

**International Symposium
on
Organic Molecular Electronics
Proceedings**

May 18 and 19, 2000
Symposium, Nagoya University
Nagoya, Japan

Electronics Society of IEICE
(Institute of Electronics, Information and Communication Engineers)



PREFACE

The International Symposium on Organic Molecular Electronics (ISOME 2000) will be held on May 18 and 19, 2000, Nagoya University, Nagoya, Japan. The ISOME is sponsored by IEICE (the Institute of Electronics, Information and Communication Engineers) Committee on Organic Material Electronics, with co-sponsorship by IEEJ (the Institute of Electrical Engineers, Japan) Technical Committee on Dielectrics and Electrical Insulation, JSAP (the Japan Soc. of Applied Physics) Committee on Organic Molecules and Bio-Electronics, IEEJ Tokai Section, IEEE Nagoya Section and Nagoya University.

Much progress in the field of Organic Molecular Electronics will be expected in early next century. Recently, new organic devices such as organic EL devices, organic sensors and non-linear optical devices have attracted much attention. In such a situation, the purpose of ISOME 2000 is to provide an opportunity for people, who are interested in Organic Molecular Electronics, to come together in an informal and friendly atmosphere and exchange their technical information and experience. I am sure that this International Symposium is very useful and fruitful for all participants to summarize the recent progress in Organic Molecular Electronics and prepare a new step to the 21st century.

Many papers have been submitted from various countries and about 50 papers have been accepted for presentation. All the papers accepted will be presented and published in English. Main topics of interest are as follows ;

1. Organic EL (Electroluminescence)
2. Organic Sensors
3. Optics and Bio-Electronics
4. Thin Films and Their Applications
5. Ultra Thin Films and Their Applications

The program of this symposium consists of four Plenary Sessions for invited talks in the morning and eight Oral Sessions in the afternoon. Oral Sessions are planned as parallel sessions for effective and fruitful presentation and discussion. Besides, about 30 papers will be selected from the papers presented in ISOME 2000 and they will be published in the Special Issue on Organic Molecular Electronics of IEICE Trans.

This symposium has been planned and organized by the IEICE Committee on Organic Material Electronics (Chair : Prof. K. Tanaka, Chiba University), the Organizing Committee (Chair : Prof. T. Mizutani, Nagoya University) and the Program Committee (Chair : Associate Prof. S. Morita, Nagoya University). I am greatly in debt to their chairs and members, without whose enthusiastic effort this symposium would not have been possible. I

would like to express my sincere gratitude to staff and students of Nagoya University for their kind help. Finally, I am grateful to the following organizations for their financial support.

The Institute of Electronics, Information and Communication Engineers
Nagoya University Foundation
Shinsei Foundation
Research Foundation for the Electrotechnology of Chubu
Daikou Foundation

Welcome to Nagoya. I hope that you will have a fruitful and enjoyable time here in Nagoya.



Teruyoshi Mizutani

ISOME 2000, Chair, Nagoya University, Japan

The Symposium is held under auspices of IEICE (Institute of Electronics, Information and Communication Engineers).

Co-sponsored by

1. Nagoya University
2. Technical Committee on Dielectrics and Electrical Insulating Materials, IEEJ
(Institute of Electrical Engineers of Japan)
3. Division of Molecular Electronics and Bioelectronics, Japan Society of Applied Physics
4. Tokai Branch of IEEJ
5. IEEE (Institute of Electrical and Electronics Engineering), Nagoya Section

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4. Shinsei Foundation

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Masahiro Tawata	: Optics and Bio Electronics
Tatsuo Mori	: EL

Accountant: Masahiro Tawata**Inspector:** Mitsuyoshi Onoda

PROGRAM

May 18 (Thursday), Morning at Symposion Hall

- **Opening Ceremony** AM 9:40–9:50
 Chairperson: S. Morita (*Nagoya University, Japan*)

Opening Talk
 Teruyoshi Mizutanim
 Chairman of Organizing Committee, Nagoya University, Japan
- **Special Session (Plenary Talk)** AM 9:50–10:30
 Chairperson: K. Tanaka (*Chiba University, Japan*)

SS-0 Biomimetic Chemical Sensing Systems
 Toyosaka Moriizumim 1
 (*Tokyo Institute of Technology, Japan*)
- **Session I (Invited Talk)** AM 11:00–12:30
 Chairperson: K. Seki (*Nagoya University, Japan*)

SI-1 Energy Level Alignment in Metal/Organic Interfaces
 Yongli Gao 7
 (*University of Rochester, USA*)

Chairperson: T.D. Lee (*Inha University, Korea*)

SI-2 High efficiency organic electrophosphorescent diodes
 Chihaya Adachi, Marc A. Baldo, Paul. E. Burrows, Mark E. Thompson and
 Stephen R. Forrest 8
 (*Princeton University, USA*)

Chairperson: M. Onoda (*Himeji Institute Technology, Japan*)

SI-3 Organic light emitting devices: from Alq₃ to liquid crystalline materials”
 Pierre Destruel, Jean Farenc, Pascale Jolinat, Isabelle Seduy, and
 Harald Bock 9
 (*Universite Paul Sabatier, France*)

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- **Session II (Electro Luminescence)** PM 1:30–3:30
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 K. Kudo (*Chiba University, Japan*)

SII-1 Transient behavior of electroluminescence from multilayer devices with
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 (*National Institute of Materials and Chemical Research, Japan*)

SII-2 Characteristics of Electroluminescence of poly(3-hexylthiophene) using
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Chairpersons: P. Destruel (<i>Universite Paul Sabatier, France</i>) C. Adachi (<i>Princeton University, USA</i>)		
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May 18 (Thursday), Afternoon at Room B

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Chairpersons: T. Nakamoto (*Tokyo Institute of Technology, Japan*)
I. Kubo (*Soka University, Japan*)

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(*Nara University of Education, Japan*)
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(*Tokyo Institute of Technology, Japan*)

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Chairperson: H. Sasabe (*Chitose Institute of Science and Technology, Japan*)

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