

**1998-2001 Triennial Report of Electronic Materials and Processing Division****(October 28, 2001)**

- (1) The EMP Divisional Statutes were approved in the original form by all members of the Electoral College in April, 1999.
- (2) The 1st IUVSTA Summer School on Quantum Devices and Nanostructures was held in Cortona, Italy on July 18-24, 1999. The sponsoring divisions were the EMP Division and the Nanometer Science Division. The School was conducted by Dr. G. E. McGuire (USA), Prof. F. Beltram (Italy) and Prof. M. Sancrotti (Italy). The intent was to give tutorial lectures on fundamentals of nanometer-scale science and technology with a special emphasis on quantum devices. The school was intended for graduate students, post-doctoral scientists, and young faculty members at the early stages of their career. Topics were quantum structures and devices considering growth methods of specimens, transport and optical properties, chemical-physical evaluation techniques, etc. The number of participants was about 40 from the world and it was successful.
- (3) The 29th IUVSTA Workshop on Selective and Functional Deposition Technologies as Applied to ULSI Technology was held on November 19-24, 2000 in Ise-Shima Royal Hotel, Mie, Japan, which was sponsored by the EMPD and cosponsored by the Thin Film Division. The Workshop was jointed with the 2nd International Workshop on Development of Thin Films for Future ULSI's and Nano-Scale Process Integration, which was sponsored by the "Research for the Future" Research Project of the Japan Society for the Promotion of Science (JSPS). The chairperson of the Workshop was Prof. Y. Yasuda (Japan), and the program chair was Dr. G. E. McGuire (USA). The purpose of the Workshop was to discuss important problems of the development of new materials and growth techniques for various ULSI thin films in order to realize the future nano-scale ULSIs. The number of papers presented in the Workshop amounted to 79, consisting of 15 invited and 64 contributed papers. The total number of participants was 94, including 13 persons from USA and Europe, and 1 person from Korea. We could successfully perform the Workshop.
- (4) The 2nd International School on Quantum Devices and Nanostructures was held at Erice, Trapani, Italy on July 19-27, 2001. The directors were Dr. G. E. McGuire (USA), Prof. F. Beltram (Italy) and Prof. M. Sancrotti (Italy). This School was held in the broader framework of the International School of Solid State Physics of the Ettore Majorana Centre and Foundation for Scientific Culture in order to emphasize the close link between the numerous applications of nano-science and many underlying fundamental aspects of solid state physics. The intent was to provide tutorial style lectures by 10 experts in the field in a Gordon Conference format where

## **ECM-88-10C-02**

## **ECM-88-10C-02**

afternoons are free for discussions. Presence of the attendees from different European countries, as well as from USA and Japan indicated the world-wide interest in these topics.

(5) The 33rd IUVSTA Workshop on diamond, diamond-like carbon, carbon nanotubes, nitrides and silicon carbide will be held in Campos do Jordão City, Brazil on November 28-30, 2001, which is in conjunction with the IV Brazilian Conference in this series. Dr. Gary McGuire from USA has been organizing the holding of the Workshop and Co-Chairs are Professor M. C. Salvadori from Brazil and Professor R. Jackman from UK. The workshop will have an international flavor with invited speakers from around the world.

(Reported by Y. Yasuda : Chair of EMPD)