2000 *INTERNATIONAL RELIABILITY PHYSICS SYMPOSIUM*

April 10-13, 2000 ● Fairmont Hotel ● San Jose, California

CALL FOR PAPERS

The IRPS promotes the reliability and performance of integrated circuits and microelectronic assemblies through an improved understanding of failure mechanisms operative in the user's environment.

YOUR PAPER OF ORIGINAL WORK IS SOLICITED THAT:

A. identifies new, or improves our understanding of known, microelectronic failure or degradation mechanisms;
B. improves our understanding of how reliability is impacted by circuit design, material, and process selection and control in an environment of aggressive scaling;
C. presents new, innovative, or improved modeling, simulation, or analytical techniques and results; and
D. demonstrates techniques to build-in or extend reliability.

IN THE FOLLOWING SPECIFIC AREAS:

Device and Process
– Reliability Driven Process Interactions
– Reliability of Multiple Dielectric Processes
– SER Upset Mechanisms
– New SOI Reliability Issues

Device Dielectrics
– Oxide Breakdown Mechanisms
– Processing Interactions
– New or Novel Dielectric Systems
– Tunnel Oxides in Non-Volatile Memories

Assembly and Packaging
– BGA, TAB, MCM, KGD
– Stress Modeling, Low-K Issues
– Bonding, MCM, PCB and Connector Related

Channel Hot Carriers
– Oxide Degradation Mechanisms
– Novel Low Power Interaction
– Low Temperature Reliability
– Susceptibility of Alternative Dielectric Materials
– Susceptibility of SOI

Failure Analysis
– New Failure Mechanisms
– Novel Analysis Techniques

Interconnects
– EM Phenomena in Al and Cu Systems
– Inter/Intra Level Reliability Issues
– Mechanical Stress Related Reliability Issues
(*film/line, stress-voiding, hillocking, adhesion*)
– Reliability of New or Novel Metal/Dielectric Systems
– Thermal & Mechanical Issues

ESD and Latch-Up
– Novel Structures Including SOI
– Damage Interpretation

Process Induced Damage
– Latent Damage Characterization
– Reliability Degradation Associated with Damage
– Early Detection and Reliability Analysis

Micro-Electro Mechanical Systems (MEMS)
– Reliability of new Structures, Sensors, Actuators

Yield Enhancement Effects on Reliability
– Correlation Between Yield, Infant Mortality, Burn-In
– Reliability Effects of Particulate Control

Non-Silicon Device Reliability
– GaAs, LEDs & Diode Lasers, Flat Panel Displays
– Optical Fiber Transmission Lines
– Packaging

Submission Deadline (Abstracts Must Be Received By): September 10, 1999

Abstract Preparation: Paper acceptance is based entirely on abstract submission. Your work must be *original* and *unpublished*. Your abstract shall be a **maximum of two pages long**, and shall clearly and concisely state the specific results of your work, why it is important, and how it relates to prior work. The abstract may include line drawings, key references, and photographs as necessary within the two-page limit. Also we require a 50-word summary of your work and a cover page indicating the category of submission from the above listing, as well as the authors' affiliation, addresses, phone and FAX numbers and e-mail addresses.
Submission: Abstracts will be accepted in either electronic (*preferred*) or paper format. All submissions will be acknowledged within three weeks. If you do not receive acknowledgment of your submission, please contact the Technical Program Chair. Electronic submission details and additional instructions are on http://www.irps.org/tpc/eabstrct.htm.
Express Mail: We require 1 copy of your one-page, 50-word summary and 1 copy of your 2-page abstract.

Mail to: William R. Tonti, Technical Program Chair, 2000 IRPS
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–over–

LATE PAPERS: A limited number of excellent late papers reflecting important breakthrough developments can be considered on a space-available basis. Abstract and summary must be received ***no later than November 23, 1999*** to be considered. Late papers must still meet the publication deadline stated below.

PROCEEDINGS MANUSCRIPT: Final, camera-ready manuscripts must be received by ***January 29, 2000*** so that the proceedings can be available at the Symposium.

SPONSORS: The Electron Devices Society and the Reliability Society of The Institute of Electrical & Electronic Engineers, Inc. are the sponsors of the 2000 IRPS.

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April 10 – 13, 2000 IRPS

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