

United States District Court,
N.D. California.

SHARPER IMAGE CORPORATION, a Delaware corporation, and Zenion Industries, Inc., a California corporation,
Plaintiffs.

v.

HONEYWELL INTERNATIONAL, INC., a Delaware corporation, and Kaz, Inc., a New York corporation,
Defendants.

Sharper Image Corporation, a Delaware corporation,
Plaintiff.

v.

The May Department Stores Company, a Delaware corporation, Target Corporation, a Minnesota corporation, Ionic Pro, LLC, a Delaware corporation, Qwik Cook, Inc. d/b/a/ Home Trends, a New York corporation, Ideal Products, LLC, a Nevis (offshore) company, Sylmark, Inc., a Delaware corporation, Sylmark LLC, a Delaware corporation, Factories2u, LLC, a California corporation, and Chaim Mark Bess, an individual,
Defendants.

Sharper Image Corporation, a Delaware corporation, and Zenion Industries, Inc., a California corporation,
Plaintiffs.

v.

Neotec, Inc., a Nevada corporation, Indoor Purification Systems, Inc., a Utah corporation, and Asset Marketing Services, Inc. d/b/A Next Ten,
Defendants.

Nos. C 02-4860 CW, C 04-0529 CW, C 04-0824 CW, C 03-4426 CW

March 21, 2005.

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CLAIM CONSTRUCTION ORDER

CLAUDIA WILKEN, **District Judge.**

The parties captioned above dispute the meaning of several terms in the claims of U.S. Patent Nos. 6,713,026 (the '026 patent), 6,709,484 (the '484 patent) and 4,789,801 (the '801 patent). Each party requests that the Court adopt its proposed construction of the disputed terms. Claim construction hearings for each case were held on October 22, 2004. Having considered the parties' papers, the evidence cited therein and oral argument, the Court construes the disputed terms as set forth herein.

BACKGROUND

I. Sharper Image v. Kaz

Plaintiff Sharper Image Corporation is the assignee of the '026 and '484 patents, and Plaintiff Zenion Industries, Inc. is the assignee of the '801 patent. According to its Summary of the Present Invention, the '026 patent "provides an electrokinetic system for transporting and conditioning air without moving parts." The '026 patent is a continuation in part of U.S. Patent No. 6,176,977 (the '977 patent). The '484 patent is a continuation of the '977 patent and U.S. Patent No. 6,350,417 (the '417 patent). The '484 patent describes a mechanism that cleans the arrays of electrodes that partially compose the electro-kinetic air conditioning system described in the '026 patent. The '801 patent discloses technology that purports to reduce the amount of ozone and nitrogen oxide produced by electro-kinetic transducers.

Sharper Image Corporation and Zenion Industries, Inc. (collectively "Sharper Image") apply the technology described in the '026, '484 and '801 patents in their Ionic Breeze Air Purifier product line. Sharper Image and Zenion filed their original complaint on October 8, 2002, alleging that Defendants Kaz, Inc. (Kaz) and Honeywell International, Inc. (Honeywell) had infringed the '977 patent, the '417 patent and the '801 patent in developing their Environizer air purifier product line. *Sharper Image v. Honeywell & Kaz*, C 02-4860 CW. In February, 2004, Sharper Image filed a separate claim against Kaz alleging infringement of three additional patents, including the '026 and '484 patents. *Sharper Image v. Kaz*, C 04-0529 CW. On March 17, 2004, in C 02-4860 CW, the Court issued an order construing disputed claim terms and phrases in the '977, '417 and '801 patents (March 17 Order). The two lawsuits were consolidated on April 1, 2004, and Sharper Image filed its consolidated amended complaint later that month. Sharper Image and Kaz now dispute the meaning of several terms and phrases in the claims of the '026 and '484 patents. FN1

II. Sharper Image v. Ionic Pro

Sharper Image filed a complaint on February 27, 2004 alleging that Defendants The May Department Stores Company; Target Corporation; Ionic Pro, LLC; Qwik Cook, Inc. dba Home Trends; Ideal Products, LLC; Sylmark, Inc.; Sylmark, LLC; Factories2U, LLC; and Chaim Mark Bess (collectively "Ionic Pro") had infringed the '026 and '484 patents by making, using and selling the Ionic Pro air purifier product line. On March 19, 2004, the Court issued an order relating the case to C 02-4860 CW. On April 14, 2004, Sharper Image filed a second amended complaint that did not include The May Department Stores Company as a defendant.

III. Sharper Image v. IPS

This action involves the electro-kinetic transducer technology claimed in the '801 patent. Electro-kinetic transducers convert electrical energy into the fluid flow of air by, for example, using a high voltage generator to positively charge one set of electrodes and negatively charge another set of electrodes. Air molecules become positively charged by interacting with the positively charged electrodes and are subsequently attracted to the negatively charged electrodes, thus creating an electro-kinetic flow of air. The term "electro-kinetic" as it is used in the '801 patent was previously construed by this Court, in the March 17 Order in C 02-4860 CW, to mean "using electrical forces, without any mechanically moving components, to create an airflow through the device." March 17 Order at 8-9.

Sharper Image filed its original complaint in this case on September 30, 2003, alleging that Defendants Neotec, Inc., Indoor Purification Systems, Inc. (IPS) and Asset Marketing Services, Inc. had infringed the '801 patent as well as the '977 patent and U.S. Patent No. 6,163,098 (the '098 patent) by making and selling their own line of air purifier products. On June 10, 2004, Sharper Image filed an amended complaint that did not include Neotec, Inc. as a defendant. Sharper Image has since settled this action with Asset Marketing Service, Inc., and IPS and Sharper Image have settled the claims relating to the '977 and '098 patents; thus, the only patent in which claim terms are disputed in this case is the '801 patent.

LEGAL STANDARD

The interpretation of patent claims is a question of law to be decided by the Court. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 371-73, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). "In construing the claims, the analytical focus must begin and remain centered on the language of the claims themselves, for it is that language that the patentee chose to use to 'particularly point [] out and distinctly claim[] the subject matter which the patentee regards as his invention.'" *Interactive Gift Express, Inc. v. Compuserve, Inc.*, 256 F.3d 1323, 1331 (Fed.Cir.2001)(quoting 35 U.S.C. s. 112, para. 2).

Words in the claim are generally given their ordinary meaning. *Texas Digital Sys. Inc. v. Telegenix Inc.*, 308 F.3d 1193, 1201-02 (Fed.Cir.2002) ("The terms used in the claims bear a 'heavy presumption' that they mean what they say and have the ordinary meaning that would be attributed to those words by persons skilled in the relevant art."). "The ordinary meaning of a claim term may be determined by reviewing a variety of sources, including the claims themselves, other intrinsic evidence including the written description and the prosecution history, and dictionaries and treatises." *Teleflex, Inc. v. Ficoso N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed.Cir.2002) (internal citations omitted).

While words in the claim are generally given their ordinary meaning, the specification or prosecution history may indicate otherwise. *Vitronics Corp. v. Conceptoronic, Inc.*, 90 F.3d 1576, 1582 (Fed.Cir.1996). "[A] patentee may choose to be his own lexicographer and use terms in a manner other than their ordinary meaning, as long as the special definition is clearly stated in the patent specification or file history." *Id.* However, claims are not limited to the preferred embodiment described in the specification. *SRI Int'l v. Matsushita Elec. Corp. of Am.*, 775 F.2d 1107, 1121 (Fed.Cir.1985) (*en banc*, plurality opinion).

DISCUSSION FN2,FN3

I. The '026 Patent

A. Ion Producing System; An Ion Generating Unit

Sharper Image and Kaz dispute the meaning of the terms "ion producing system" and "ion generating unit" as used in claims 11 and 17 of the '026 patent.FN4 Sharper Image's proposed construction is "a device that creates ions." Kaz construes the terms to mean "a system for producing ions at a first electrode, which ions are attracted to a second electrode, thus electro-kinetically creating an airflow between the first and second electrodes without any mechanically moving components."

Sharper Image's proposed construction is too broad; the '026 patent describes a very specific type of system that produces ions. However, Kaz's proposed construction is potentially confusing because of a previous claim construction by this Court. The Court previously construed "electro-kinetic" to mean "using electrical forces, without any mechanically moving components, to create an airflow through the device." March 17 Order at 8-9. The phrase "without any mechanically moving components" in Kaz's proposed construction is therefore redundant. However, the portion of Kaz's proposed construction that reads "between the first and second electrodes" is helpful because the phrase "through the device" from the Court's construction of "electro-kinetic" is generic and not specific to the technology of the '026 patent.

The Court construes the terms "ion producing system" and "an ion generating unit" to mean "a system for producing ions at a first electrode, which ions are attracted to a second electrode, thus electro-kinetically creating an airflow between the first and second electrodes." Sharper Image states that it "can accept [Kaz's] interpretation as long as it is clear that where a device moves *at least some air* without mechanical components, it falls within the scope of these terms." Pl.'s Opening Br. at 5 (emphasis in original). The Court notes that its construction does not address the question of whether a system that creates airflow both electro-kinetically and mechanically can infringe the patents-in-suit.

B. Housing

Sharper Image, Kaz and Ionic Pro propose competing constructions for the term "housing" as used in claims 11, 17 and 18 of the '026 patent. Sharper Image construes the term to mean "main body." Kaz construes the term to mean "a structure that covers, protects, and supports the components of the ion producing," while Ionic Pro proposes "a cover."

"Main body" and "a cover" are overly broad, while "a structure that covers, protects, and supports the components of the ion-producing system" is not supported by the intrinsic evidence. However, the specification language upon which Sharper Image relies to derive its construction suggests a compromise. Sharper Image derives its construction from the specification phrase "a louvered or grilled *body* that houses an ionizer unit." '026 patent at 2:47-48 (emphasis added). The specification subsequently describes in detail what exactly comprises an ionizer unit. Kaz's central argument is that any construction of "housing" should make it clear that the "housing" contains all components of the ion producing system. The specification language relied upon by Sharper Image does that. To avoid using the disputed term in its own construction, the Court construes "housing" to mean "an enclosure that contains an ionizer unit."

C. Emitter Electrode FN5

Sharper Image and Kaz dispute the meaning of the term "emitter electrode" as used in claims 11, 17 and 18 of the '026 patent and claims 29 and 32 of the '484 patent.FN6 Sharper Image construes the term to mean "electrically conductive surface for giving off ions." Kaz's proposed construction is "an electrode for producing ions which are attracted to a collector electrode," although Kaz is willing to forgo the phrase "which are attracted to a collector electrode" in its construction.

In *Markman*, the Supreme Court recognized "the importance of uniformity in the treatment of a given patent as an independent reason to allocate all issues of construction to the court." 517 U.S. at 390. The Supreme Court assigned the task of claim construction to courts rather than to juries in order to ensure the uniformity necessary for patents to provide public notice of inventions, encourage innovation, and to protect the property rights of patentees. *Id.* As an extension, *Markman* encouraged the application of a given court's previous claim construction to new and independent infringement defendants in the interest of "intra-jurisdictional uniformity." *Id.* at 391. This Court previously rejected Sharper Image's attempt to substitute the term "surfaces" for the term "electrodes" in construing the '801, '977 and '417 patents, ruling that "electrode" should instead be given its plain and ordinary meaning. March 17 Order at 10-11. Substituting the two terms is similarly inappropriate here. Using "electrode" instead of "surface" in Sharper Image's construction and shortening Kaz's construction to exclude the conceded phrase, the parties' constructions are almost identical ("electrode for giving off ions" and "an electrode for producing ions"). Because "giving off" describes "emitting" better than does "producing," the Court construes the term "emitter electrode" to mean "electrode for giving off ions."

D. Collector Electrode

Sharper Image and Kaz dispute the meaning of the term "collector electrode" as used in claims 11, 17 and 18 of the '026 patent.FN7 Sharper Image's proposed construction is "electrically conductive surface for collecting ions and airborne particles." Kaz construes the term to mean "an electrode that is removable from the housing and that receives ions produced from an emitter electrode," although it is willing to drop the phrase "produced from an emitter electrode" from its construction.

Again, it is improper to substitute the word "surface" for the word "electrode" because this Court previously ruled that "electrode" should be given its plain and ordinary meaning. The remaining issues in dispute are (1) Sharper Image's phrase "and airborne particles" and (2) Kaz's phrase "removable from the housing." First, it is clear that the '026 patent contemplates that the collector electrode will collect both ions and other airborne particles. In the Summary of the Present Invention, the specification states, "The dust and other particulate matter attaches electrostatically to the second array (or collector) electrodes, and the output air is substantially clean of such particulate matter." '026 Patent at 3:13-15. Among the central purposes of the '026 patent is to invent a method to filter circulated air; thus, the term "collector electrode" should be construed as an electrode that collects airborne particles as well as ions.

As to the second remaining issue, the term "collector electrode" is preceded by the word "removable" in claims 17 and 18 of the '026 patent (although not in claim 11). Both parties agree that "collector electrode" should be construed identically in all three claims. Therefore, adding the phrase "removable from housing" to the construction of the term "collector electrode" does not assist in interpreting the claim language because doing so would be expressly redundant in claims 17 and 18, and implicitly so in claim 11, which describes the collector electrode as being vertical "when in a resting position." '026 Patent at 13:3. The Court therefore construes the term "collector electrode" to mean "electrode that receives ions and airborne particles."

E. A Second Removable Collector Electrode; A Removable Collector Electrode

Sharper Image, Kaz and Ionic Pro dispute the meaning of the terms "a second removable collector electrode" and "a removable collector electrode" as used in claims 17 and 18 of the '026 patent. Because the Court has already construed the term "collector electrode," there is no need to construe the term "removable

collector electrode." The term "removable" is given its plain and ordinary meaning.

F. Resting Position

The parties no longer dispute the meaning of the term "resting position" as used in claims 11, 17 and 18 of the '026 patent. The parties agree that the term should be construed as meaning "stationary position."

G. Vertically Lifting Said Collector Electrode

The parties offer competing constructions of the phrase "vertically lifting said collector electrode" as used in claims 11, 17 and 18 of the '026 patent. Sharper Image construes the phrase to mean "removing in a vertical direction the surface for collecting ions and airborne particles such that the emitter electrode remains in the housing." Kaz construes the phrase to mean "raising the collector electrode in an upward direction," while Ionic Pro proposes "lifting the surface for collecting ions and airborne particles in a vertical direction."

Sharper Image's phrase "such that the emitter electrode remains in the housing" does not aid in interpreting the claim phrase. The phrase "vertically lifting said collector electrode" is construed as meaning "removing the collector electrode in a vertical direction."

H. Vertically Returnable with the Assistance of Gravity; Such that Gravity Will Assist with Return of Said Second Removable Collector Electrode

Sharper Image and Kaz now agree that these disputed phrases should be construed as meaning "able to be replaced in a vertical direction while under the influence of gravity." However, Ionic Pro disputes that construction and proposes as follows: "[Can be returned when it is positioned 90 (deg.) to the horizon.] As a result of the presence of gravity, less energy is required to return the collector electrode to its resting position than in the absence of gravity. In other words, the force in the downward direction attributable to gravity is greater than the vertical component of the frictional force."

The construction agreed upon by Sharper Image and Kaz is not helpful because everything on earth is "under the influence of gravity" to some extent. Ionic Pro's construction is unnecessarily long and confusing. The Court therefore construes the disputed phrases to mean "replaceable in a sufficiently upright position to benefit from the force of gravity," which Sharper Image proposed in its reply claim construction brief in C 04-0824 CW.

I. Opening in an Upper/Top Portion of Said Housing

The parties offer competing constructions of the term "opening in an upper/top portion of said housing" as used in claims 11, 17 and 18 of the '026 patent. Sharper Image construes the term to mean "aperture in an upper part of the main body," while Ionic Pro proposes "a hole in the top of the cover." Kaz proposes the following construction: "an opening through the uppermost surface of the housing as presented to the user during normal operation of the system, through which opening the collector electrode can be vertically removed and returned by the user without having to open the housing."

Kaz's construction improperly imports limitations from the specification into the claim language. The term "opening in an upper/top portion of said housing" is construed to mean "aperture in an upper part of the housing."

J. Ion Producing Air Conditioning System

The parties dispute the meaning of the term "ion producing air conditioning system" as used in claim 18 of the '026 patent. Sharper Image construes the term to mean "a system that creates ions and treats air." Kaz argues that the term should be construed as having the same meaning as the terms "ion producing system" and "an ion generating unit," while Ionic Pro proposes "a device that generates and releases electrically charged particles into the air."

Because the term "ion producing air conditioning program" is used almost identically in claim 18 as the terms "ion producing system" and "ion generating unit" are used in claims 11 and 17, the Court gives the term an identical construction: "a system for producing ions at a first electrode, which ions are attracted to a second electrode, thus electro-kinetically creating an airflow between the first and second electrodes."

K. Vertically Elongated

Sharper Image and Ionic Pro dispute the meaning of the term "vertically elongated" as it modifies the term "housing" in claims 11 and 18 and the term "collector electrode" in claim 11 of the '026 patent.FN8 Sharper Image construes the term in both instances to mean "having a length in a vertical direction greater than the width." Ionic Pro's proposed constructions are "a housing extended in at least a vertical direction" and "collector electrode is extended in the vertical direction."

The parties both rely on the Webster's Dictionary definitions of "elongate" to support their respective constructions. Ionic Pro argues that its construction of "vertically elongated" comports more closely with the dictionary's primary definition of "elongate," which is "to increase the length of: stretch out: lengthen," and which includes as a synonym "extend." However, Sharper Image correctly points out that the definition upon which Ionic Pro relies is the definition of the *verb* elongate, while the primary definition of the *adjective* elongate includes "having a form notably long in comparison to its width."

Ionic Pro also argues that the preferred embodiment should not be understood to limit the claims. However, that is not what Sharper Image's proposed construction does. In this case, the claims themselves describe both "vertically elongated" housing and collector electrodes; thus, no limitation must be imported from the specification in order to construe the term. The Court construes the term "vertically elongated" as it modifies both "housing" and "collector electrode" to mean "having a length in a vertical direction greater than the width."

L. Elongated Along a Direction of Elongation of Said Vertically Elongated Housing

Sharper Image and Ionic Pro dispute the meaning of the phrase "elongated along a direction of elongation of said vertically elongated housing" as used to describe the collector electrode in claims 17 and 18 of the '026 patent. Sharper Image's proposed construction is "positioned in the same direction as the vertical housing," while Ionic Pro construes the phrase to mean "collector electrode is extended in a vertical direction, the same direction of extension as the housing."

Sharper Image's proposed construction substitutes the word "positioned" for the word "elongated" in the claim phrase, while Ionic Pro replaces "elongated" with the word "extended." Neither is appropriate, especially considering that neither proposed construction conforms to the Webster's Dictionary definitions of "elongate" that both parties rely upon. Nevertheless, the disputed phrase is confusing and requires construction.

It stands to reason that an object that is "elongated along a direction of elongation" of another object that is vertically elongated must itself be vertically elongated. As used in claims 17 and 18 of the '026 patent, "elongated along a direction of elongation" means nothing more than "vertically elongated." Once the collector electrode is described as "vertically elongated," it is also unnecessary to give meaning to its elongation by comparing it to another object's elongation. The portion of the disputed phrase that reads "along a direction of elongation of said vertically elongated housing" becomes entirely superfluous. The Court therefore construes the phrase "elongated along a direction of elongation of said vertically elongated housing" as it describes the term "collector electrode" to mean simply "vertically elongated."

M. Vertically Removable

Sharper Image and Ionic Pro dispute the meaning of the term "vertically removable" as it is used to describe "collector electrode" in claims 17 and 18 of the '026 patent. Sharper Image construes the term to mean "able to be taken out in a vertical direction," while Ionic Pro proposes "the collector electrode can be ejected in a direction of 90 (deg.) from the horizon."

In order to give effect to its plain meaning, and in order to construe the term in accordance with its construction of the term "vertically lifting said collector electrode," the Court construes "vertically removable" to mean "removable in a vertical direction ."

N. [Handle] Accessible Through Said Opening

Sharper Image and Ionic Pro dispute the meaning of the phrase "accessible through said opening" as used to describe a handle in claim 17 of the '026 patent. Sharper Image construes the phrase to mean "able to be reached via the aperture," while Ionic Pro's proposed construction is "a structural extension that allows user to grasp the structure."

Ionic Pro's construction defines only the word "handle," while failing to incorporate the remaining qualifying language in the disputed term. Sharper Image's construction also fails to give meaning to the entire disputed claim term. The Court construes the term "[handle] accessible through said opening" to mean "structural extension that allows the user to grasp the structure through said opening."

O. Vertically Returnable Through Said Opening

Sharper Image and Ionic Pro dispute the meaning of the phrase "vertically returnable through said opening" as used in claims 17 and 18 of the '026 patent.FN9 Sharper Image construes the phrase to mean "able to be replaced via the aperture in a vertical direction" while Ionic Pro proposes "the second electrode can be returned through the hole on top of the cover when the second electrode is positioned 90 (deg.) to the horizon."

In order to remain consistent with its construction of "vertically returnable with the assistance of gravity" and "vertically removable," the Court construes the term "vertically returnable through said opening" to mean "able to be replaced in a vertical direction through said opening."

II. The '484 Patent

A. Electrode Cleaning Mechanism

Sharper Image, Kaz and Ionic Pro dispute the meaning of the term "electrode cleaning mechanism" as used in claims 29 and 32 of the '484 patent. Kaz and Ionic Pro argue that the term is a "means-plus-function" element governed by Title 35 U.S.C. section 112(6). Pursuant to section 112(6), Kaz construes the term to mean "a small, generally round member having a hole formed within the member that completely surrounds a wire-shaped electrode, such that the inner walls of the hole frictionally remove debris as the member moves along the electrode's surface." Ionic Pro proposes the following: "Flexible sheets of insulating material each having a slot therein to receive an electrode or beads having a hole therein for receiving the electrode." Sharper Image argues that "electrode cleaning mechanism" is not a means-plus-function term and should be construed as meaning "a device for removing deposits from the surface for giving off ions."

A means-plus-function claim element generally requires the use of the term "means." *Micro Chem., Inc. v. Great Plains Chem. Co., Inc.*, 194 F.3d 1250, 1257 (Fed.Cir.1999). If the word "means" does not appear in a claim element, a presumption arises that section 112(6) does not apply. *Personalized Media Communications, LLC v. ITC*, 161 F.3d 696, 703-04 (Fed.Cir.1998). That presumption may be rebutted if no sufficiently definite structure is recited in the claim. *Mas-Hamilton Group v. LaGard, Inc.*, 156 F.3d 1206, 1214 (Fed.Cir.1998).

Here, neither the term "electrode cleaning mechanism" nor the claims in which it is found use the word "means"; therefore, Kaz and Ionic Pro must rebut the presumption against section 112(6)'s applicability by demonstrating that the term "electrode cleaning mechanism" is entirely functional and the claims do not recite sufficient structure. However, the presumption is not easily rebutted. According to a recent Federal Circuit opinion, "while it is true that the term [] does not bring to mind a particular structure, that point is not dispositive. What is important is whether the term is one that is understood to describe structure, as opposed to a term that is simply a nonce word or a verbal construct that is not recognized as the name of structure and is simply a substitute for the term 'means for.'" *Lighting World, Inc. v. Birchwood Lighting, Inc.*, 382 F.3d 1354, 1360 (Fed.Cir.2004). The court further ruled that the fact that a structure is described using functional terms is not by itself dispositive in section 112(6) analysis. *Id.* at 1359-60.

Here, "electrode cleaning mechanism" is clearly described using functional terms. However, read in the context of the relevant claims, the term connotes structure. The '484 patent claims a "method for cleaning an emitter electrode with an electrode cleaning mechanism ... so that the electrode cleaning mechanism travels, from an initial position, along the emitter electrode and frictionally removes debris from the emitter electrode." '484 Patent at 18:66-19:7. Again, a claim need not describe a particular structure; all that is required is that the claim describe structure generally. *Lighting World*, 382 F.3d at 1360.

Kaz cites *Toro Co. v. Deere & Co.*, 355 F.3d 1313 (Fed.Cir.2004), in support of its argument that "electrode cleaning mechanism" should be construed using means-plus-function analysis. In that case, the term "control mechanism" triggered section 112(6) analysis. However, the *Toro* court ruled that the patent claim clause at issue triggered section 112(6) analysis because it expressly used the word "means" several times, and the plaintiff acknowledged that its claim was written in meansplus-function format. *Id.* at 1323-24. *Toro* is therefore not analogous; Sharper Image has not expressly invoked section 112(6) by using the word "means." Furthermore, the '484 patent describes "electrode cleaning mechanism" using sufficient structure to avoid section 112(6) applicability.

However, the Court cannot accept Sharper Image's proposed construction in its entirety because it incorporates Sharper Image's proposed construction for "emitter electrode," which the Court has already rejected. The term "electrode cleaning mechanism" is therefore construed to mean "a device for removing

deposits from the emitter electrode."

B. Base Adapted to Support the Housing in an Upright Position

Sharper Image and Kaz dispute the meaning of the phrase "base adapted to support the housing in an upright position" as used in claims 29 and 32 of the '484 patent.FN10 Kaz argues that the phrase should be construed using means-plus-function analysis, and proposes the following construction: "a generally round, flat attachment, radially extending from the lower-most surface of the housing and having a diameter that is substantially larger than that of the housing, that attachment configured to bear the weight of the housing and hold the housing in an upright and vertical position." Sharper Image argues that the phrase is not a means-plus-function element and should be construed as follows: "bottom structure for holding up the main body in a vertical orientation."

Neither the phrase itself nor the claims in which it is found contain the word "means." Kaz must therefore rebut the presumption that section 112(6) does not apply by demonstrating that no sufficient structure is recited in the claim. The Court finds that the phrase "base adapted to support the housing in an upright position" connotes sufficient structure to deny Kaz this argument. The Court adopts the construction agreed upon by Sharper Image and Ionic Pro in C 04-0824 CW, which more closely resembles the phrase's plain and ordinary meaning. "Base adapted to support the housing in an upright position" is construed to mean "bottom structure for holding up the housing in a vertical orientation."

C. Initial Position

Sharper Image, Kaz and Ionic Pro dispute the meaning of the term "initial position" as used in claims 29 and 32 of the '484 patent. The Court rules that "initial position" does not require construction and is given its plain and ordinary meaning.

D. Elongated Housing

Sharper Image and Ionic Pro dispute the meaning of the term "elongated housing" as used in claims 29 and 32 of the '484 patent. Sharper Image's proposed construction is "a main body that has a length greater than its width," while Ionic Pro construes the term to mean "a cover extended in at least one direction."

Using the Webster's Dictionary definition of the adjective "elongate," the Court construed the term "vertically elongated" to mean "having a length in a vertical direction greater than the width." That dictionary definition is also appropriate here. The Court construes the term "elongated housing" to mean "housing having a length greater than its width."

E. Rotating the Housing ... so that the Electrode Cleaning Mechanism Travels Back to the Initial Position

Sharper Image and Ionic Pro dispute the meaning of the phrase "rotating the housing ... so that the electrode cleaning mechanism travels back to the initial position" as used in claims 29 and 32 of the '484 patent. Sharper Image construes the phrase to mean "turning the main body ... such that the device for removing deposits returns to its beginning location." Ionic Pro's proposed construction is "turning the housing to cause the flexible sheets of insulating material or beads to return to the initial position."

Neither party's construction assists in interpreting the claim language. Read in the context of the claims

themselves, the disputed phrase is straightforward and does not require construction by this Court. The phrase "rotating the housing ... so that the electrode cleaning mechanism travels back to the initial position" is given its plain and ordinary meaning.

III. The '801 Patent

Claim 24 of the '801 patent reads as follows:

A diode-type electrokinetic transducer, comprising: a first *array of ion emitting surfaces*; a second *array of ion receiving surfaces*, the cross sections of the ion receiving *surfaces* of the second array are larger in area than the cross sections of the ion emitting *surfaces* of the first array; *the distance between any two adjacent ion emitting surfaces* in the first array being *substantially equal to the distance between any two adjacent ion receiving surfaces* in said second array; the ion emitting and ion receiving *surfaces* of the respective first and second arrays *directly confronting* each other across a space containing ambient air such that any ion emitting *surface* in the first array is substantially equidistant from the closest two ion receiving *surfaces* in the second array; and, a voltage pulse generator coupled between the first and second array for generating a signal having *voltage pulses of a single polarity*, the generator biasing the signal so that the absolute value of the voltage of said signal stays above a predetermined minimum value; wherein upon energizing the arrays, air ions flow from the first array past the second array and air-borne particulates are precipitated onto an ion receiving *surface* of the second array.

A. Array of Ion Receiving Surfaces

Sharper Image and IPS dispute the meaning of the term "array of ion receiving surfaces" as used in claim 24 of the '801 patent. Sharper Image construes the term to mean "an arrangement of electrically conductive bodies for collecting ions and airborne particles," while IPS's proposed construction is "an arrangement of each of the conductive surfaces coupled to a common voltage supply to receive ions."

In its March 17 Order in C 02-4860 CW, this Court construed the term "a second array of ion receiving surfaces" as used in claim 24 of the '801 patent. In the interest of the uniformity that is encouraged by the Supreme Court in *Markman*, the Court adopts that construction here. The Court construes the term "array of ion receiving surfaces" to mean "an arrangement of surfaces for collecting ions and airborne particles."

B. Array of Ion Emitting Surfaces

Sharper Image and IPS dispute the meaning of the term "array of ion emitting surfaces" as used in claim 24 of the '801 patent. Sharper Image construes the term to mean "an arrangement of electrically conductive bodies for giving off ions," while IPS construes the term to mean "an arrangement of each of the conductive surfaces coupled to a common voltage supply to emit ions."

The Court's construction of the term "array of ion receiving surfaces" informs the construction of "array of ion emitting surfaces." The Court construes the disputed term to mean "an arrangement of surfaces for giving off ions."

C. Surface

Sharper Image and IPS dispute the meaning of the term "surface" as it is used in claim 24 of the '801 patent. IPS construes the term to mean "the exterior of an object," and Sharper Image argues that the term need not

be construed and should instead be given its plain and ordinary meaning.

The term "surface" does not require construction by the Court and is given its plain and ordinary meaning.

D. The Distance

Sharper Image and IPS dispute the meaning of the term "the distance" as it is used in claim 24 of the '801 patent. Sharper Image construes the term to mean "length of space," while IPS's proposed construction is "requires that every two adjacent surfaces in the same array be equidistant from one another so there is the same distance between any two adjacent surfaces in the same array."

Not only is IPS's proposed construction unnecessarily long and confusing, it uses the disputed claim term in the construction itself. Sharper Image's proposition that "distance" means "length of space" is logical and gives that claim term its plain and ordinary meaning. However, because claim 24 contemplates one particular "distance" that separates adjacent surfaces, Sharper Image cannot read the word "the" out of the claim limitation. The Court construes "the distance" to mean "the length of space."

E. Any

Sharper Image and IPS dispute the meaning of the term "any" as it is used in claim 24 of the '801 patent. Sharper Image's proposed construction is "any," while IPS construes the term to mean "every."

In claim 24, "any" is used as follows: "The distance between *any* two adjacent" surfaces in the electrode arrays. Because "the distance" as it is used here contemplates one particular length of space that separates each set of adjacent surfaces, it follows that "any" means "each and every" set of adjacent surfaces. Thus, read in the context of the claim language, the term "any" means "each and every."

F. Adjacent

Sharper Image and IPS dispute the meaning of the term "adjacent" as used in claim 24 of the '801 patent. Sharper Image construes the term to mean "next to one another," while IPS's proposed construction is "near one another and not separated by anything of the same kind." 0

Claim interpretation that excludes a preferred embodiment is not favored. *Burke, Inc. v. Bruno Indep. Living Aids, Inc.*, 183 F.3d 1334, 1341 (Fed.Cir.1999)("The district court's claim interpretation [] would exclude the preferred embodiment described in the specification and, thus, cannot be sustained."). IPS's proposed construction of the term "adjacent" excludes the preferred embodiment illustrated in Figure 3 of the '801 patent. In Figure 3, an array of collector electrodes is positioned such that the electrodes, aligned like the teeth of a comb, extend toward another array of electrodes that are similarly aligned and facing the first array. The arrays are offset such that the electrodes from each array are positioned between one another. In this embodiment, IPS's construction would mean that the electrodes within an array are not "adjacent" to one another because an electrode from the opposite array is positioned between them (thus "separating" them).

Sharper Image's proposed construction is logical and comports with the plain and ordinary meaning of "adjacent" while not excluding the preferred embodiment described in the '801 patent. The Court construes the term "adjacent" to mean "next to one another."

G. Substantially Equal

Sharper Image and IPS dispute the meaning of the term "substantially equal" as it is used in claim 24 of the '801 patent. Sharper Image construes the term to mean "generally equal," while IPS's proposed construction is "encompasses only differences that are imperceptible to the naked eye and under no circumstances greater than ten percent."

The term "substantially equal" as used in claim 24 of the '801 patent does not require construction by the Court and is given its plain and ordinary meaning.

H. Directly Confronting

Sharper Image and IPS dispute the meaning of the phrase "directly confronting" as used in claim 24 of the '801 patent. Sharper Image construes the term to mean "facing each other" while IPS construes the term to mean "facing one another with no other element therebetween."

The Court previously construed this disputed term in the March 17 Order in C 02-4860 CW.FN11 The Court construed the phrase "directly confronting" then, as it does now, to mean "facing each other."

I. Voltage Pulses of a Single Polarity

Sharper Image and IPS dispute the meaning of the term "voltage pulses of a single polarity" as used in claim 24 of the '801 patent. Sharper Image construes the term to mean "an electrical signal of voltage pulses that are either positive or negative." IPS's proposed construction is "a pulsed voltage signal having a baseline and periodic deviations from the baseline, the deviations of which extend in only one direction relative to the baseline." At the request of the Court, the parties have submitted supplemental briefing on the basic tenets and properties of electricity, pulses, voltage, waves and polarity.FN12

The primary dispute between the parties is over the reference point relative to which the voltage pulses are positive or negative. Sharper Image argues that its construction assumes that the reference point is zero, or ground, and that this assumption is based both on common sense and on the natural meaning of the terms "positive" and "negative." IPS's primary argument to the contrary is that the next clause in claim 24 states that "the absolute value of the voltage of said signal stays above a predetermined minimum value." IPS argues that this subsequent clause necessarily means that the pulse signal can never equal zero, and therefore to construe the disputed term as based upon a zero point of reference would render the subsequent clause superfluous.

The logical meaning of "voltage pulses of a single polarity" is that the signal consists of pulses that are either all positive or all negative relative to a zero voltage reference. Further, the specification language supports Sharper Image's construction: "At no time does the voltage pulse wavetrain drop to the zero voltage reference level (ground)." '801 Patent at 8:1-2. Contrary to IPS's argument, Sharper Image's construction does not render the subsequent phrase in claim 24 superfluous. That phrase may mean, as IPS argues, that the absolute value of the pulse signal, whatever its polarity, cannot equal zero. This is not superfluous to the disputed phrase, as construed by Sharper Image, requiring that the signal of voltage pulses be either positive or negative, thus allowing a signal with a baseline equal to zero.

Sharper Image's proposed construction of "voltage pulses of a single polarity" is logical and conforms to the '801 patent's specification language. The Court construes "voltage pulses of a single polarity" to mean "an electrical signal of voltage pulses that are either positive or negative."

CONCLUSION

The Court construes the disputed terms and phrases as stated above. The Court DENIES Sharper Image's motion to strike Kaz's responsive claim construction brief (C 02-4860 CW, Docket No. 235), GRANTS the cross-motions by Sharper Image and IPS to bar use of extrinsic evidence (C 03-4426 CW, Docket Nos. 77 and 78), and DENIES Ionic Pro's request for leave to file a surreply brief (C 04-0824 CW, Docket No. 124).

IT IS SO ORDERED.

FN1. Honeywell is not a named party in C 04-0529 CW, the now-consolidated action in which the '026 and '484 patents are at issue, and thus the claim construction papers filed by Kaz were not filed on its behalf.

FN2. The Court expresses no opinion as to the construction of claim terms agreed upon by the parties, nor as to how the agreed upon meanings of those claim terms affect parties to other litigation relating to the patents-in-suit.

FN3. The Court denies Sharper Image's motion to strike Kaz's responsive opening claim construction brief. Because the Court does not rely on the picture cited by Sharper Image in its motion to strike, the motion is denied as moot.

FN4. Ionic Pro agrees with Sharper Image's construction.

FN5. The Court denies Ionic Pro's request for leave to file a sur-reply brief because the Court does not rely on the argument raised by Sharper Image for the first time in its reply brief.

FN6. Sharper Image and Ionic Pro agree that the term should be construed to mean "electrically conductive surfaces for giving off ions."

FN7. Sharper Image and Ionic Pro agree that the term should be construed to mean "electrically conductive surface for collecting ions and airborne particles."

FN8. Kaz agrees with Sharper Image that the term should be construed to mean "having a length in a vertical direction greater than the width."

FN9. In C 02-4860 CW, Sharper Image and Kaz agree that the term should be construed to mean "able to be replaced in a vertical direction [through said opening]."

FN10. In C 04-0824 CW, Sharper Image and Ionic Pro agree that the term should be construed to mean "bottom structure for holding up the housing in a vertical orientation."

FN11. During claim construction in C 02-4860 CW, Sharper Image also construed "directly confronting" to mean "facing each other," while the defendants proposed "positioned across a continuous space, such that air flows electrokinetically across this space and through the device." Thus, the Court previously rejected a construction that included a limitation ("across a continuous space") similar to that which IPS proposes here ("with no other element therebetween").

FN12. The Court grants the parties' cross-motions to bar use of extrinsic evidence to change the meaning of the claim term. The supplemental filings requested by the Court were used only as a tutorial for background information.

N.D.Cal.,2005.

Sharper Image Corp. v. Honeywell Intern., Inc.

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