UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE PATENT TRIAL AND APPEAL BOARD

FUJITSU SEMICONDUCTOR LIMITED,
FUJITSU SEMICONDUCTOR AMERICA, INC.,
ADVANCED MICRO DEVICES, INC., RENESAS ELECTRONICS
CORPORATION, RENESAS ELECTRONICS AMERICA, INC.,
GLOBALFOUNDRIES U.S., INC., GLOBALFOUNDRIES DRESDEN
MODULE ONE LLC & CO. KG, GLOBALFOUNDRIES DRESDEN
MODULE TWO LLC & CO. KG, TOSHIBA AMERICA ELECTRONIC
COMPONENTS, INC., TOSHIBA AMERICA INC., TOSHIBA
AMERICA INFORMATION SYSTEMS, INC.,
TOSHIBA CORPORATION, and
THE GILLETTE COMPANY,
Petitioner,

V.

ZOND, LLC, Patent Owner

Patent 6,805,779 B2

IPR Case Nos. IPR2014-00828, 00829, 00917, 01073, 01076

SUPPLEMENTAL DECLARATION OF UWE KORTSHAGEN PH.D. ON BEHALF OF PETITIONER

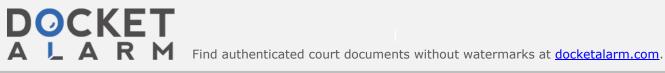


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K.	Dependent Claims 13-15, 27, 35, and 37: Ionizing Excited and Metastable Atoms



I, Uwe Kortshagen, declare as follows:

I. BACKGROUND

- 1. My name is Uwe Kortshagen.
- 2. My background is detailed in my declarations submitted with the original Petition for *Inter Partes* Review Case Nos. IPR2014-00828, 00829, 00917, 01073, and 01076.
- 3. I have reviewed the following publications in preparing this declaration:
 - U.S. Patent No. 6,805,779 (the "'779Patent") (Exs. 1001, 1101, 1201, 1301, 1401)).
 - A. A. Kudryavtsev *et al*, <u>Ionization relaxation in a plasma produced by a pulsed inert-gas discharge</u>, Sov. Phys. Tech. Phys. 28(1), pp. 30-35, January 1983 ("Kudryavtsev" (Exs. 1004, 1104, 1204, 1304, 1404)).
 - U.S. Patent No. 3,761,836 ("Pinsley" (Exs. 1005, 1105, 1205, 1305, 1405)).
 - U.S. Patent No. 3,514,714 ("Angelbeck" (Exs. 1006, 1106, 1206, 1306, 1406)).
 - U.S. Patent No. 5,753,886 ("Iwamura" (Exs. 1007, 1107, 1207, 1307, 1407)).
 - EP 0146509 ("Gruber" (Ex. 1413)).
 - WO 83/01349 ("Wells" (Exs. 1214, 1414)).



- R. F. Post, Proc. of Second U.N. Int'l. Conf. on the Peaceful Uses of Atonic
 Energy, Vol. 32 at p. 245 (Geneva, 1958) ("Post" (Exs. 1016, 1116, 1222, 1316, 1418)).
- 4. Also, I have reviewed papers in the *Inter Partes* Review Case Nos. IPR2014-00828, 00829, 00917, 01073, and 01076, including the Petitions and my accompanying Declarations. Further, I have reviewed the Board's Institution Decisions, Patent Owner's Responses, the accompanying Declaration of Larry D. Hartsough, Ph.D in support of Patent Owner's Responses, and the deposition testimony of Dr. Hartsough given on April 7, 2015 in connection with Case Nos. IPR2014-00828 (Ex. 1223), 00829 (Ex. 1317), 00917 (Ex. 1419), 01073 (Ex. 1017), and 01076 (Ex. 1117).
- 5. I have read and understood each of the above publications and any other publication cited in this declaration. As I stated previously, the disclosure of each of these publications provides sufficient information for someone to make and use the plasma generation and sputtering processes that are described in the above publications.
- 6. I have considered certain issues from the perspective of a person of ordinary skill in the art as described below at the time the '779 Patent application was filed. In my opinion, a person of ordinary skill in the art for the '779 Patent would have found the '779 Patent invalid.



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