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Thin Film Transistors 12

(TFT 12)

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PREFACE

This issue of *ECS Transactions* contains papers presented at the 12th Symposium on Thin Film Transistor Technologies (TFT 12) held in Cancun, Mexico, October 6-8, 2014. These papers are divided into 4 chapters. This symposium was sponsored by the Electronics and Photonics Division (EPD) of The Electrochemical Society.

The editor wishes to express his sincere appreciation to the following people for their involvement in organizing and conducting the symposium: authors and presenters of papers, symposium co-organizers, section chairs, my graduate assistants, and ECS staff.

The TFT 11 symposium includes 8 oral presentation sessions: Silicon-based TFTs I, Silicon-based TFTs II, Organic and New Material Based TFTs, Oxide TFT Processes I, Oxide TFT Processes II, Oxide TFT Stability, Applications I, and Applications II. In addition, a Poster section is held in the evening of October 7. A total of 34 papers are presented by authors from industry, research institutes and universities of 8 countries or regions, *i.e.*, France, Netherland, Italy, Hong Kong, Japan, Korea, UK, and USA. All papers are published as received, without alteration of their technical contents, except for formatting.

The following is an observation of the general trend on the TFT technology development judged from this symposium:

- There are continuous interests in Si-based TFTs. The studies are focused on new device designs beyond the n-type TFT applications, high speeds, and improved fabrication processes
- There are strong interests on oxide TFTs. The studies are aimed at understanding and solving the limitations on the performance and stability of the device through using new materials, structures, and processes. In addition to sputtering, there are reports on the solution based fabrication processes.
- TFTs based on new inorganic and organic semiconductors are being developed for various applications.
- New applications on various types of TFTs for sensing and memories have been explored. Limitations of TFTs on various applications have been investigated. The higher education in microelectronics and nanotechnologies related to TFTs in France has been reviewed.

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The Electrochemical Society (ECS) is an international, nonprofit, scientific, educational organization founded for the advancement of the theory and practice of electrochemistry, electronics, and allied subjects. The Society was founded in Philadelphia in 1902 and incorporated in 1930. There are currently over 7,000 scientists and engineers from more than 70 countries who hold individual membership; the Society is also supported by more than 100 corporations through Corporate Memberships.

The technical activities of the Society are carried on by Divisions. Sections of the Society have been organized in a number of cities and regions. Major international meetings of the Society are held in the spring and fall of each year. At these meetings, the Divisions and Groups hold general sessions and sponsor symposia on specialized subjects.

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Electrochemical and Solid-State Letters — (ESL) was the first rapid-publication electronic journal dedicated to covering the leading edge of research and development in the field of solid-state and electrochemical science and technology. ESL was a joint publication of ECS and IEEE Electron Devices Society. Volume 1 began July 1998 and contained six issues, thereafter new volumes began with the January issue and contained 12 issues. The final issue of ESL was Volume 16, Number 6, 2012. Preserved as an archive, ESL has since been replaced by SSL and EEL.

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