

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD.,  
and GLOBALFOUNDRIES U.S. INC.,  
Petitioners,

v.

GODO KAISHA IP BRIDGE 1,  
Patent Owner.

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Case IPR2016-01376<sup>1</sup>

Patent 6,197,696 B1

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Before JUSTIN T. ARBES, MICHAEL J. FITZPATRICK, and  
JENNIFER MEYER CHAGNON, *Administrative Patent Judges*.

**PETITIONER’S REPLY IN SUPPORT OF ITS  
MOTION TO EXCLUDE EVIDENCE UNDER 37 C.F.R. § 42.64(c)**

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<sup>1</sup> GlobalFoundries U.S. Inc.’s motion for joinder in IPR2017-00921 was granted.

## **I. INTRODUCTION**

Petitioner filed a two-page motion to exclude excerpts from two books published after the '696 patent was filed (Exhibits 2015, 2018, and 2019), too late to be relevant to the issues in this case. Patent Owner also provided earlier versions of those excerpts (Exhibits 2017 and 2027), which it represented as having the same disclosures as the later ones. Patent Owner can rely on these exhibits instead, which should make this motion unimportant to Patent Owner.

Patent Owner, however, submitted a twelve-page opposition that never responded to the merits of Petitioner's motion, and instead resembles a sur-reply Patent Owner neither requested nor merited. Patent Owner also misused its opposition to vilify Petitioner, misrepresent the contents and significance of the exhibits in question, and repeat argument from its Patent Owner's Response (Paper 19).

Because the arguments in Patent Owner's opposition are non-responsive and improper, the Board should strike Paper 37. And because Exhibits 2015, 2018, and 2019 post-date the challenged claims and are needlessly cumulative, the Board should exclude them.

## **II. ARGUMENT**

### **A. Patent Owner's Opposition Supports Petitioner's Motion to Exclude**

Petitioner's motion simply sought to exclude the later version of two books. They are duplicative and needlessly cumulative under Fed. R. Evid. 403 if they are the same as earlier versions of the same books, and inadmissible as "impermissible . . . later knowledge about later art-related facts" if there are differences. *In re Hogan*, 559 F.2d 595, 605 (CCPA 1977).

Patent Owner represents "the relevant information is unchanged across the versions of Dr. Smith's textbook dating back to 1998." Paper 37, at 7 (referring to Exhibits 2017–19). Patent Owner also represents that "a 1991 version of EX2015 . . . contains the same disclosure" as Exhibit 2015. Paper 37, at 8 (referring to Exhibit 2027). If so, Patent Owner can rely on the excerpts from earlier versions of these books, and the Board should grant Petitioner's motion.

### **B. The Board Should Strike Patent Owner's Substantive Arguments as Improper**

Patent Owner improperly used the Opposition to make substantive arguments that belonged in its Response. Motions to exclude "may not be used . . . to prove a particular fact."<sup>2</sup> Office Patent Trial Guide, 77 Fed. Reg. 48,756, 48,767

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<sup>2</sup> This rule is stronger in oppositions, which may only respond to the motion and "must comply with the content requirements for motions." 37 C.F.R. § 42.23(a).

(Aug. 14, 2012). Ignoring that admonition, Patent Owner filed a 12-page opposition to Petitioner's two-page evidentiary motion and addressed purely substantive issues in the case. The section headings of the response lay bare Patent Owner's disregard of the PTAB procedures:

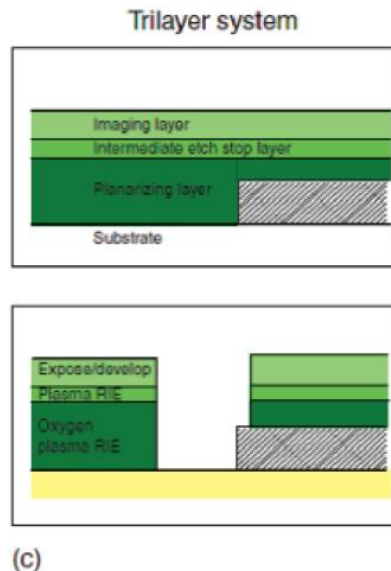
- A. Exhibits 2015 and 2018 and the proper construction of "using the [designated] layer as a mask"
  - 1. EX2018 belies Petitioner's and its Expert's assertions regarding the meaning of "using the [designated layer] as a mask"
  - 2. EX2015 further demonstrates that Patent Owner's construction is correct
- B. Exhibit 2019 and Grill's warning against loss of critical dimension control caused by photoresist profiles having widely varied thicknesses

The Board should not condone Patent Owner's Trojan-horse tactics for filing a sur-reply it never requested, especially when Petitioner has only five pages to respond to the new issues raised.

**C. Patent Owner's Substantive Arguments Misrepresent the Evidence**

Exhibit 2018 is not relevant for any of the reasons Patent Owner offered. Patent Owner again suggests Dr. Smith's book teaches using an intermediate layer as a mask for etching (*see* Paper 37, at 5–6), but cites nothing in the book to substantiate this allegation. No version of Dr. Smith's textbook shows a buried layer playing any role in etching.

Patent Owner also continues to misrepresent that the figure to the right (based on Exhibit 2018) is a physical structure, despite contrary testimony from the author, corroborated by sources cited in the author's work, patents, and other textbooks. *See, e.g.*, Paper 26, at 6–8 & n.2 (and references therein). Dr. Smith explained:



The reason I've drawn the picture the way I did, as I've said before, to show that pattern transfer from top to bottom can retain that same sidewall angle if it's done in a way that I've described. It's not meant to depict what the final result would be, and you can tell that based on the words I've used. I've not labeled these in terms of what they are but the process that's used to transfer those layers, exposed developed plasma RIE and then oxygen plasma RIE.

EX2010 at 62:15–63:2; *see also* EX2010 at 61:14–19; Paper 26, at 6–8 & n.2 (and references therein). Even if this figure depicted an actual structure, neither Dr. Smith's textbook nor any other reference describing a multi-layer resist process suggests a buried layer is used as an etch mask. *See id.*

Patent Owner then falsely suggests "the total patterning layer" in Exhibit 2015 shows a single patterning mask for etching (Paper 37, at 8). Like Exhibit 2018, Exhibit 2015 merely describes a tri-layer process, and never suggests an

intermediate layer acts as a mask. Each layer used in such “[*m*]ultilayer processing techniques” (EX2015 at 7 (emphasis added)) plays a different role during each processing step, and an intermediate layer is never a mask unless the layer above is gone. *See, e.g.*, Paper 26, at 6–8 & n.2 (and references therein).

Patent Owner also incorrectly suggests Exhibit 2019 is relevant “because it demonstrates that a POSITA would not have combined the Grill and Aoyama references.” Paper 37, at 10. Instead, Exhibit 2019 contradicts Patent Owner’s argument that “exposure variations . . . could lead to loss of critical dimension control” in the Grill-Aoyama combination, because it says a “relatively large range of exposure variation can be tolerated” when focusing the exposing light properly. EX2019 at 33; *see also id.* at 35 (Figs. 11.13(a), 11.13(b)) (illustrating the same).

### **III. CONCLUSION**

The Board should exclude Exhibits 2015, 2018, and 2019 for the reasons in Petitioner’s motion to exclude (Paper 30), which Patent Owner never disputed. The Board should further strike Patent Owner’s response as an improper sur-reply.

Dated: August 30, 2017

Respectfully submitted,

By: /Darren M. Jiron/  
Darren M. Jiron, Reg. No. 45,777

***Lead Counsel for Petitioner***

**CERTIFICATE OF SERVICE**

Pursuant to 37 C.F.R. § 42.6(e), this is to certify that I served a true and correct copy of the **PETITIONER'S REPLY IN SUPPORT OF ITS MOTION TO EXCLUDE EVIDENCE UNDER 37 C.F.R. § 42.64(c)** by electronic mail, on this 30th day of August, 2017, on counsel of record for the Patent Owner as follows:

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Patent Owner has agreed to electronic service.

A true and correct copy of the **PETITIONER'S REPLY IN SUPPORT OF ITS MOTION TO EXCLUDE EVIDENCE UNDER 37 C.F.R. § 42.64(c)** was also served by electronic mail, on this 30th day of August, 2017, on counsel of record for Petitioner GlobalFoundries U.S. Inc. at the following:

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IPR2016-01376, IPR2017-00921  
Patent 6,197,696 B1

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