



P. (JASMINE) MACHIMA

MAJOR DEPT Engineering Physics

DEGREE PH. D

ADVISOR Prof. Noah Hershkowitz

RESEARCH AREA Plasma Etching

GRADUATION December 2003

KEYWORDS

Oxide Etching with Alternative Gases, Modulated Discharges,
Gate Oxide Damages

Goals

Deep-etch features with high-aspect ratios in SiO₂ with alternative gases
Investigate different mechanisms in defect formations in gate-oxide etching

INTERESTS

Dielectrics etching, such as silicon dioxide and silicon nitride, using modulated discharges

VISA STATUS

F-1 (Permanent Residence Application in Progress)

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P. (Jasmine) Machima (continued)

EDUCATION

9/99-12/03	PhD(expected) University of Wisconsin-Madison, Engineering Physics
12/98	B.S. University of California at Berkeley, Chemical Engineering
12/98	B.A. University of California at Berkeley, Physics

WORK EXPERIENCE

01/99-07/99	CVC Products, Inc. <u>Co-op Engineer</u> : Responsibilities included performing magnetron sputtering depositions for customer demos, maintaining sputtering tools, optimizing deposition processes, and developing new processes for requested applications.
06/98-08/98	Lawrence Berkeley National Laboratory, Berkeley, CA <i>Plasma Applications Group</i> <u>Laboratory Assistant</u> : performed cathodic arc depositions for thin films, high aspect ratio trench filling with copper, current- driven multipole magnet development for homogeneous film deposition, etc.
8/97-12/97	HMT Technology Corporation, Fremont, CA Manufacturing Co-op: Responsibilities included writing and updating operational procedures for manufacturing processes, improving product flows, investigating causes of some discrepant materials, and troubleshooting automation related problems.
9/96-12/96	UC Berkeley, Physics Department Course Reader: Graded homework sets for a senior course in classical mechanics.