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Kent Ridge Post Office  
P O Box 1129  
Singapore 911105

**FINAL CALL FOR PAPERS**

# 8th INTERNATIONAL SYMPOSIUM ON THE PHYSICAL AND FAILURE ANALYSIS OF INTEGRATED CIRCUITS

## IPFA 2001

9 - 13 July 2001

**The Westin Stamford & Westin Plaza,  
Raffles City Convention Centre  
Singapore**

**Organised by:**  
**IEEE Reliability/CPMT/ED**  
Singapore Chapter



**IEEE**

**Co-sponsored by:**  
**IEEE Electron Device Society**



**In Cooperation with:**  
Centre for Integrated Circuit Failure Analysis and Reliability (CICFAR) - NUS  
Institute of Microelectronics, Singapore

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## Secretariat

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**IPFA 2001** is organised by the IEEE Reliability/CPMT/ED Singapore Chapter in co-operation with the Centre for Integrated Circuit Failure Analysis and Reliability (CICFAR), NUS and the Institute of Microelectronics (IME). The Symposium is technically co-sponsored by the IEEE Electron Device Society.

The Symposium will be devoted to the fundamental understanding of the physical mechanisms of device failures and issues related to device reliability, especially those related to advanced process technologies.

A three-day exhibition of FA equipment and services will be held concurrently with the Symposium.

**SUBMISSION OF PAPERS (Abstract Dateline Submission Extension)**

Authors are requested to submit fifteen (15) copies of a two-page summary (inclusive of a 50-word abstract, figures & references) in Adobe Acrobat PDF format file to the Technical Program Chairman (c/o IPFA 01 Secretariat) by **31 December 2000**. The summary should state clearly and concisely the specific results of the work, why the results are important and how the results relate to previously reported work. Your work must be original and previously unpublished. Your submission should contain the name, affiliation and address of each author, and the telephone number, fax number and email address of the corresponding author. The category of submission from the listed areas should also be stated clearly in your submission. Please note that all submissions must be in English.

**IPFA Secretariat**  
**Mrs Jasmine Leong**  
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**Singapore 91 1105**  
Tel: (65) 743 2523, Fax: (65) 746 1095  
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**IMPORTANT DATES**

- 1 December 2000** - Submission of Summary and Abstract
- 5 February 2001** - Notification of Paper Acceptance
- 5 April 2001** - Submission of Camera-ready Manuscript

For further information about the Symposium and Technical Programme, please contact:

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**TECHNICAL PROGRAMME**

The Symposium will focus on the areas listed below with contributed and invited papers and Tutorials. The Technical Program Committee is inviting paper submission on original research work in the following or related areas.

**Advanced Failure Analysis Techniques**

- Physical, chemical and electrical analysis techniques for fault isolation and failure identification
- Novel techniques including optical beam, electron beam, ion beam and scanning probe techniques

**Dielectrics and Hot-Carrier Reliability**

- Time dependent dielectric breakdown
- Oxide degradation mechanisms and modelling
- Plasma induced damages - characterization techniques, mechanisms and modelling
- Tunnel oxides in non-volatile memories
- Hot-carrier effects - measurement techniques and modelling

**EOS/ESD and CMOS Latchup**

- Effects of ESD on specific devices and new protection structures
- Latent damages and damage interpretation
- ESD modelling and measurement techniques
- CMOS latchup characterization and modelling

**Packaging and Metallization Related Failure Mechanisms**

- Electromigration studies and modelling
- Contact degradation and related issues
- MCM, BGA, CSP, Flip-chip and other advanced packaging related failure mechanisms
- Package stress modelling and characterization
- Fine pitch wire bonding and solder joint reliability

**Practical Issues in Building-in-Reliability**

- Reliability engineering emphasizing design and process aspects
- Process control in wafer processing and reliability
- Assembly related issues in device reliability

**Reliability and Failure Analysis in Specialist Devices**

- Power semiconductor devices
- Optoelectronic devices
- Compound semiconductors
- Micro Electro-Mechanical Systems

**TUTORIALS**

Four half-day tutorials will be held in conjunction with the Symposium. The tutorials will deal with areas on failure analysis techniques and device reliability issues.

**8th International Symposium on the Physical and Failure Analysis of Integrated Circuits**

**IPFA 2001**

**The Westin Stamford & Westin Plaza,  
Raffles City Convention Centre  
Singapore  
9 - 13 July 2001**

(Please use typewriter or write in block capitals)

**Name:** (Prof./Dr./Mr./Mrs./Ms.) .....

**Organisation:** .....

**Address:** .....

**Postal Code:** ..... **City:** .....

**Country:** .....

**Tel:** ..... **Fax:** .....

**Email Address:** .....

- I intend to attend the Symposium
- I intend to submit a paper to IPFA '01 before **31 Dec 2000**
- I need further information

**Title of paper:** .....

**Send this Call for Papers also to:** .....

**Address:** .....