

Materials Research Activities in Europe

Course on Crystal Growth Held at International School of Erice, Italy

The Ettore Majorana International Center in Erice, Sicily is well known for its activity in promoting scientific culture, international conferences, and schools. Every year the school program includes some specific courses devoted to materials science. The subject of the 13th course of the International School of Crystallography, held in September 1987, was "Crystal Growth in Science and Technology."

The aim of the school was to stress the interdisciplinary nature of the subject, reviewing on an advanced tutorial level selected fundamental principles of crystal growth and analyzing important crosslinks between a variety of basic and applied aspects.

Twenty-six selected lecturers, members of the main research institutions of the United States and Europe, covered the main aspects of crystal growth science and its applications in industrial crystallization. The two-week course was attended by more than 100 young scientists working on different crystal growth problems in both basic research and industry. There were particularly lively discussions about new ceramic superconductors, advanced technologies for epitaxial layer preparation, and innovative methods for low-cost, high-perfection large semiconducting compound crystals. Crystal shaping processes, dendritic growth and analysis of twinning formation were the

other main topics of the course.

The Erice medieval atmosphere, the splendid Sicilian beaches, and the lovely social life organized by Prof. L. Riva di Sanseverino and his secretarial committee greatly contributed to the success of the course. The course was sponsored by NATO and by the Italian National Research Council (Consiglio Nazionale delle Ricerche). Prof. Hans Arend from Zurich Polytechnical was the director.

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Eighth European Photovoltaic Solar Energy Conference to be Held in Florence, Italy

The Eighth European Photovoltaic Solar Energy Conference will be held May 9-13, 1988 in Florence, Italy. Sponsored by the Commission of the European Communities, the conference will cover all aspects of the photovoltaic activities from laboratory devices to whole photovoltaic systems, materials research to economic and market analysis, and university research to industrial production. Progress in storage techniques has been added to the list of subjects for invited and contributed papers, and an exhibition will give industries an opportunity to present their latest achievements.

Italy, the host country of the conference, has an established tradition in the applications of solar energy. Having conducted pioneering activities in photovoltaics, Italy now has an ambitious program

of research and development covering crystalline solar cells as well as thin-film techniques.

The conference program will cover the following subjects:

1. Materials research—fundamental studies on materials, theories, diagnostics, low-cost feedstocks, sliced sheets, and ribbons.
2. Crystalline devices—silicon and other semiconductors.
3. Thin-film devices—amorphous silicon, alternative cells and thin-film deposition on crystalline substrates.
4. Applications and system development—systems and their components, including array structures, control and storage; utility interface issues, including power quality; appropriate systems for remote uses, maximizing energy output, including energy efficient equipment and appliances; market analyses; and system modeling.
5. Tests and trials—performance rating of cells, modules, arrays, and simulators; test procedures, norms and standards; calibration of sensors and PV devices; systems monitoring techniques; and experiences with data acquisition systems.
6. Advanced storage for photovoltaics—new batteries, fly-wheels, hydrogen technology, etc.

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E-MRS Seeks Nominations for Board of Delegates

In accordance with the statutes of the European Materials Research Society, elections will take place in 1988 to nominate the E-MRS Board of Delegates. The Board of Delegates has the power of decision in E-MRS and, among other functions, elects the members of the Executive Committee in charge of the current management of E-MRS. The mandate of a member of the Board of Delegates is four years.

According to E-MRS President Paul Siffert, "The elections are very important for stimulating the dynamics of the E-MRS and ensuring its democratic life style. We rely upon the dynamism and enthusiasm of our European colleagues in joining the Board of Delegates and providing a large

number of candidates."

The election schedule is as follows:

1. E-MRS members who wish to become members of the Board of Delegates should send their resume (maximum 100 words) by **July 1, 1988** to the E-MRS President:

P. Siffert
Centre de Recherches Nucléaires
Laboratoire "PHASE"
67037 Strasbourg, France

2. Elections will take place in October 1988 by mail. Details will be included in the ballot sent to each E-MRS member.

3. Election results will be announced during the E-MRS Fall Meeting scheduled November 8-10, 1988.

National Research Council of Italy Sponsors Research on Materials and Devices for Solid State Electronics

Since 1986 the National Research Council, Consiglio Nazionale delle Ricerche (CNR), of Italy has supported a national research program for developing microelectronic materials and devices. In five years this project will support basic and applied research, with an overall budget of 126.2 billion lire (about \$100 million U.S.). The goal of this project is to coordinate and implement research carried out by industrial companies, universities, and CNR institutes on solid state electronics. In 1987, 64 industrial groups, 80 university groups, and 51 CNR groups were engaged in research to develop microelectronic materials and devices. These participants include nearly all the scientific and technological community