2009 International Conference on Semiconductor Technology for Ultra Large Scale Integrated Circuits and Thin Film Transistors (ULSIC vs. TFT)

Editor:

Y. Kuo
Texas A&M University
College Station, Texas, USA

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Telephone 609.737.1902
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PREFACE

This issue of ECS *Transactions* includes 33 papers that were presented at the Second International Conference on Semiconductor Technology for Ultra Large Integrated Circuits and Thin Film Transistors (ULSIC vs. TFT II), held in the Xi'an Garden Hotel, Xian, China, July 5-10, 2009. This symposium was sponsored by the Engineering Conferences International.

This conference provided a forum on the latest developments in the two largest semiconductor industries, i.e., ULSIC and TFT-LCD. Global experts from universities, industry, and governments exchanged their experience, knowledge, and visions through technical presentations and discussions during the presentation time, brainstorming sections, and afternoon and evening breaks. Future scientific and technology challenges were forecasted and debated. A large number of graduate students from various countries presented poster papers and were engaged in discussions. Participants were from Belgium, Canada, China, France, Germany, Hong Kong, India, Japan, Korea, Singapore, Netherlands, Taiwan, UK, and the USA.

The plenary speeches were dedicated to 1) Technology Development Strategy of Chinese IC Fabrication by T. Ye of Institute of Microelectronics, Chinese Academy of Sciences, Beijing, 2) An Overview of NEDO's Electronics Technology Development Projects by A. Ando of NEDO, Japan, and 3) Reliability and Optimization by W. Kuo of City University of Hong Kong. In total, 81 papers were scheduled into the following sections:

- Plenary
- Modeling, Simulation, and Scaling
- Challenges in ULSI Gate Dielectrics–
- Challenges in Si-based TFT Technology
- Challenges in ULSI Substrates and Materials
- Challenges in TFT Materials-
- Challenges in Advanced ULSI Processes-
- Challenges in Flexible Electronics
- Challenges in New Devices and Applications-
- Challenges in Nano Devices
- Posters

The conference also included three panel sessions on 1) Challenges in Devices and Scaling, 2) Challenges in Materials and Applications, and 3) Challenges in ULSIC and TFT Fabrications.

In order to present subjects in a coherent manner, papers in this issue of ECS *Transactions* have been arranged into six sections. All manuscripts are published as originally received, without alteration of technical contents.

The success of this conference is contributed by seamless efforts among conference co-chairs Professors M. Shur, W. Milne, S. Xiong, and D. Ast, who were

involved in coordination, organization, and collaboration of many critical activities. The local chair Professor C. Liu and committee member Professor S. Wu played important roles in communicating with central and local Chinese governments and the Xi'an Jiaotong University as well as offering many valuable advices and services.

The following people are greatly appreciated for various conference activities:

- Plenary and invited speakers for their presentations and panel discussions
- Session chairs for conducting the meeting
- Authors and presenters for their participation
- Scientific advisory committee members for their contributions in planning and coordinating the program
- Dr. N. Li for valuable suggestions and serving as the conference ECI liaison
- Mr. C.-H. Lin for his administrative supports
- ECI staffs for effectively management of the conference
- the Staff of the Electrochemical Society for professional work in publishing this issue of ECS *Transactions*.

Yue Kuo
Texas A&M University

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***ECS Transactions*, Volume 22, Issue 1**
2009 International Conference on Semiconductor Technology for Ultra Large Scale Integrated Circuits and Thin Film Transistors (ULSIC vs. TFT)

Table of Contents

Chapter 3
Challenges in ULSI Substrates, Materials and Processes

Chapter 4
Challenges in Advanced TFT Processes

Chapter 5
Challenges in Modeling, Simulation, and Scaling

Chapter 6
Challenges in New and Nano Devices and Applications

** = invited paper*