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FOREWORD

Special Section on Recent Progress in Molecular and Organic Devices

The organic materials are progressively increasing their importance as electronic materials. The research topics span all kinds of electronic materials including insulators, semiconductors, conductors, and even superconductors. Researches are blooming not only in their fundamental aspects but also in their applications to such devices as transistors, memories, light emitting devices, photovoltaic, photonic devices, sensors, and actuators. Recent growth in research activity can also be found in bio-related applications.

The Technical Committee of Organic and Molecular Electronics (OME) of the Electronic Society of the Institute of Electronics, Information and Communication Engineers (IEICE) has been organizing conference of International Symposium on Organic Molecular Electronics (ISOME) with a purpose to survey up-to-date research status in this field and gain insight into the organic materials and devices that can open a new era in electronics in the 21st century. Following the first symposium in 2000, ISOME has been held biannually, and has established its position as one of the important international activities of the Electronics Society of IEICE. These symposia were made possible by the invaluable support from the Electronic Society.

The 7th ISOME (ISOME 2012) was held successfully in June 2012 at NTT Musashino Research and Development Center in Tokyo. At this symposium, important reports on the cutting-edge researches were presented by 12 invited speakers in addition to the plenary lecture by Prof. Ohmori (Osaka University). Total number of contributed papers was 47, including 19 poster presentations. ISOME 2012 covered such sessions as preparation and characterization, characteristics of organic materials, electronic devices, optical and photonic devices, and bio-related devices.

In connection with ISOME 2012, the Technical Committee of OME called for a Special Section on Recent Progress in Molecular and Organic Devices in the IEICE Transactions on Electronics. The objective of this special section is to compile the up-to-date information of the progress of organic and molecular electronics and related topics, as well as to encourage the contribution of papers to this journal from the community of organic and molecular electronics. This special section includes two submissions from the invited speakers at ISOME 2012, and reflects the forefront of the international research trend in this field. Pertinent special sections and special issues have been published in the IEICE Transactions on Electronics biannually since 2000 (Vol. E83-C). Collection of these issues reveals the lively history of researches related to organic and molecular electronics, and inspires us the future prospect and new concepts that can bring a new paradigm in the future of electronics.

The guest editors of this special section would like to express their sincere acknowledgement to the organizing committee of ISOME 2012, the editorial committee of this special section, as well as the Electronic Society of IEICE.

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Tohru Maruno *(Member)* received B.S. in 1977, M.S. in 1980, and Ph.D. degrees in 1977, 1980 and 1997, respectively, from the Department of Polymer Chemistry of Kyoto University, Japan. In 1980, he joined NTT Electrical Communications Laboratories, Tokyo Japan. He has been engaged in research on polymer optical waveguide devices. He has been the manager of Complex Optical Device Group of Photonics Research Laboratory, Three Branches Supervision Manager, and General Manager of Energy and Environment Systems laboratory of NTT. Since 2009, he has been a Director and General Manager of Advanced Products Division of NTT Advanced Technology.

Hiroaki Usui *(Member)* received B.E., M.E., and Ph.D. degrees in 1980, 1982 and 1988, respectively, from the Department of Electronics of Kyoto University. From 1985 to 1991 he was a research associate at the faculty of engineering of Kyoto University. Since 1991, he has been a faculty member of Tokyo University of Agriculture and Technology, and since 2007 he has been a professor in the Department of Organic and Polymer Materials Chemistry. In 1994, he was with Max-Planck-Institute for Polymer Research as a visiting scientist. His current interest is in the optical and electronic applications of organic thin films from the standpoint of the film processing technology.