochromic glass technology by engaging in the importation, manufacture, use, sale, and/or offer for sale of electrochromic glass products. <u>Id.</u> at 5:2-5.

Leybold Optics, GMBH ("Leybold"), which has indemnified SAGE against a patent infringement claim relating to the equipment identified in View's counterclaim and infringement contentions, has intervened in this action. <u>See</u> Order Granting Motion to Intervene, ECF No. 85. Leybold and SAGE have joined in filing joint claim construction brief. For simplicity of discussion, the Court generally refers to SAGE and Leybold's arguments and briefs simply as "SAGE's" arguments and briefs, except when referring to the construction of terms in the '851 Patent, in which Leybold specifically argued for SAGE and Leybold's proposed constructions. <u>See</u> Part III-B-3-4, infra.

SAGE and View have proposed competing constructions of terms in claims 4, 6, 12, 13, 14, 16, 17, 19 of the '177 Patent, claims 1, 18, 20 of the '610 Patent, claims 1 and 12 of the '357 Patent, and claim 1 of the '851 Patent.

#### B. Legal Standard

The construction of terms found in patent claims is a question of law to be determined by the Court. <u>Markman v. Westview Instruments, Inc.</u>, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc), <u>aff'd</u>, 517 U.S. 370 (1996). "[T]he interpretation to be given a term can only be determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim." <u>Phillips v. AWH Corp.</u>, 415 F.3d 1303, 1316 (Fed. Cir. 2005) (<u>quoting Renishaw PLC v. Marposs Societa' per Azioni</u>, 158 F.3d 1243, 1250 (Fed. Cir. 1998)).

Consequently, courts construe claims in the manner that "most naturally aligns with the patent's
description of the invention." <u>Id.</u>

The first step in claim construction is to look to the language of the claims themselves. "It is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude." <u>Phillips</u>, 415 F.3d at 1312 (<u>quoting Innova/Pure Water</u>, <u>Inc. v. Safari Water Filtration Sys., Inc.</u>, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). A disputed claim term should be construed in light of its "ordinary and customary meaning," which is "the meaning

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that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." Phillips, 415 F.3d at 1312. In some cases, the ordinary meaning of a disputed term to a person of skill in the art is readily apparent, and claim construction involves "little more than the application of the widely accepted meaning of commonly understood words." Id. at 1314. Claim construction may deviate from the ordinary and customary meaning of a disputed term only if (1) a patentee sets out a definition and 6 acts as his own lexicographer, or (2) the patentee disavows the full scope of a claim term either in the specification or during prosecution. Thorner v. Sony Computer Entm't Am. LLC, 669 F.3d 1362, 1365 (Fed. Cir. 2012).

Ordinary and customary meaning is not the same as a dictionary definition. "Properly viewed, the 'ordinary meaning' of a claim term is its meaning to the ordinary artisan after reading the entire patent. Yet heavy reliance on the dictionary divorced from the intrinsic evidence risks transforming the meaning of the claim term to the artisan into the meaning of the term in the abstract, out of its particular context, which is the specification." Id. at 1321. Typically, the specification "is the single best guide to the meaning of a disputed term." Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996). It is therefore "entirely appropriate for a court, when conducting claim construction, to rely heavily on the written description for guidance as to the meaning of claims." Phillips, 415 F.3d at 1315. However, while the specification may describe a preferred embodiment, the claims are not necessarily limited only to that embodiment. Id.

Finally, courts may consider extrinsic evidence in construing claims, such as "expert and 21 inventor testimony, dictionaries, and learned treatises." Markman, 52 F.3d at 980. Expert 22 23 testimony may be useful to "provide background on the technology at issue, to explain how an invention works, to ensure that the court's understanding of the technical aspects of the patent is 24 25 consistent with that of a person of skill in the art, or to establish that a particular term in the patent or the prior art has a particular meaning in the pertinent field." Phillips, 415 F.3d at 1318. 26 However, extrinsic evidence is "less reliable than the patent and its prosecution history in 27 28 determining how to read claim terms." Id. If intrinsic evidence mandates the definition of a term

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that is at odds with extrinsic evidence, courts must defer to the definition supplied by the former.

2 <u>Id.</u>

### C. Jurisdiction

Since this is an action "relating to patents," the Court has jurisdiction pursuant to U.S.C. § 1338(a).

## III. ANALYSIS

## A. Patent Numbers 5,724,177 and 7,372,610 (The SAGE Patents)

SAGE asserts claims in the '177 and '610 Patents. The parties have identified six disputed terms in these patents as most significant to resolving the parties' dispute.

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### 1. "Superstrate" (claims 6, 13, 14, and 16 of the '177 Patent)

11 12 13	Disputed Claim Term	SAGE's Proposed Construction	View's Proposed Construction
13 14 15	Superstrate	A layer of material that provides support and protection	A glass, ceramic, or plastic layer in surface contact with or adhered to the electrochromic device

Under View's initial proposed construction, a superstrate must consist of a glass, ceramic, or plastic layer. In its responsive claim construction brief, and at oral argument, View represented that there is no dispute over whether the accused products or prior art are made of such materials. Therefore, the superstrate's material is no longer at issue.

The parties continue to disagree about whether the claimed superstrate must be either in surface contact with, or be adhered to, an electrochromic device. View contends that this is required, while SAGE argues that the claimed superstrate merely must provide support and protection.

In the specification of the '177 Patent, each embodiment and drawing depicts a superstrate that is either in direct contact with, or adhered to, an electrochromic device. '177 Patent, at Figs. 3-11. Beyond this, however, View provides little support for its contention that a person of ordinary skill in the art reading the patent would understand the claimed superstrate to have this

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specific limitation. The configuration itself does not warrant construing the claimed term "superstrate,", since claims are not limited to a specific embodiment. Phillips, 415 F.3d at 1315.

Moreover, each of claims 6, 13, 14, and 16 recite the "open" transition phrase "comprising." "When a claim uses an 'open' transition phrase, its scope may cover devices that employ additional, unrecited elements." <u>AFG Indus., Inc. v. Cardinal IG Co., Inc.</u>, 239 F.3d 1239, 1245 (Fed. Cir. 2001). Here, the use of "comprising" in each claim allows for additional elements between the superstrate and the electrochromic device, and there are no claim limitations restricting the superstrate to being one that is in direct contact with or adhered to the electrochromic device. The specification states that "[a] layer of an adhesive may be used to bind the transparent superstrate to the electrochromic device," not that it must be, or that it is inherent in the claimed superstrate that it is. '177 Patent, at 4:37-39 (emphasis added).

From the intrinsic record, View's construction appears to be an unwarranted reading of limitations from the specification into the claims. <u>See, e.g., 3M Innovative Properties Co. v.</u> <u>Tredegar Corp.</u>, 725 F.3d 1315, 1321 (Fed. Cir. 2013) ("[L]imitations discussed in the specification may not be read into the claims"). SAGE's construction is drawn from language of the specification which indicates that the claimed superstrate "provides further support and protection." '177 Patent, 13:60.

The Court also considers the parties' submitted extrinsic evidence as a secondary source of support for the scope of the claim language. The parties have not submitted any technical dictionary evidence suggesting that those skilled in the art would understand the term "superstrate" in any specialized way. But there is some evidence regarding the scope of the claimed "superstrate" in the surrounding claim language, and the parties have submitted evidence from non-technical dictionaries to illuminate that language.

In each of claims 6, 13, 14, and 16, the superstrate is described as cooperating with the substrate "to sandwich" the electrochromic device. Both parties briefed the dictionary definition of "sandwich" in order to shed light on the proper construction of "superstrate." View pointed to the use of "sandwich" as a noun, but the claims use the words "to sandwich," as a verb. In the dictionary that View provided, "to sandwich" means "to insert or enclose between usu[ally] two

1	things of another quality or character." ECF No. 116-5, Merriam-Webster's Collegiate		
2	Dictionary, 11th ed. (2006). This definition is silent on whether there may be intervening		
3	elements between that which sandwiches and that which is sandwiched. Slices of bread would		
4	still be understood to "sandwich" the ham that lies between, even if intervening layers of cheese		
5	obstructed any direct contact between bread and meat. To the extent that extrinsic evidence is		
6	relevant to construction, it also supports SAGE's construction.		
7	The Court adopts SAGE's proposed construction.		
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9	2. "Transporting means" (claims 4, 6, 12, 13, 17, and 19 of the '177 Patent)		
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11	Disputed Claim Term		
12	Transporting means		
13	Joint Proposed Construction		
14	The parties agree that this term should be construed under 35 U.S.C. § 112(f). The parties also		
15	counterelectrode. The parties disagree as to the corresponding structure.		
16	SAGE's Proposed Structure View's Proposed Structure		
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	The parties agree that "lithium" is inserted here for claims 4 and 12 of the $\frac{177}{Patent}$ .		

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Structure for "lithium ion" terms: one or more	Structure for "lithium ion" terms: a layer made
<ul> <li>lithium ion-conducting materials, for example</li> <li>lithium silicate, lithium borosilicate, lithium aluminum silicate, lithium aluminum fluoride, or lithium aluminum fluoride,</li> <li>mixtures of lithium silicate and titanium or zirconium,</li> <li>lithium ion-conducting polymers,</li> <li>lithium based inorganic films, solid, and inorganic electrolytes, and their equivalents.</li> </ul>	<ul> <li>lithium silicate, lithium borosilicate, lithium aluminum silicate, lithium niobate, lithium niobate, lithium aluminum fluoride,</li> <li>mixtures of lithium silicate and titanium or zirconium, or a polymer material.</li> </ul>
Structure for terms not limited to lithium ions: [a single layer of] <sup>2</sup> one or more ion-conducting materials.	<ul> <li><u>Structure for terms not limited to lithium ions</u>:</li> <li>a [single] layer made from</li> <li>lithium silicate, lithium borosilicate, lithium aluminum silicate, lithium niobate, lithium nitride, lithium aluminum fluoride,</li> <li>tantalum pentoxide, silicon dioxide,</li> <li>mixtures of lithium silicate and titanium or zirconium, or</li> <li>a polymer material.</li> </ul>

There are three variations of the term "transportation means." The first variation transports lithium ions. '177 Patent, Claims 4, 12. The second variation transports any ions (not just lithium). <u>Id.</u> at Claims 6, 13. The third variation transports ions and consists of a single layer. <u>Id.</u> at Claims 17, 19. For each of these variations, the parties dispute whether the structure corresponding to the claimed function is broadly defined as an ion-conducting material, or if the structure must be one of the enumerated exemplary materials in the '177 Patent.

When determining the corresponding structure to a means-plus-function term, "the question is not what structures a person of ordinary skill in the art would know are capable of performing a given function, but what structures are specifically disclosed and tied to that function in the specification." <u>Saffran v. Johnson & Johnson</u>, 712 F.3d 549, 563 (Fed. Cir. 2013) <u>cert.</u> <u>denied</u>, \_\_\_\_\_U.S. \_\_\_\_, 134 S. Ct. 1023 (U.S. 2014). To determine whether a disclosed structure is linked to a claimed function, courts must consider the structure "from the perspective of one

<sup>&</sup>lt;sup>2</sup> The parties agree that the structure should be limited to a single layers for claims 17 and 19 of the '177 Patent.

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skilled in the art." <u>Intel Corp. v. VIA Techs., Inc.</u>, 319 F.3d 1357, 1365-66 (Fed. Cir. 2003). If the specification links a claimed function to a "class of structures [] identifiable by a person of ordinary skill in the art," the fact that the class is not limited to a single structure does not disqualify it from being the corresponding structure. <u>Linear Tech. Corp. v. Impala Linear Corp.</u>, 379 F.3d 1311, 1322 (Fed. Cir. 2004).

In <u>Linear Tech.</u>, the issue was whether a generic "pulse-width-modulation (PWM) circuit" corresponded to the claimed function of "varying the duty cycle." <u>Id.</u> at 1321. "Modulating the widths of pulses" is synonymous with "varying the duty cycle." But the Federal Circuit held that "[a]lthough the expression 'PWM circuit' does not reference a specific circuit structure, persons of skill in the art would understand that 'PWM circuit' references a discrete class of circuit structures that perform known functions." <u>Id.</u> at 1322.<sup>3</sup> In other words, a structure successfully linked to a function is not necessarily limited to a specific subset of enumerated examples, and it can be named by the function it performs, as long as the nomenclature is recognized by one of ordinary skill in the art. The same rule applies here.

The '177 Patent states that "[t]he transportation means desirably includes at least one layer formed from an ion-conducting material . . . ." '177 Patent, at 2:39-40. This statement links the claimed function and the disclosed structure. The remaining question is whether one skilled in the art would determine that this structure sufficiently performs the claimed function. The answer is yes. As SAGE's evidence convincingly demonstrates, a person of ordinary skill in the art at the time of invention would be able to identify specific implementations within the class of ion conductors, or ion-conducting material, that perform the claimed function. ECF No. 108-5,

Granqvist, <u>Handbook of Inorganic Electrochromic Materials</u> at 444-451 (Elsevier 1995).

A patentee cannot use a means-plus-function term to "encompass any conceivable means for performing the function." <u>Valmont Indus., Inc. v. Reinke Mfg. Co., Inc.</u>, 983 F.2d 1039, 1042 (Fed. Cir. 1993). The Court recognizes that this danger is present when a court confronts a "means for [BLANK]-ing" term, to which the corresponding structure is "a [BLANK]-er." But in

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<sup>&</sup>lt;sup>3</sup> View argues that the class of material identified by SAGE as performing the function does not qualify as sufficiently "discrete" to fall within the scope of this holding, but does not explain why.

this case, "ion-conducting material" is not merely the concept of "a material for conducting ions" rephrased. As the evidence shows, an ion conductor is a discrete class that performs the claimed function, as recognized by one of ordinary skill in the art. Under Linear Tech., this is sufficient.

In their briefs, and at oral argument, the parties disputed whether Saffran or Mettler-Toledo, Inc. v. B-TekScales, LLC, 671 F.3d 1291, 1296 (Fed. Cir. 2012), best controls this dispute. But in fact, both of these cases provide guidance on what constitutes sufficient linkage between a claimed function and a disclosed structure. See Saffran, 712 F.3d at 562 ("The ... patent does not, however, link any additional structures to the release function with sufficient specificity to satisfy § 112, ¶ 6."); Mettler-Toledo, 671 F.3d at 1296 (the structure the district court properly found linked to the function "was . . . the only structure disclosed in the specification," and the structure appellant argued should have been identified "[was] not linked to any claimed function"). But linkage is not at issue here. See Transcript of Proceedings, ECF No. 144, at 48:16-49:10. Both parties agree that there is a link from the function to elements disclosed in the specification. The issue is which of the linked structures are sufficient to perform the claimed function. On that question, Linear Tech. controls.

For these reasons, the Court agrees with SAGE that the claimed structure is not limited to the specific embodiments. However, SAGE's construction is also deficient in failing to include the term "layer" in all of its constructions. The structure in the specification that SAGE argues performs the claimed function specifically identifies a layer of ion-conducting material, not just ion-conducting material in any form. '177 Patent, at 2:39-40.

21 Because the corresponding structure is not restricted to specific embodiments but must 22 take the form of one or more layers, the Court adopts part of each party's proposed construction: 23 (1) the corresponding structure for "transporting means for transporting said lithium ions" in claims 4 and 12 is "at least a layer formed from ion-conducting materials," (2) the corresponding 24 structure for "transporting means for transporting ions" in claims 6 and 13 is "at least a layer 25 formed from ion-conducting materials," and (3) the corresponding structure for "transporting 26 means consisting of only a single layer for transporting ions" in claims 17 and 19 is "a single layer 27 28 formed from ion-conducting materials."

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1	<b>3.</b> "Enhancing means" (claims 4, 6,	12, 13, 17, and 19 of the '177 Patent)	
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3	Enhancing means		
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6 7	The parties agree that this term should be construed under 35 U.S.C. § 112(f). The parties also agree on the function: enhancing the transmission of radiation through said at least one of said electrically conductive layers. The parties disagree as to the corresponding structure.		
8 9	SAGE's Proposed Structure	View's Proposed Structure	
<ol> <li>10</li> <li>11</li> <li>12</li> <li>13</li> <li>14</li> <li>15</li> <li>16</li> <li>17</li> <li>18</li> <li>19</li> <li>20</li> <li>21</li> <li>22</li> <li>23</li> <li>24</li> </ol>	<u>Structure</u> : at least one optically transparent material, such as transparent oxides, transparent nitrides, or combinations thereof, having an appropriate index of refraction, and their equivalents.	<ul> <li><u>Structure</u>: one or more layers made of transparent oxides, transparent nitrides, a combination of transparent oxides and transparent nitrides, or a mixture of oxides of silicon and tin in any of the following layer configurations:</li> <li>1) a single layer adjacent to one of the conductive layers with an index of refraction that is about equal to the geometric mean of the indices of refraction of the substrate/superstrate and the conductive layer,</li> <li>2) a two-layer stack where a first layer is adjacent to one of the conductive layers and has an index of refraction that is adjacent the indices of refraction of the conductive layers and has an index of refraction that is significantly smaller than the index of refraction of the conductive layer and a second layer that is adjacent the substrate and has an index of refraction that is significantly larger than the index of refraction of the first layer,</li> <li>3) two or more layers between the substrate and one of the conductive layers wherein the indices of refraction of the indices of refraction of the substrate and one of the conductive layer,</li> </ul>	
26		<ul> <li>4) one layer having an index of refraction</li> <li>greater than 1.9 in surface contact with</li> </ul>	
27		one of the conductive layers or adhered	
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to the conductive layer, wherein the conductive layer consists of a conductive metal.

United States District Court Northern District of California To construe the term "enhancing means," the Court again determines "what structures are specifically disclosed and tied to [the claimed] function in the specification." <u>Saffran</u>, 712 F.3d at 563. The parties agree that the function for "enhancing means" is "enhancing the transmission of radiation through said at least one of said electrically conductive layers." They also agree that the issue is not one of linkage but about the sufficiency of the linked structure. <u>See</u> Transcript, 63:22-64:1. As in the "transporting means" term, SAGE would identify the structure as a genus of optically transparent material, while View would limit the linked structure to certain specific species within that genus that are also disclosed.

The specification of the '177 patent links the enhancing function to a structure by stating that "the enhancing means comprises at least one layer of an optically transparent material," '177 Patent at 2:31-32, and by describing selecting the optically transparent material based on a desired index of refraction. Id. at 9:47-64. "Whether the specification adequately sets forth structure corresponding to the claimed functions must be considered from the perspective of one skilled in the art." Intel Corp., 319 F.3d 1357 at 1365-66. As SAGE's evidence shows, one of ordinary skill in the art at the time of invention would be able to identify specific implementations within the class of optically transparent materials that could increase in the level of transmission. U.S. Patent No. 4,187,336, ECF 108-7, at 5:24-6:55; U.S Patent No. 4,308,316, ECF 108-87, at 5:26-6:50. The specific materials disclosed in the specification are described as "preferred" or "particularly preferred," rather than essential. '177 Patent, 9:48-51.

For essentially the same reasons as discussed in the "transporting means" construction, the Court will not limit the claimed structure as specifically suggested by View. But also for essentially the same reasons as discussed in the "transporting means" construction, the Court will include a "layer" as part of the linked structure. All of the citations SAGE provides to the specification identify a "layer" as the linked structure. <u>See</u> '177 Patent, 8:63-64, 9:1-19. Therefore, the Court construes the claim as follows: "at least one layer of at least one optically

1 transparent material, such as transparent oxides, transparent nitrides, or combinations thereof,

2 having an appropriate index of refraction, and their equivalents.

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3.	'ion-conductor [conducting] layer for conducting ions between said
	irst and second electrodes" (Claims 1, 18 and 20 of the '610 Patent)

5	Disputed Claim Term	SAGE's Proposed Construction	View's Proposed Construction
7 8 9	"ion-conductor [conducting] layer for conducting ions between said first and second electrodes"	One or more materials that conduct ions between the first and second electrodes <u>and that</u> <u>provide some electrical</u> insulation.	deposited material that conducts ions between the first and second electrodes while blocking electronic current

The parties dispute whether the material in the layer must be "deposited," and whether the material must "block electric current."

#### a. "While Blocking Electrical Current"

SAGE understood View's construction to require that the layer must block all electric current, and pointed out that one of the disclosed embodiments can allow at least some conductivity. '610 Patent at 7:30-31 ("preferably, the ion conductive layer 32 has low or no electronic conductivity") (emphasis added). In its Responsive Brief and at the hearing, View now maintains that its construction does not require that all electric current be blocked. Transcript, 71:16-18. At the hearing, SAGE offered a compromise construction recognizing that the layer "provide[s] some electrical insulation." Transcript, 71:1-12; <u>see also</u> SAGE Reply 14:1-6. At the hearing, View maintained that the layer must block "most or all" current, or block enough current to function as an electrochromic device. Transcript, 72:11, 73:20-74:6.

The Court agrees with both parties that a person of ordinary skill in the art would understand the claimed layer as necessarily providing at least some blocking of electrical current. The configuration discloses an embodiment in which "preferably, the ion conductive layer 32 has low or no electronic conductivity." '610 Patent at 7:30-31 (emphases added). At least in this embodiment of a five layer electrochromic device, this indicates that most current is blocked, but this condition is phrased as a preference rather than a requirement. In another portion of the description of the same embodiment, the specification states that "in order for such a five-layer

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electrochromic device to function correctly, it is necessary to have at least the following sequential layers: . . . an ion conductor layer ("IC") which serves as an electrolyte, allowing the passage of ions while blocking electronic current." '610 Patent at 5:55-62 (emphases added).<sup>4</sup> This passage indicates that insulation is more than a mere preference, but it does not use the language of "low or no" conductivity.

View does not maintain that the patent anywhere describes the specific amount of insulation required, and whether it is an amount more than "some." Transcript, 74:7-9. At the hearing, View's proposal was to leave it to experts to define to a jury what it means to "block electrical current." <u>Id.</u> 73:9-16. But an expert might opine that, outside the context of the Patent, the phrase means blocking of all current. The Court finds as a matter of law that the claimed layer cannot be construed to contain that requirement. To resolve any ambiguity about whether the claimed layer must block all current, the Court adopts SAGE's construction. The Court does not mean by this construction to rule out View's contention that the claimed layer must function as an electrochromic device.

#### b. "Deposited"

View argues that the specification "mandate[s]" that the layer must be "deposited material." But its citations demonstrate only that the description of one preferred embodiment refers to applying layers "sequentially," and later describes the material as being "deposited" onto the substrate. '610 Patent at 5:66-67, 9:54-62.

View claims only that "Sage has failed to identify any disclosure to the contrary in the
specification." View Resp. Br. 25:14-16. To begin with, this would not be fatal to SAGE's
construction, since claim language is not limited to the specifically identified embodiments.
<u>Thorner</u>, 669 F.3d at 1365.

But in this case, it does not even appear to be accurate. To the contrary, SAGE pointed out in its opening brief that the Patent discloses that other ways of creating an ion conductor layer

<sup>&</sup>lt;sup>4</sup> The fact that insulation is necessary for the function of the claimed layer is reinforced by references in the intrinsic and extrinsic record that go beyond the specific "five-layer electrochromic device" described in Figure 3. Id. at 6:3-4; see also '177 patent at 6:17-21.

"may be devised without departing from the spirit and scope of the present invention." See id. at 11:46-54. Given this language, and the fact that nothing but a specific embodiment suggests that the layer must be "deposited," the Court will not read View's limiting construction into the meaning of the term.

The Court does, however, agree with View that SAGE's construction could appear to read out of the claim language the requirement that the material be a "layer." The Court will construe the term as: "a layer of one or more materials that conduct ions between the first and second electrodes and that provide some electrical insulation."

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#### B. Patent Numbers 8,243,357 and 5,831,851 (the View Patents)

View asserts claims in the '357 and '851 Patents. The parties have identified two disputed 10 terms in each patent the construction of which are most significant to resolving the parties' 12 dispute.

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#### "Fewer than about 0.045 total visible defects per square centimeter in any region of electrochromic active area" (Claim 1 of '357 Patent)

Disputed Claim	SAGE's	View's
Term	Proposed Construction	Proposed Construction
Fewer than about 0.045 total visible defects per square centimeter in any region of electrochromic active area	Fewer than about 0.045 total defective-points or defective- areas per square centimeter in any region of electrochromic active area that manifest as visually discernible anomalies in normal use.	Fewer than about 0.045 total visible defects per square centimeter, as measured in the entire region of the window having electrochromically coated glass, where a "visible defect" is a defect of at least about 100 micrometers in size that produces a noticeable light point when the device is in the colored state

In this "disputed claim term," the parties actually identify disputes over the construction of two different terms: "visible defect" and "per square centimeter in any region of electrochromic active area."

#### "visible defect" a.

View draws its proposed construction from language in the specification which refers to a "visible pinhole" as having "a dimension of at least about 100 micrometers," '357 Patent 13:44-

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52, as well as language referring to defects as "bright spots" that appear when the device is otherwise darkened or colored. Id. at 1:46-49, 10:66-11:6, 14:65-15:1. View therefore proposes that the Court construe "visible defect" as "a defect of at least about 100 micrometers in size that produces a noticeable light point when the device is in the colored state."

SAGE, on the other hand, argues that its construction adopts specific definitions the patentee used to define the terms at issue. '357 Patent at 13:23-24 ("[a]s used herein, the term 'defect' refers to a defective point or region of an electrochromic device"); <u>see also id.</u> at 13:30-33 ("[a] defect will be manifest as visually discernible anomalies" and "[s]uch defects are referred to herein as 'visible' defects"). Therefore, Sage argues that "visible defects" should be construed as "defective-points or defective-areas . . . that manifest as visually discernible anomalies in normal use."

The Court agrees with SAGE that, where a patentee provides a specific definition for a term, that specific definition is more compelling intrinsic evidence of a term's construction than evidence drawn from a particular embodiment. A specialized definition reflects the patentee's concept of claim scope, while a specific embodiment may just describe a particular example. The patentee chose to define "visible defects" as those "that manifest as visually discernible anomalies in normal use," rather than to specify that a defect must be one that is visible specifically as a light point on an otherwise colored or darkened state. While other language from the specific situation, a claim is not limited to the particular embodiments. Therefore, the Court rejects those aspects of View's construction that limit the term to encompass only defects that create "a noticeable light point when the device is in the colored state."

However, the language View cites from the record regarding the defect being "at least about 100 micrometers in size" is not an illustration of a particular embodiment. At 5:37-38 and more forcefully at 13:51-52, the patentee is describing what it means to be "invisible to the naked eye," or "visible," and is stating that it means "at least about 100 micrometers." Strictly speaking, this portion of the specification is discussing only one specific type of defect: pinhole defects. But with regard to shorts, the specification describes the invention as isolating any defect causing a

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visible short to the point that, "to the naked eye the visible short will resemble only a visible pinhole." 13:50-51. The specification goes to note that "[t]ypically, the visible short-type defects are individually treated after fabrication to leave short-related pinholes as the only visible defects." 16:4-7 (emphasis added). The best read of the Patent as a whole is that no visible defects, pinhole or otherwise, are less than at least about 100 micrometers.

Without this construction, it would be up to a lay jury to determine what constitutes a "visually discernible" anomaly, and under what conditions. For example, jurors might conclude that, as long as the defect can be observed by a viewer whose eye is only an inch from the glass, the anomaly is "visually discernible," even if it is smaller than about 100 micrometers. In the context of the entire intrinsic record, it seems clear that the patentee claimed a narrower scope than this.

Therefore, the Court adopts the following construction of "visible defects": "defective points or regions of at least about 100 micrometers that manifest as visually discernible anomalies in normal use."

#### "per square centimeter in any region of electrochromic active b. area"

View construes this term as "per square centimeter, as measured in the entire region of the window having electrochromically coated glass." SAGE does not propose any construction, and objects to View's construction because it removes "any" from the claim language.

20While "electrochromic active area" is hardly an everyday term, it is not any more technical than many other terms for which View has proposed no construction. Claim construction "is not an obligatory exercise in redundancy." United States Surgical Corp. v. Ethicon, Inc., 103 F.3d 22 23 1554, 1568 (Fed. Cir. 1997). Therefore, there is no immediately apparent purpose to replacing "electrochromic active area" with View's proposed language: "the region of the window having electrochromically coated glass." 25

However, View does persuasively argue (albeit for the first time on Reply and at the 26 hearing) that SAGE's construction "would allow the counting of defects over any arbitrary portion 27 28 of the electrochromic window." View Reply 6:11-12. It seems inconsistent with the purpose of

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the invention for the area over which the average number of defects is measured to be limited to 2 any arbitrarily chosen region of the electrochromic active area. If "any region" means "any of the 3 regions" (i.e., at least one region), Claim 1 would encompass a window in which any squarecentimeter portion is defect-free, even while the remainder of the window tallies an average of 10 4 5 visible defects per square centimeter. In addition to being inconsistent with the purposes of the invention, this would overlap with prior art. Conversely, if "any region" means "any given 6 7 region" (i.e., every region), Claim 1 would not encompass a window in which the window as a whole tallies an .00001/cm<sup>2</sup> defect rate, but in which one particular square centimeter region has a 8 defect.<sup>5</sup> This would read an embodiment out of the claims, and is inconsistent with the averaging 9 concept denoted by the word "per." 10

But at the same time, the patentee chose the words "in any region of," and adopting View's construction would amount to effectively deleting these words from the claim. The claim term could easily read "fewer than about 0.045 total visible defects per square centimeter measured across the electrochromic active area," but those were not the terms the patentee chose. "Courts do not rewrite claims; instead, [they] give effect to the terms chosen by the patentee." Taurus IP, LLC v. DaimlerChrysler Corp., 726 F.3d 1306, 1321 (Fed. Cir. 2013) (quoting K-2 Corp. v. Salomon S.A., 191 F.3d 1356, 1364 (Fed. Cir. 1999)).

The Court is not at liberty to delete the words "any region of" from the claim language, by 18 19 construing the claim to measure defects across the entire electrochromically active area. But 20neither would it be appropriate to construe the claim to allow the measuring of defects over any arbitrarily chosen square centimeter, if it is possible to give effect to the terms chosen by the 22 patentee in some other way. The Court must determine how large a region the Patent envisions the defects/cm<sup>2</sup> calculation be applied against. 23

- 24 SAGE's proposal, made at the hearing, is to measure defects over a 22 square centimeter region. There is no such thing as ".045 of a defect" within the context of the patent; defects exist 25
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<sup>27</sup> <sup>5</sup> Since View takes the position that defects are not measured across any region of the window smaller than the window itself, the parties have not briefed the distinction between these two alternate constructions of "any," both of which seem facially plausible to the Court. 28

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in whole numbers. The .045 number is used as a way of measuring the result of an averaging process. Therefore, as a practical matter, the area over which defects are measured would have to be large enough to yield at least one whole-number defect. 22 square centimeters is the smallest possible region over which the .045 defects/cm<sup>2</sup> calculation can arithmetically be applied and yield a whole number.<sup>6</sup>

Again, however, if "any region" means "at least one 22 square centimeter region," this would seem inconsistent with the purposes of the invention, for the same reasons discussed supra. An otherwise defect-ridden window would fall within the claim as long as it had at least one 22square-centimeter-sized area without a defect. Alternatively, if "any region" means "any given 22 square centimeter region," even an otherwise flawless window would be outside Claim 1 if it had even one defect. This would write out the "per square centimeter" language from the claim as surely as View's construction would write out the "any region" language.

The specification provides better guidance. It explains that "less than about 0.045 defects per square centimeter" means "less than about 450 defects per square meter," indicating averaging the number of defects over a square meter. '357 Patent, at 15:66-16:20. This would yield a reasonable result under both constructions of the word "any." If "any" means "every," the window would need to achieve a better than .045 defect/cm<sup>2</sup> defect rate over any square-metersized slice chosen for analysis. And if "any" means "at least one," the claimed window would need to show that it contains at least one square-meter-sized area that achieves a defect rate better than about .045 per square centimeter. Given the support from the specification, the Court considers this to be the more likely plain and ordinary meaning of the claim language.

Therefore, the Court construes "per square centimeter in any region of electrochromic active area" as "per square centimeter, as measured in any square-meter region of the electrochromic active area." If an accused device has an electrochromic active area that is less than 1 square meter, the number of visible defects per square centimeter shall be measured in the entire region of the electrochromic active area. 26

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<sup>6</sup> To be precise, .045 divided by 1 is 22.22... (with an infinitely repeating decimal).

# 2. "Fewer than about 0.005 visible short-type defects per square centimeter of the electrochromic window" (Claim 12 of '357 Patent)

4 5	Disputed Claim	SAGE's	View's
6	Term	Proposed Construction	Proposed Construction
7	Fewer than about 0.005 visible short-	Fewer than about 0.005 defective- points or defective-areas per	Fewer than about 0.005 visible short- type defects per square centimeter of
8	type defects per	square centimeter of the	the electrochromic window, where a
9	square centimeter of the electrochromic	electrochromic window that manifest as visually discernible	"visible short-type defect" is a defect of at least about 100 micrometers in
10 11	window	anomalies in normal use caused by localized electronically conductive pathways spanning the ion	size that produces a noticeable light point when the device is in the colored states, and that is caused by
12		conducting layer	an electric short

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The first aspect of the parties' dispute relates to whether the "visible defects" discussed in Claim 12 must be more than about 100 micrometers, and whether they must be light points when the device is in the colored state. For the same reasons discussed in the Court's construction immediately supra, the Court agrees that a visible defect must be at least about 100 micrometers, but does not agree that they must be light points when the device is in the colored state.

18 The remaining dispute relates to whether the visible defects are "caused by localized 19 electronically conductive pathways spanning the ion conducting layer" or are merely "caused by 20 an electric short." Again, SAGE draws its construction from a definition specifically adopted by 21 the patentee in the patent itself: "[a] short is a localized electronically conductive pathway 22 spanning the ion conducting layer." 13:36-39. View contends that the patentee did "not clearly 23 set forth a definition that is different from the plain and ordinary meaning of 'short,'" but does not 24 explain why that is the case. View Reply 8:18-19. In any case, View's construction is no more 25 compelled by the intrinsic record than the specialized definition SAGE proposes, and therefore is 26 at least as plausible a depiction of the "plain and ordinary meaning" that a person of ordinary skill 27 in the art would read the patent as adopting. The Court construes "visible short-type defects" as 28 "defects caused by localized electronically conductive pathways spanning the ion conducting layer

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1 that manifest as visually discernible anomalies of at least about 100 micrometers in size in normal 2 use."

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#### "A plurality of control processors, each of the plurality of processors including a memory, being coupled to a subset of the plurality of chambers, and controlling processing in said subset of the plurality of chambers" (Claim 1 of '851 Patent)

6 7	Disputed Claim Term	Leybold's Proposed Construction	View's Proposed Construction
8 9	A plurality of control processors, each of the plurality of processors including a memory being coupled to	A plurality of control processors, each of the plurality of processors contains	No construction necessary, plain and ordinary meaning
)	a subset of the plurality of chambers, and controlling processing in said	a memory, is coupled to less than all of the chambers, and	ordinary meaning
l >	subset of the plurality of chambers	the processors control all processes for the chambers	

The parties have two disputes as to claim scope: first, as to the meaning of "subset," and second, as to whether the processors "control all processes" for the chambers.

#### "subset of the plurality of chambers" a.

Leybold proposes that the Court construe the term "subset of the plurality of chambers" to mean "less than all of the chambers." View argues that no construction is necessary, but in its opening brief it suggests that according to its view of claim scope, "the control processors are coupled to one or more chambers (i.e., a "subset")." View Opening Br. 22:8-9. Therefore, it appears that, at least after briefing, the parties had an O2 Micro<sup>7</sup> dispute over whether a "subset" must be "less than all" of the chambers, or whether it could be all of the chambers.

22 The configuration describes an embodiment in which each processor controls processes for 23 four of the twenty total chambers. '851 Patent at 10:11-13, 10:22-25. This does not appear to be a 24 mere illustration of the way the invention could be implemented; it appears to be an essential 25 component of the claimed invention. The configuration describes one of the main innovations of

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<sup>&</sup>lt;sup>7</sup> O2 Micro International v. Beyond Innovation Technology Co., 521 F.3d 1351 (Fed. Cir. 2008). In O2 Micro, the Federal Circuit held that "[w]hen the parties present a fundamental dispute regarding the scope of a claim term, it is the court's duty to resolve it." Id. at 1362.

the invention as the ability to have each processor "dedicated to control a particular portion of the machine, rather than a particular subsystem of the machine." Id. at 3:27-31 (emphasis added). This innovation is the ability to be able to add a chamber to the system without having to reconfigure all of the processors throughout the system. See id. at 2:47-57, 11:6-10, 31:67-32:6. In other words, a new chamber easily "swaps in," since any disruption can be contained within the specific subset of chambers that a given processor controls. Construing the "subset" to potentially include all of the chambers would be inconsistent with the purpose of the invention. It would also be contrary to principles of claim construction, since it would "render the disputed claim language mere surplusage." <u>Texas Instruments Inc. v. U.S. Int'l Trade Comm'n</u>, 988 F.2d 1165, 1171 (Fed. Cir. 1993). There would be no need to include the term "subset" if it meant any number of chambers, since that meaning is captured just as well if the claim were written as "being coupled to the chambers."

View did not address this aspect of the construction at all in its Reply Brief, and submitted at oral argument that they also agree that the term means "less than all." Transcript, 96:16-20. The Court construes "subset of the plurality of the chambers" as "less than all of the chambers."

# b. "controlling processing in said subset of the plurality of chambers"

The primary dispute as to claim scope is whether the processors control "all processes for the chambers," as Leybold contends.

The intended effect of Leybold's construction is not entirely clear from its chosen language, and it is similarly not clear from the briefing which processors Leybold contends must control all processes for which chambers. Leybold maintains in its brief that its construction is not meant to preclude the possibility that "a chamber has functions controlled by more than one processor." 20:3-5. But later, Leybold states that View is "incorrect[]" to conclude that the Patent "allows for the possibility of a given chamber having functions controlled by more than one processor." 25:12-14. The Court takes Leybold to argue that "the processors coupled to the subsets of chambers, collectively, control all processes in those chambers," since that it is the more dominant theme in its brief. 20:5-7.

The term "all" does not appear in the claim language. Leybold argues that since the claim language refers to "each of the plurality of processors . . . controlling processing in said subset of the plurality of chambers," it therefore follows that the processors collectively control all of the processing in the plurality of chambers. This is not a necessary deduction from this language, and the Court is not free to add a new limitation – "the processors control all processes" – that the patentee declined to place within the language of the claims. Moreover, in dependent claim 2, the patentee did use the term "all" to specify that a given plurality of processors communicates with all processors, making it even more improper to read the "all" limitation into claim 1.

Leybold also relies on language from the configuration, which describes Figure 5 by stating that "process control . . . [is] handled by one of four processors, B, C, D, or E." <u>Id.</u> at 10:11-13. This establishes only that the four processors handle process control, not that all processes are necessarily controlled by those processors. But even if the language were read as Leybold suggests, this phrase is a description of a specific embodiment. Leybold does not persuasively explain why the claim scope should be limited to that embodiment.<sup>8</sup>

#### c. Conclusion

The Court construes "subset of the plurality of the chambers" as "less than all of the chambers." Otherwise, the Court agrees with View's interpretation of claim scope and finds that the terms within this phrase need no further construction.

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<sup>21</sup> <sup>8</sup> Levbold quotes the undersigned as having noted that "it is . . . 'entirely appropriate for a court, when conducting claim construction, to rely heavily on the written description for guidance as to 22 the meaning of claims." Symantec Corp. v. Acronis, Inc., No. 12-cv-05331-JST, 2014 WL 230023, at \*2 (N.D. Cal. Jan. 21, 2014) (quoting Phillips, 415 F.3d at 1315). The next line of the 23 Court's order in that case is "while the specification may describe a preferred embodiment, the claims are not necessarily limited only to that embodiment." Id. For the first time at oral 24 argument, Leybold cited Verizon Servs, Corp. v. Vonage Holdings Corp., which held that "when a patent thus describes the features of the 'present invention' as a whole, this description limits the 25 scope of the invention." 503 F.3d 1295, 1308 (Fed. Cir. 2007) (quoting Honeywell Int'l, Inc. v. ITT Indus., 452 F.3d 1312, 1318–19 (Fed. Cir. 2006)) (emphasis added by the Court). The 26 specification of the '851 Patent does use the language "present invention." View did not have an opportunity to distinguish Verizon, but in any case the Court is not convinced that the 27 specification compels Leybold's construction, even were it limiting.

#### 4. "Each of said plurality of processors controls a portion of said subsystems as the plurality of substrates are processed" (Claim 1 of '851 Patent)

3 4	Disputed Claim Term	Leybold's Proposed Construction	View's Proposed Construction
5 6 7	"Each of said plurality of processors controls a portion of said subsystems as the plurality of substrates are processed"	Each of the plurality of processors controls the part of the pumping, transport, heating, and sputtering gas	No construction necessary, plain and ordinary meaning
8		control subsystems which pertains to its chambers	

This claim dispute is substantially similar to the previous one. Again, Leybold proposes that the Court construe the term to contain an exhaustive requirement; this time, one that requires that each plurality of processors controls the subsystems that pertains to its chambers.

View maintains that its construction is compelled by the claim language. Where claim 1 at 32:41-43 refers to the fact that "each of said plurality of processors controls a portion of said subsystems," it is referring to the "subsystems" described at 32:38-40. Leybold argues that since the claim language states that "each" processor controls a portion of the plural "subsystems," each of the processors must control a part of multiple subsystems, and that it must be the part of the subsystems that pertain to the processor's designated chamber. But it seems more plausible that where the claim language states that the plurality of processors controls a portion of said subsystems, this indicates only that each processor must control a portion of the subsystems en toto, not that every processor controls one or more of the many subsystems, as well as situations in which a specific processor controls specific local parts of all of the subsystems. Leybold's argument from the claim language does not compel the Court to add a limitation on the language that does not appear in the words of the claim.

Leybold's other arguments for this construction, are, like those discussed supra, requests that the Court limit the claim terms to a specific embodiment. The Court will adopt View's construction.

1	IV.	CONCLUSION
2		The Court, for the foregoing reasons, construes the terms as identified herein.
3		IT IS SO ORDERED.
4	Dated:	April 7, 2014
5		ION S TIGAR
6		United States District Judge
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