

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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ABS GLOBAL, INC.,  
Petitioner,

v.

INGURAN, LLC,  
Patent Owner.

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Case IPR2016-00927  
Patent 8,198,092 B2

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Before KRISTINA M. KALAN, CHRISTOPHER M. KAISER, and  
MICHELLE N. ANKENBRAND, *Administrative Patent Judges*.

KALAN, *Administrative Patent Judge*.

FINAL WRITTEN DECISION  
*35 U.S.C. § 318(a) and 37 C.F.R. § 42.73*

## I. INTRODUCTION

ABS Global, Inc. (“Petitioner”) filed a Petition requesting an *inter partes* review of claims 1–13, 16, 18–19, 21, 26–28, 32, 40–46, and 49 of U.S. Patent No. 8,198,092 B2 (Ex. 1001, “the ’092 patent”). Paper 1 (“Pet.”). Inguran, LLC (“Patent Owner”) filed a Preliminary Response to the Petition. Paper 6 (“Prelim. Resp.”). We instituted an *inter partes* review of claims 1–13, 16, 18–19, 21, 26–28, 32, 40–46, and 49 on the grounds of unpatentability alleged in the Petition. Paper 7 (“Dec.”). After institution of trial, Patent Owner filed a Patent Owner Response (Paper 12, “PO Resp.”) and Petitioner filed a Reply (Paper 18, “Reply”). Pursuant to Board authorization (Paper 22), Patent Owner filed a Notice identifying alleged new grounds of obviousness in Petitioner’s Reply (Paper 23) and Petitioner filed a response (Paper 24). An oral hearing was held on June 21, 2017. A transcript of the hearing has been entered into the record. Paper 32 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 6, and we issue this Final Written Decision pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. We conclude that Petitioner has not established by a preponderance of the evidence that any of claims 1–13, 16, 18–19, 21, 26–28, 32, 40–46, and 49 of the ’092 patent are unpatentable.

### A. *Related Proceedings*

The parties represent that the ’092 patent is involved in *ABS Global, Inc. v. Inguran, LLC*, Case No. 3:14-cv-00503-wmc (W.D. Wis.). Pet. 2; Paper 5, 2.

### B. *The ’092 Patent*

The ’092 patent, titled “Digital Sampling Apparatus and Methods for Sorting Particles” issued on June 12, 2012, and claims priority to two

provisional patent applications filed on March 28, 2003. Ex. 1001, at [54], [60]. The '092 patent relates to a “system and method for sorting a mixture of stained particles including a digital signal processor for analyzing and classifying the digital information generated from the particles” and to “providing a sorting signal to a sorting system as a function of the analyzed and classified digital information.” *Id.* at [57]. The patent

relates generally to apparatus and methods for animal semen collection, and more particularly to apparatus and methods using various techniques, including flow cytometry, to yield sperm populations that are enriched with sperm cells having one or more desired characteristics, such as viable populations of sperm cells sorted according to DNA characteristics for use by the animal production industry to preselect the sex of animal offspring.

*Id.* at 1:29–36. In addition, the patent is directed to improved methods and apparatus for digitally processing signals representing fluorescence. *Id.* at 4:9–11. The digital system, in certain embodiments, detects analog to digital converted pulses as a function of background characteristics, initializes discrimination parameters, detects digital information corresponding to waveform pulses, analyzes digital information, classifies pulses, and defines decision boundaries. *Id.* at 4:11–27.

C. *Illustrative Claim*

Claim 1 recites:

1. A system for sorting a mixture of stained particles, including stained particles having a characteristic A and stained particles having a characteristic B, the system comprising:
  - a. a fluid delivery system for delivering a fluid containing the stained particles in a flow path;
  - b. an electromagnetic radiation source for exciting fluorescence emissions from the stained particles having

- characteristic A and the stained particles having characteristic B in the flow path;
- c. a photodetector for detecting the fluorescence emissions from the stained particles;
- d. a processor in communication with the photodetector for classifying the stained particles according to their fluorescence emissions as either particles having characteristic A or particles having characteristic B;
- e. a sorting system for sorting the stained particles according to the classification to provide at least one population containing desired particles;
- f. an analog to digital converter for sampling a time-varying analog output from the photodetector and providing an output including digital information corresponding to the time-varying analog output wherein the time-varying analog output and the corresponding digital information include a series of waveform pulses, the waveform pulses being indicative of characteristic A or characteristic B; and
- g. a digital signal processor for analyzing and classifying the digital information and providing a sorting signal to the sorting system as a function of the analyzed and classified digital information wherein the digital signal processor includes instructions for detecting the waveform pulses corresponding to the digital information, instructions for extracting features in the detected waveform pulses, and instructions for discriminating the detected waveform pulses as a function of their extracted features.

Ex. 1001, 211:64–212:34.

Of the challenged claims 1–13, 16, 18–19, 21, 26–28, 32, 40–46, and 49, claims 1, 16, 18, 19, 21, 26, 28, 32, and 40 are independent. Claims 2–13 depend, directly or indirectly, from claim 1. Claim 27 depends from claim 26. Claims 41–46 and 49 depend, directly or indirectly, from claim 40.

D. *Instituted Grounds of Unpatentability*

We instituted an *inter partes* review of claims 1–13, 16, 18–19, 21, 26–28, 32, 40–46, and 49 of the '092 patent on the following grounds:

Reference(s)	Basis	Claims Challenged
Godavarti <sup>1</sup> and Leary <sup>2</sup>	§ 103	1–3, 5–9, 11–13, 16, 18–19, 21, 28, 32, 40–41, and 43–46
Godavarti, Leary, and Johnson <sup>3</sup>	§ 103	4, 26–27, 42, and 49
Godavarti, Leary, and Piper <sup>4</sup>	§ 103	10

II. ANALYSIS

A. *Claim Construction*

In an *inter partes* review, claim terms in an unexpired patent are interpreted according to their broadest reasonable constructions in light of the specification of the patent in which they appear. *See* 37 C.F.R. § 42.100(b); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144–46 (2016) (upholding the use of the broadest reasonable interpretation standard). Under the broadest reasonable construction standard, claim terms are presumed to have their ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the entire

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<sup>1</sup> Mahesh Godavarti et al., *Automated Particle Classification Based on Digital Acquisition and Analysis of Flow Cytometric Pulse Waveforms*, 24 CYTOMETRY 330–339 (1996) (Ex. 1005, “Godavarti”).

<sup>2</sup> James F. Leary et al., *Advanced “Real-Time” Classification Methods for Flow Cytometry Data Analysis and Cell Sorting*, *Optical Diagnostics of Living Cells V*, Proc. SPIE Vol. 4622, 204–210 (2002) (Ex. 1006, “Leary”).

<sup>3</sup> L.A. Johnson et al., *Sex Preselection: High-Speed Flow Cytometric Sorting of X and Y Sperm for Maximum Efficiency*, 52 THERIOGENOLOGY 1323–1341 (1999) (Ex. 1007, “Johnson”).

<sup>4</sup> James Piper et al., WIPO Publication No. WO 92/08120, published May 14, 1992 (Ex. 1022, “Piper”).

disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007).

Petitioner urges that the ordinary meaning should be applied to the terms “sampling” (Pet. 16) and “detecting waveform pulses” (*id.* at 17). Petitioner also proposes constructions for the terms “sort processor” (*id.* at 20), “enumerates the number of classified particles having characteristic A or having characteristic B” (*id.*), “continuous sampling rate” (*id.* at 21), and “synchronously sampling the analog output” (*id.*).

Patent Owner does not propose its own claim constructions for any terms apart from “detecting waveform pulses.” PO Resp. 41. “Patent Owner’s construction of that term “requires the application of logic to identify ‘*waveform pulses*’ that are likely to represent either particles ‘for sorting’ or particles ‘to be avoided,’ such as either live X or live Y-chromosome bearing sperm cells.” *Id.* In a table, Patent Owner characterizes its construction as “applying logic to ‘identif[y] sample sets that are likely to represent either particles targeted for sorting into a population or particles targeted to be avoided because they are potential contaminants to a population.’” *Id.* at 41–42 (citing Ex. 1001, 58:53–56).

Petitioner argues that Patent Owner’s proposed construction is “an overly-narrow construction of ‘detecting waveform pulses’ that attempts to track a particular example set forth in the specification.” Reply 2, 17–23. The specification, argues Petitioner, “provides an express definition for ‘waveform pulse’ that is consistent with the ordinary meaning of the term and is much broader than [Patent Owner’s] construction.” *Id.* at 18 (citing Ex. 1001, 52:66–53:1). The cited portion of the specification provides that “In general a waveform pulse 497 is defined as a waveform or a portion of a

waveform containing one or more pulses or some portion of a pulse.”

Ex. 1001, 52:66–53:1.

In our Institution Decision, we determined that no claim term required express construction. Dec. 6 (citing *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) (noting that only claim terms which are in controversy need to be construed, and then only to the extent necessary to resolve the controversy)). Here, we maintain that position, because our Decision does not turn on the disputed construction of “detecting waveform pulses.”

*B. Principles of Law*

A claim is unpatentable under 35 U.S.C. § 103 if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) objective evidence of nonobviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

For the purpose of this Decision, we accept Petitioner’s undisputed contention that “a person of skill in the art would be someone who has a bachelors or a masters degree in the fields of biology, biochemistry, or engineering, at least five years of experience in designing and developing flow cytometers, and knowledge of sperm cell physiology.” Pet. 5. Petitioner represents that this definition was advanced by Patent Owner in

related litigation. *Id.* The level of ordinary skill in the art is further demonstrated by the prior art asserted in the Petition. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001).

C. *Overview of Asserted References*

i. *Godavarti*

Godavarti, titled “Automated Particle Classification Based on Digital Acquisition and Analysis of Flow Cytometric Pulse Waveforms,” relates to implementation of a digital data acquisition system within a conventional flow cytometer. Ex. 1005, 330–31. Recognizing that analog circuits limit “the features that can be extracted from the pulse shape to pulse height, area, and width,” Godavarti presents as an alternative “digital sampling, in which the complete pulse waveforms are digitized at the point of detection.” *Id.* at 330.

Godavarti provides:

The salient features of the system, which is housed in a personal computer based on the Intel 80486 processor, are as follows. Signal extraction from the photomultiplier outputs occurs after preamplification but prior to baseline restoration. Digitization is done at a rate of 20 MHz; this means that typical captured waveforms comprise 150–400 samples, depending on particle size. The digital system is attached to a Coulter Elite flow cytometer/cell sorter (Coulter Electronics, Miami Lakes, FL) equipped with a 488 nm argon laser. The pulse waveforms that were used in this work included 90° light-scatter signals, and 520–530 nm and 555–595 nm fluorescence signals. WEHI lymphoma cells and chicken red blood cells (CRBCs) were fixed and stained with PI . . . .

*Id.* at 331.

Godavarti implements its digital signal processing on a Sun Microsystems computer work station, but states that “for real-time



applications, the software could be compiled to run on the DSP [digital signal processor] chip in the digital analysis system.” *Id.* at 333. Godavarti also states that “in the next-generation digital data acquisition system, our design calls for real-time performance.” *Id.* at 339.

*ii. Leary*

Leary, titled “Advanced ‘Real-Time’ Classification Methods for Flow Cytometry Data Analysis and Cell Sorting,” discusses developments of new methods that can be implemented for real-time data classification for cell sorting. Ex. 1006, 204. Leary carries out real-time data classification and sorting using a digital signal processing board. *Id.* at 204–05. Leary highlights that digital signal processing boards “are at a reasonable price and programming software is easier to use,” such that the Leary is “implementing the features of the original system using DSP boards.” *Id.*

*iii. Johnson*

Johnson, titled “Sex Preselection: High-Speed Flow Cytometric Sorting of X and Y Sperm for Maximum Efficiency,” discloses a general purpose cell sorter, namely, a flow cytometry-based system, modified for sorting sperm cells. Ex. 1007. Johnson teaches the use of sort windows to differentiate between X- and Y-chromosome-bearing sperm, as well as unaligned or unresolved sperm cells. *Id.* at 1328–30.

*iv. Piper*

Piper, titled “Pulsed Laser Flow Cytometry,” discloses pulsed lasers in flow cytometric cell sorting. Ex. 1022, at [54], 3.

*D. Analysis*

*i. Leary as Prior Art*

Leary is a basis for each instituted ground in this *inter partes* review. As a threshold matter, Patent Owner argues that Leary is not prior art, and then argues that, even if it is, the inventors of the '092 patent “conceived of and reduced the invention to practice before any proven publication date of Leary.” PO Resp. 10–33. Thus, before we can reach the merits of Petitioner’s obviousness contentions, or Patent Owner’s conception and reduction to practice arguments, we must determine whether Leary is a prior art printed publication under 35 U.S.C. § 102.

Petitioner has the burden of demonstrating unpatentability. *See Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015) (citing *Tech. Licensing Corp. v. Videotek, Inc.*, 545 F.3d 1316, 1326–27 (Fed. Cir. 2008)) (discussing the burden of proof in an *inter partes* review). One aspect of demonstrating by a preponderance of the evidence that the challenged claims are obvious is demonstrating that the references relied upon are patents or printed publications. A party asserting a reference as a prior art printed publication “should produce sufficient proof of its dissemination or that it has otherwise been available and accessible to persons concerned with the art to which the document relates.” *In re Wyer*, 655 F.2d 221, 227 (CCPA 1981); *see generally Coalition for Affordable Drugs VIII v. Trs. of the Univ. of Pa.*, Case IPR2015-01835 (PTAB March 6, 2017) (Paper 56).

“The statutory phrase ‘printed publication’ has been interpreted to mean that before the critical date the reference must have been sufficiently accessible to the public interested in the art; dissemination and public

accessibility are the keys to the legal determination whether a prior art reference was ‘published.’” *In re Cronyn*, 890 F.2d 1158, 1160 (Fed. Cir. 1989) (quoting *Constant v. Adv. Micro-Devices, Inc.*, 848 F.2d 1560, 1568 (Fed. Cir. 1988)); *SRI Int’l, Inc. v. Internet Security Sys., Inc.*, 511 F.3d 1186, 1194 (Fed. Cir. 2008) (A reference is publicly accessible “upon a satisfactory showing that such document has been disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the subject matter or art exercising reasonable diligence, can locate it.”).

“Because there are many ways in which a reference may be disseminated to the interested public, ‘public accessibility’ has been called the touchstone in determining whether a reference constitutes a ‘printed publication’ bar under 35 U.S.C. § 102(b).” *In re Hall*, 781 F.2d 897, 898–99 (Fed. Cir. 1986). “The determination of whether a reference is a ‘printed publication’ under 35 U.S.C. § 102(b) involves a case-by-case inquiry into the facts and circumstances surrounding the reference’s disclosure to members of the public.” *In re Klopfenstein*, 380 F.3d 1345, 1350 (Fed. Cir. 2004). We look to the underlying facts to make a legal determination as to whether a reference is a printed publication. *Suffolk Techs., LLC v. AOL Inc.*, 752 F.3d 1358, 1364 (Fed. Cir. 2014).

For purposes of instituting trial, we accepted Petitioner’s contention, unchallenged in the Preliminary Response, that Leary was available as prior art. Pet. 12–13 n.3 (asserting that Leary “was received by a library at least as early as June 24, 2002, prior to the earliest possible effective filing date of the ’092 patent. Ex. 1006 (Leary 2002) at p. 2.”); Dec. 5. During trial, however, Patent Owner challenged that contention (PO Resp. 25–28), and Petitioner provided additional argument and evidence in reply (Reply 8–10).

As background for the discussion of Leary as prior art, we note some additional dates: Patent Owner alleges that the inventors conceived of the invention in December 2001, and were diligent until reduction to practice of the invention at least as early as June 27, 2002. PO Resp. 13, 30–31.

Petitioner alleges that the earliest effective filing date of the '092 patent is March 28, 2003, the filing date of the two provisional applications to which the subject patent claims priority. Reply 8 (citing Ex. 1001, cover).

Patent Owner argues that “Petitioner has not established the Leary reference’s publication date by a preponderance of the evidence.” PO Resp. 25. Specifically, Patent Owner argues that “Petitioner has not even alleged a publication date for Leary,” but rather, merely points to a June 24, 2002 date stamp “apparently placed on Leary by a library for an unspecified purpose.” *Id.* The library date stamp, Patent Owner contends, is hearsay (citing *Apple Inc. v. DSS Tech. Mgmt., Inc.*, Case IPR2015-00373, slip op. at 10–11 (PTAB June 25, 2015) (Paper 8)) and/or a failure of competent evidence that Leary meets the requirements for a “printed publication” before the critical date (citing *Actavis, Inc. v. Research Corp. Techs., Inc.*, Case IPR2014-01126, slip op. at 10–13 (PTAB Jan. 9, 2015) (Paper 22)). *Id.* at 27–28. As a result, Patent Owner contends that “the Board cannot treat the Leary reference’s June 24, 2002 date stamp as the date of publication.” *Id.* at 28.

Petitioner replies that Leary “is a publication of a well-known and reputable organiz[a]tion – the International Society for Optical Engineering (SPIE). It bears a copyright date of 2002, ISSN and ISBN numbers, and ample information identifying the publisher.” Reply 9 (citations omitted). Petitioner avers that the June 24, 2002 date stamp “further confirms that

[the] book in which Leary appears was published and accessible in 2002,” and “the publisher’s website provides publication dates for SPIE publications and states that Ex. 1006 was published on May 28, 2002.” *Id.* (citing Ex. 1039). Petitioner summarizes that this evidence “is all more than sufficiently reliable evidence to establish that Leary was published in 2002.” *Id.* at 10.

In a footnote, Petitioner states:

Petitioner concedes that if establishing a publication date two or three days earlier than a reduction to practice date were critical in this proceeding, then a librarian’s declaration establishing a particular date of public accessibility in a particular library might be necessary. For purposes of this proceeding, Petitioner will concede that if Patent Owner were able to establish an actual reduction to practice by June 27, 2002, then it would have antedated the Leary reference because of its prior conception and diligence for at least the 2-3 days between the June 24 library date stamp and the June 27 date. However, because Patent Owner has failed to show an actual reduction to practice, any date before March 28, 2003 is sufficient to establish Leary as prior art, and there is no legitimate question Leary was published in 2002.

*Id.* at 10 n.4.

This footnote concedes, at least, that Petitioner has provided no librarian’s declaration, and that for the purposes of this proceeding, Petitioner believes that no librarian’s declaration is necessary. Petitioner at oral hearing also conceded that there is no supporting evidence regarding the January 23–25, 2002 conference date noted on the cover of Leary. Tr. 12:18–22 (agreeing that Petitioner has not “presented any evidence about whether [Leary] was publicly available as of its presentation date, January 23, 2002.”); *see* Ex. 1006, 1. Petitioner further confirmed that there were no

affidavits or other testimony in the record regarding the availability of Leary, either from a librarian, a recipient of the Leary publication, or an SPIE representative. Tr. 14:14–15:14. Thus, Petitioner’s only evidence of public accessibility of Leary is Leary itself, and Exhibit 1039, which appears to be a printout from the SPIE website.

Patent Owner, at oral hearing, argued that when “presented with the Leary reference and the library stamp dated June 24, we objected to the Leary reference as being ineligible prior art because there was insufficient evidence of public accessibility.” *Id.* at 30:3–6. In sum, Patent Owner argued: “We think there’s been inadequate evidence of proof of public accessibility [of Leary] in its entirety.” *Id.* at 30:16–17.

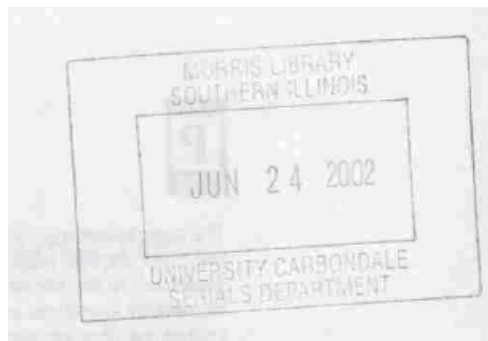
At the institution stage, the Board tends to look for “only a threshold showing that an asserted reference is prior art.” *Gopro Inc. v. Contour IP Holding LLC*, Case IPR2015-01078, slip op. at 6 (PTAB Feb. 16, 2017) (Paper 59). At institution, “the question is not whether a preponderance of the evidence supports the documents being prior art, but rather whether Petitioner has provided sufficient evidence, based on the current record, to show a reasonable likelihood of prevailing on its asserted ground.” *HTC Corp. v. Cellular Commc’ns Equip. LLC*, Case IPR2016-01503, slip op. at 16 (PTAB Feb. 13, 2017) (Paper 7). We note that “there is a significant difference between a petitioner’s burden to establish a ‘reasonable likelihood of success’ at institution, and actually proving invalidity by a preponderance of the evidence at trial.” *TriVascular, Inc. v. Samuels*, 812 F.3d 1056, 1068 (Fed. Cir. 2016) (quoting 35 U.S.C. § 314(a) and comparing § 316(e)); *see also Gopro Inc., supra* (“At the final decision stage, however, a petitioner has the burden of proving unpatentability by a preponderance of the

evidence. 35 U.S.C. § 316(e).”). Below, we look specifically at the categories of evidence Petitioner has presented.

*Library Date Stamp*

Of the proffered indicia of public accessibility, Petitioner and Patent Owner devote the most time to the June 24, 2002 date stamp appearing on the cover of the copy of Leary that Petitioner filed as an exhibit. Ex. 1006,

2. The date stamp on the cover of Leary is reproduced below:



The date stamp reads “Morris Library Southern Illinois Jun 24 2002 University Carbondale Serials Department.”

Petitioner argues: “That Ex. 1006 bears a June 24, 2002 date stamp from the Southern Illinois University Library further confirms that [the] book in which Leary appears was published and accessible in 2002.” Reply 9 (citing Ex. 1006, 2). Petitioner relies on *Ericsson Inc. v. Intellectual Ventures*, Case IPR2014-00527, slip op. at 10–11 (PTAB May 18, 2015) (Paper 41), for the proposition that the Board has previously found similar publications admissible without a librarian’s declaration. Reply 9.

Patent Owner responds that it objected to Leary as being ineligible prior art because there was insufficient evidence of public accessibility based on the library stamp dated June 24, 2002. Tr. 30:2–9.

Petitioner’s focus on whether a date stamp itself is evidence of the public accessibility date of a reference disregards Petitioner’s burden to

show that the reference was publicly accessible by a particular date. Once the issue of public accessibility based on a date stamp has been broached, a petitioner must do more than rely on that date stamp to demonstrate that the reference in question was publicly accessible. For example, competent testimony from a librarian or other declarant regarding the acquisition, indexing, cataloging, shelving, and circulation practices of the library would support an assertion of public accessibility. *See In re Hall*, 781 F.2d at 899 (Librarian’s affidavit establishing normal time frame and practice for indexing, cataloging and shelving doctoral theses established that the thesis in question would have been accessible by the public before the critical date.); *see, e.g., Samsung Elec. Co. v. Image Proc. Techs. LLC*, Case IPR2017-00336, slip op. at 31–37 (PTAB May 25, 2017) (Paper 15) (presenting testimony of librarian based on her own personal knowledge and experiences regarding the public accessibility date of a contested reference).

Petitioner acknowledged that it provided no affidavit regarding the general library procedure as to indexing, cataloging, and shelving of publications. When asked at oral hearing whether there were any “affidavits in evidence or any other testimony regarding the availability based on, for example, the testimony of someone who actually received the publication or the librarian regarding how the publication is cataloged,” Petitioner replied, “No. I don’t think that’s essential in every case.” Tr. 14:14–20.

Regarding Patent Owner’s hearsay argument, we agree that the date stamped on Leary appears to be hearsay, as Petitioner relies on that date to show the asserted publication date of Leary. Fed. R. Evid. 801. Even assuming Petitioner could establish that the date stamp is not hearsay or falls within an exception to the rule against hearsay, which Petitioner does not



explicitly argue, the date stamp does not establish when, if ever, Leary became publicly accessible.

Thus, while the date stamp on Petitioner’s copy of Leary suggests that the publication was stamped with a June 24, 2002 date and information identifying the library, it does nothing more. Petitioner has not identified, and we are unable to ascertain, any information about Leary’s public accessibility based on this date stamp.

*Copyright Notice*

Leary’s copyright notice states “Copyright© 2002, The Society of Photo-Optical Instrumentation Engineers.” Ex. 1006, 3. Petitioner argues that Leary “bears a copyright date of 2002” as part of its argument that “Leary was published in 2002.” Reply 9–10.

When determining the threshold issue of whether a document is a printed publication for purposes of a decision on institution, the Board has accepted a copyright notice as prima facie evidence of publication. *See FLIR Sys., Inc. v. Leak Surveys, Inc.*, Case IPR2014-00411, slip op. at 18–19 (PTAB Sept. 5, 2014) (Paper 9). However, in the absence of further evidence, a copyright notice may not be determinative. *See Microsoft Co. v. Corel Software, LLC*, Case IPR2016-01083, slip op. at 13–14 (PTAB Dec. 1, 2016) (Paper 14) (“The copyright notice, alone, however, sheds virtually no light on whether the document was publicly accessible as of that date, therefore additional evidence is typically necessary to support a showing of public accessibility”); *Kinetic Tech., Inc. v. Skyworks Solutions, Inc.*, Case IPR2014-00690, slip op. at 17–20 (PTAB Oct. 19, 2015) (Paper 43) (finding a copyright notice insufficient); *ServiceNow, Inc. v. Hewlett-Packard Co.*, Case IPR2015-00716, slip op. at 17 (PTAB Aug. 26, 2015) (Paper 13)

(finding a copyright notice insufficient). In certain instances, registration of a copyright, without more, does not demonstrate sufficient accessibility to establish that the reference is a printed publication. *See, e.g., In re Lister*, 583 F.3d 1307, 1312–13 (Fed. Cir. 2009) (detailing that even when the Copyright Office issues a certificate of registration for a manuscript, that does not mean that the manuscript was listed in a catalog or index that would have permitted an interested researcher to learn of its existence and locate it for inspection).

Petitioner’s focus on whether a copyright notice is evidence of the date of a reference disregards Petitioner’s burden to show that the reference was publicly accessible by a particular date. Although a copyright notice may be evidence of the date a reference was set down into tangible form, and may put a reader on notice that a claim has been made that the work is copyrighted, it does not itself demonstrate sufficient accessibility to establish that the “published” work is a printed publication under patent law. Here, although the copyright notice may be probative that SPIE owns a copyright to Leary, it is not probative that Leary was ever published by SPIE or anyone else. *See, e.g., Stryker Corp. v. Karl Storz Endoscopy-America, Inc.*, Case IPR2015-00677 (PTAB Sept. 2, 2015) (Paper 15) (citing 17 U.S.C. § 401 and explaining why a copyright notice does not establish when a document was publicly accessible under patent law). Therefore, additional evidence supporting a showing of public accessibility is typically necessary in that regard. *See Arista Networks, Inc. v. Cisco Sys., Inc.*, Case IPR2016-00303, slip op. at 17 (PTAB May 25, 2017) (Paper 53) (relying on testimony and other indicia); *Ford Motor Co. v. Cruise Control Techs. LLC*, Case IPR2014-00291, slip op. at 10 (PTAB June 29, 2015) (Paper 44) (discussing

additional evidence of public accessibility, including testimony and length of time between copyright notice and critical date, that supported a finding that a reference was a prior art printed publication). Accordingly, we look to whether Petitioner has provided other evidence or argument to support its contention that Leary was publicly accessible.

At oral hearing, Petitioner stated: “You have the copyright dates obviously are indicating it’s a 2002 copyright and that’s when they believe it was published.” Tr. 13:6–8. In its Reply, Petitioner argues that Leary “bears a copyright date of 2002,” and relies on *Ericsson*. We are not persuaded that Petitioner’s reliance on *Ericsson* is apposite. There, in considering a Motion to Exclude, the Board accepted publication information on the IEEE copyright line of a reference “as evidence of its date of publication and public accessibility” because “IEEE is a well-known, reputable compiler and publisher of scientific and technical publications, and we take Official Notice that members in the scientific and technical communities who both publish and engage in research rely on the information published on the copyright line of IEEE publications.” *Ericsson*, slip op. at 10–11. Here, although it might be the case that SPIE is a well-known, reputable compiler of scientific and technical publications, Petitioner has not presented evidence to establish that as fact. Moreover, we note that we are not bound by non-precedential opinions of the Board.

In this case, Petitioner has provided insufficient persuasive evidence that Leary was “sufficiently accessible to the public interested in the art” before the critical date. See *In re Cronyn*, 890 F.2d at 1160; see also *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 865–66 (Fed. Cir. 2010) (finding no error in district court’s determination that user manuals were not

printed publications in the absence of evidence of the source, publication, or public accessibility of either manual). In sum, Petitioner's reliance on the copyright notice is insufficient evidence that Leary was publicly accessible as of any particular date in 2002.

*Website Printout (Exhibit 1039)*

Petitioner argues that "the publisher's website provides publication dates for SPIE publications and states that Ex. 1006 was published on May 28, 2002." Reply 9 (citing Ex. 1039). Patent Owner counters that "Petitioner offered a printout of something that came from an online source, generally indicating that the proceedings of the SPIE contained the Leary reference at some point in time, presumably some time in the summer of 2002. I do dispute the precise date and the public accessibility." Tr. 30:11–17.

Exhibit 1039 is a printout of a webpage, available at <http://spie.org/Publications/Proceedings/Volume/4622>, according to its footer. Ex. 1039, 1. Petitioner focuses on the portion of the webpage stating "Date Published: 28 May 2002." However, this information does not constitute a showing that the publication in question was publicly accessible as of May 28, 2002. For example, it does not indicate that the publication itself was disseminated or otherwise made available to the public as of May 28, 2002. It does not indicate that anyone received the publication on May 28, 2002. It does not indicate that one of ordinary skill in the art could have located the information necessary to order the publication on May 28, 2002. Moreover, Exhibit 1039 provides: "\*Available as a photocopy reprint only. Allow two weeks reprinting time plus standard delivery time." Ex. 1039, 1. This is evidence only that Leary was available "as a photocopy reprint" with

a two-week delay on whatever date Exhibit 1039 was created. That date is not the subject of any evidence to which we have been directed. *See* Paper 20, 3 (listing “Exhibit 1039 (NEW)” as “Website Printout — Publication of Leary” without providing a date). Petitioner also makes no showing as to the provenance of the webpage, who downloaded the webpage, or what the entries on the webpage mean.

When asked at oral hearing whether there was any “affidavit from someone at the SPIE saying this is how we publish things and how we would have published them in 2002,” Petitioner replied, “No, but I think that’s also not fatal.” Tr. 15:1–4.

Petitioner does not provide a satisfactory explanation of the relevance of Exhibit 1039. Reply 9. The Exhibit listing appears to do no more than identify a date of publication, which does not address public accessibility. Exhibit 1039 does not contain a creation or entry date for the webpage itself and, therefore, provides no additional evidence as to its bearing on Leary’s public accessibility during the disputed time period. Thus, Petitioner provides no explanation for how Exhibit 1039 shows Leary was available such that interested and ordinarily skilled persons could locate it exercising reasonable diligence. *See Blue Calypso, LLC v. Groupon, Inc.*, 815 F.3d 1331, 1348 (Fed. Cir. 2016); *Int’l Bus. Machs. Corp. v. Intellectual Ventures II LLC*, Case IPR2015-01323, slip op. at 13–14 (PTAB Sep. 27, 2016) (Paper 38) (finding listing in WorldCat database fails to support public accessibility of asserted reference).

*ISBN and ISSN Numbers*

Leary's copyright page also bears an ISSN number of 1605-7422 and an ISBN number of 0-8194-4361-1. Ex. 1006, 3.

Petitioner argues, in its Reply, that Leary bears "ISSN and ISBN numbers, and ample information identifying the publisher." Reply 9. At oral hearing, Petitioner elaborated that "you have an ISBN number reflecting that it's been recorded as a publication, a published book" and that "[y]ou have . . . ISBN recordings that are consistent with that [date of May 28, 2002]." Tr. 13:5–6, 14:11–12. Setting aside whether Petitioner's argument exceeds the scope of its Reply, Petitioner has not explained sufficiently what significance we should accord to ISBN or ISSN numbers with respect to public accessibility as of a date certain. *See Square, Inc. v. Unwired Planet, LLC*, Case CBM2014-00156, slip op. at 18 (PTAB Dec. 24, 2014) (Paper 11) ("Petitioner provides no evidence about what an [International Standard Book Number] actually is, how it is generated, or what it purports to show, which would allow us to assign any weight to it."). Absent argument or evidence directed to the manner in which Leary was assigned ISSN and ISBN numbers, we are not persuaded that those numbers demonstrate public accessibility as of any of the dates Petitioner suggests.

In sum, we are not persuaded that Leary is entitled to a publication date based on the evidence before us. We have a number of dates before us: January 23–25, 2002 (Ex. 1006, 1), May 28, 2002 (Ex. 1039), and June 24, 2002 (Ex. 1006, 2). However, based solely on Exhibits 1006 and 1039, we have insufficient evidence before us that Leary was publicly accessible as of any particular date. Without more specific evidence regarding, for example, dissemination of an abstract to conference attendees, the library's

cataloguing practices, the publisher's distribution practices, or receipt by a particular recipient or recipients, we are unable to pin down a particular date on which Leary was accessible to the public. Although it is plausible that such evidence exists, it is not incumbent upon the Board to seek it out. *See Conopco Inc. v. Proctor & Gamble Co.*, Case IPR2013-00505, Paper No. 69 at 27 (PTAB Feb. 10, 2015) (“We will not play archeologist with the record to discover evidentiary support for bare attorney argument made in such a response.”).

ii. *Near-Simultaneous Invention*

Petitioner argues that even if Leary does not qualify as prior art, “it is still relevant as evidence of near-simultaneous invention,” and that “those skilled in the art were aware that DSPs fast enough for sorting were available, and that they could be expected to work.” Reply 10–11 (citing *Ecolochem, Inc. v. S. Cal. Edison Co.*, 227 F.3d 1361, 1379 (Fed. Cir. 2000); *Accord Healthcare Inc., USA v. Daiichi Sankyo Co., Ltd.*, Case IPR2015-00864, slip op. at 31–32 (PTAB Sept. 12, 2016) (Paper 104)). Petitioner argues that, particularly when considered in light of the other evidence discussed in the Petition, such as the BD FACSDiVa and TigerSHARC systems, Leary is particularly strong evidence of near-simultaneous invention. Reply 12.

Patent Owner argues that Petitioner's near-simultaneous invention argument is a new ground of obviousness raised in the Reply. Paper 23, 1; Tr. 32:22–33:6. At oral hearing, Patent Owner argued, first, that Petitioner has the “burden of anticipating and dealing with the possibility of removal” of a reference, and “ought to have the burden of asking that one of the grounds be instituted, that it be on other prior art and not on combinations of

the removable reference as prior art” and second, that “this type of response should not be allowed in the reply because it basically injects a new ground into the case that quite literally could require additional discovery and additional evidence gathering, presentation and argument by the Patent Owner.” Tr. 34:4–15.

We instituted an *inter partes* review on three grounds, all of which were based in part on Leary. We did not institute an *inter partes* review based on Godavarti alone, nor did we institute an *inter partes* review based on Godavarti and an open-ended set of references. If Leary is unavailable as a prior art reference, the instituted grounds of obviousness lose one of their supporting legs, and fall. Although Petitioner may present properly responsive arguments in its reply, a new ground or new theory of obviousness generally is not permitted. As the Federal Circuit has recognized, we “must make judgments about whether a Petition identified the specific evidence relied on in a Reply and when a Reply contention crosses the line from the responsive to the new.” *Ariosa Diagnostics v. Verinata Health, Inc.*, 805 F.3d 1359, 1368 (Fed. Cir. 2015). Petitioner’s arguments—the theory of near-simultaneous invention and reliance on alternate references—were first raised in Petitioner’s Reply and constitute new arguments. We consider Petitioner’s attempted substitution of a new theory of near-simultaneous invention, or attempted insertion of a new reference or references to demonstrate what Leary should have demonstrated, to exceed the threshold of a properly responsive argument.

*iii. Asserted Obviousness*

Petitioner challenges claims 1–3, 5–9, 11–13, 16, 18–19, 21, 28, 32, 40–41, and 43–46 under 35 U.S.C. § 103 as obvious in view of Godavarti



and Leary. Pet. 22–54. Petitioner challenges claims 4, 26–27, 42, and 49 under 35 U.S.C. § 103 as obvious in view of Godavarti, Leary, and Johnson. Pet. 54–59. Finally, Petitioner challenges claim 10 under 35 U.S.C. § 103 as obvious in view of Godavarti, Leary, and Piper. Pet. 59–60.

As indicated above, each of the asserted grounds of obviousness relies on Leary as a reference. Petitioner argues that there would have been clear motivation to use Godavarti for real-time sorting once DSPs became fast enough and accessible enough, and that Leary discloses that DSPs fast enough for sorting were available before March 2003. *Id.* at 23, 27 (citing Ex. 1003 ¶ 213), 54. Regarding the challenged independent claims, Petitioner argues that Godavarti and Leary disclose the “Common System Limitations,” the limitations common to the challenged independent claims. *Id.* at 23. These include, as categorized by Petitioner, a fluid delivery system, an electromagnetic radiation source, a photodetector, a processor, a sorting system, and analog to digital converter, and a DSP. *Id.* at 23–24.

We have determined that Petitioner has not demonstrated that Leary was publicly accessible as of any particular date. Thus, Leary is not available as a prior art reference in this proceeding. Because Leary was a basis for Petitioner’s assertion that the combination of Godavarti and Leary met all the Common System Limitations of the challenged independent claims, and because all of the challenged dependent claims depend from one of the challenged independent claims, the absence of Leary as a reference means that all of the asserted combinations fail. We also have not accepted Petitioner’s theory of near-simultaneous invention. *See supra* § II.D.ii. Accordingly, we decline to rely on Godavarti alone (or in combination with Johnson and/or Piper) for any of the asserted obviousness grounds, and we

decline to rely on any of the other references Petitioner offers as a stand-in for Leary.

For the foregoing reasons, Petitioner has not established by a preponderance of the evidence the obviousness of claims 1–3, 5–9, 11–13, 16, 18–19, 21, 28, 32, 40–41, and 43–46 over Godavarti and Leary, the obviousness of claims 4, 26–27, 42, and 49 over Godavarti, Leary, and Johnson, or the obviousness of claim 10 over Godavarti, Leary, and Piper.

*E. Motion to Exclude*

Patent Owner filed a Motion to Exclude (Paper 27), to which Petitioner responded (Paper 30), and in support of which Patent Owner filed a Reply (Paper 31). Patent Owner’s motion seeks to exclude Exhibits 1010, 1012–1016, 1018, 1033, 1038, 1040, and 1041 as hearsay and as irrelevant. Paper 27, 1–2.

Petitioner responds that the exhibits sought to be excluded are admissible, as the exhibits qualify as printed publications. Paper 30, 1–3. Petitioner further responds that Patent Owner’s challenge to relevance is an “improper challenge to the sufficiency of the evidence.” *Id.* at 3. Petitioner presents arguments that the exhibits are admissible as satisfying the residual exception to hearsay. *Id.* at 6–9, 11–13 (citing Fed. R. Evid. 807).

Patent Owner replies that Petitioner uses certain exhibits for hearsay purposes. Paper 31, 1–2, 5. Patent Owner further challenges Petitioner’s reliance on the residual exception to hearsay. *Id.* at 3–5.

We do not affirmatively rely upon Exhibits 1010, 1012–1016, 1018, 1033, 1038, 1040, and 1041 in our present determination. Therefore, we need not decide Patent Owner’s Motion to Exclude Exhibits 1010, 1012–

1016, 1018, 1033, 1038, 1040, and 1041, and we dismiss the motion as moot.

*F. Motion to Seal*

Petitioner filed a Motion to Seal portions of Exhibit 1043. Paper 19. Petitioner represents that “Patent Owner contends that sealing the material set forth below is appropriate and necessary to maintain the confidentiality of non-public, highly sensitive technical, business and financial information relating to Patent Owner, its subsidiary, and a third party,” and that “Petitioner does not oppose sealing the material.” *Id.* at 1. Petitioner certifies that the parties met and conferred in good faith and agreed to use the Board’s Default Protective Order. *Id.* at 2; Exhibit 2006. Accordingly, the motion to seal is *granted* and the default protective order *entered*.

There is an expectation that information will be made public where the information is identified in a final written decision, and that confidential information that is subject to a protective order ordinarily would become public 45 days after final judgment in a trial, unless a motion to expunge is granted. 37 C.F.R. § 42.56; Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,761 (Aug. 14, 2012). In rendering this Final Written Decision, it was not necessary to identify, nor discuss in detail, any confidential information. However, a party who is dissatisfied with this Final Written Decision may appeal the Decision pursuant to 35 U.S.C. § 141(c), and has 63 days after the date of this Decision to file a notice of appeal. 37 C.F.R. § 90.3(a). Thus, it remains necessary to maintain the record, as is, until resolution of an appeal, if any.

In view of the foregoing, the confidential document filed in the instant proceeding will remain under seal, at least until the time period for

filing a notice of appeal has expired or, if an appeal is taken, the appeal process has concluded. The record for the instant proceeding will be preserved in its entirety, and the confidential document will not be expunged or made public, pending appeal. Notwithstanding 37 C.F.R. § 42.56 and the Office Patent Trial Practice Guide, neither a motion to expunge the confidential document nor a motion to maintain the document under seal is necessary or authorized at this time. *See* 37 C.F.R. § 42.5(b).

### III. CONCLUSION

For the reasons given, we are not persuaded that Petitioner has shown by a preponderance of the evidence that claims 1–13, 16, 18–19, 21, 26–28, 32, 40–46, and 49 of the '092 patent are unpatentable. In addition, Patent Owner's Motion to Exclude is dismissed as moot, and Petitioner's Motion to Seal is granted.

### IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that Petitioner has not shown by a preponderance of the evidence that claims 1–13, 16, 18–19, 21, 26–28, 32, 40–46, and 49 of the '092 patent are unpatentable;

FURTHER ORDERED that Patent Owner's Motion to Exclude is dismissed as moot;

FURTHER ORDERED that Petitioner's Motion to Seal is granted and the Board's default protective order entered; and

FURTHER ORDERED that, because this is a Final Written Decision, parties to the proceeding seeking judicial review of the Decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

IPR2016-00927  
Patent 8,198,092 B2

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