UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MICRON TECHNOLOGY, INC., INTEL CORPORATION, AND GLOBALFOUNDRIES U.S., INC. Petitioners

> SAMSUNG ELECTRONICS COMPANY, LTD. <u>Petitioner</u>

> > v.

DANIEL L. FLAMM Patent Owner

Case IPR. No. Unassigned U.S. Patent No. 5,711,849

Title: PROCESS OPTIMIZATION IN GAS PHASE DRY ETCHING

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Petition for *Inter Partes* Review of U.S. Patent No. 5,711,849 Under 35 U.S.C. §§ 311-319 and 37 C.F.R. §§ 42.1-.80, 42.100-.123

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	9.1.1 [1.P] "A device fabrication method comprising the steps of:"	<u>2</u> 4
	9.1.2 [1.1] "providing a plasma etching apparatus comprising a substrate therein, said substrate comprising a top surface	

	and a film overlying said top surface, said film comprising a top film surface;"	<u>25</u>
9.1.3	[1.2] "etching said top film surface to define a relatively non-uniform etching profile on said film, and defining etch rate data comprising an etch rate and a spatial coordinate which defines a position within said relatively non-uniform etching profile on said substrate, said etching comprising a reaction between a gas phase etchant and said film; and"	<u>26</u>
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9.2.3	[10.2] "etching said top film surface to define a relatively non-uniform etching profile on said film, and defining etch rate data comprising an etch rate and a spatial coordinate which defines a position within said relatively non-uniform etching profile on said film of said substrate, said etching comprising a reaction between a gas phase etchant and said film; and"	<u>36</u>
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9.3.2	[20.1] "providing a substrate selected from a group consisting of a semiconductor wafer, a plate, and a flat panel display, said substrate comprising a top surface;"	38

	9.3.3	[20.2] "forming a film overlying said top surface, said film comprising a top film surface;"	38
	9.3 .4	[20.3] "etching said top film surface to define a relatively non-uniform profile on said film, and defining etch rate data comprising an etch rate and a spatial coordinate which defines a position within said relatively non- uniform etching profile of said film on said substrate, said etching comprising a reaction between a gas phase etchant and said film; and"	38
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	9.5.2	[26.1] "providing a plasma etching apparatus comprising a substrate therein, said substrate comprising a top surface and a film overlying said top surface, said film comprising a top film surface"	44

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