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# Thin Film Transistors 11 (TFT 11)

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## PREFACE

This issue of *ECS Transactions* contains the 39 papers presented at the 11<sup>th</sup> Symposium on Thin Film Transistor Technologies (TFT 11), held in Honolulu, Hawaii, October 8-10, 2012. 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 student Chi-Chou Lin, and the ECS staff.

The TFT 11 symposium includes nine oral presentation sessions: Oxide TFTs and Fabrication Process I, Oxide TFTs and Fabrication Processes II, Oxide TFT Device and Reliability, Si-based TFTs I, Si-based TFTs II, Graphene and Organic TFTs, TFT Structures and Materials, Advanced Applications, and Novel Materials and Processes. In addition, a Poster section was held in the evening of October 9. A total of 56 papers are presented by authors from industry, research institutes and universities of 10 countries or regions, *i.e.*, Canada, China, France, Germany, Holland Japan, Korea, Taiwan, the United Kingdom, and the United States of America. All papers are published as received, without alteration of their technical contents.

While the symposium series start the third decade, papers presented in this meeting show some interesting trends on the technology development.

- First, the interest in the Si-based TFTs is still strong. The direction is toward the improvement of mobility, *e.g.*, by forming polycrystalline and nanocrystalline Si or the non-FET structure.
- Second, there are many discussions on oxide TFTs. They can be summarized in two areas: exploring the fabrication methods and improving the reliability. Although the mobility of the oxide TFT can be an order of magnitude higher than that of the *a*-Si:H TFT, issues in the above two areas need to be solved before practical applications, *e.g.*, in mass production of large-area displays or electronics.
- Third, there are continuous research interests in organic and graphene TFTs, *e.g.*, in improving device performance.
- Fourth, TFT applications beyond the traditional rigid LCDs have been constantly explored. New functions, AMOLED, and flexible electronics are areas that attract research efforts.

## **Thin Film Transistor Technologies 11 Symposium Co-Organizers**

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P. Migliorato (Cambridge University)  
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