SEMICONDUCTORS

An MRS-Europe Symposium Report

The symposium on "Poly-, Microcrystalline and Amorphous Semiconductors" consisted essentially of two main topical sections: one devoted to bi- and poly-crystalline semiconductors, and the second to micro-crystalline and amorphous semiconductors.

The first section of the symposium included six invited presentations, and 10 contributed papers, while 42 research topics were displayed in poster format. The topics of this section were heavily focused upon the structure of grain boundaries as revealed via electron microscopy, and the passivation of these boundaries by hydrogen and other materials. An important aspect of the contributions in this section was the discussion of methods for the growth of bicrystals and polycrystals by a host of techniques: directional solidification, either by bulk crystallization or by a multiphase plasma process, or by the liquid encapsulation "Polyx" process. Finally, several contributions concerned the electrical properties of polycrystalline semiconductors as well as their applications. Of these, the majority was concerned with the electrical properties of grain boundaries in silicon. Other materials were, however, also investigated. In the area of applications, photovoltaic and microelectronic issues were predominant.

In the second section of this symposium, two plenary lectures, six invited papers, 18 oral presentations, and about 40 posters were given. The plenary lectures on basic and applied aspects of amorphous silicon, given by Professor Stuke of Marburg ("Basic Electronic Properties of Amorphous Silicon") and Professor Spear of Dundee ("The Deposition and Device Applications of Glow Discharge Amorphous Silicon") attracted a large audience of about 300 scientists. This second section of the symposium was devoted primarily to amorphous and microcrystalline silicon. In particular, electronic and optical properties, preparation and devices, and structural problems were discussed. The symposium ended with a session on microcrystalline and amorphous semiconductors other than silicon.

S. KALBITZER (left) and P. PINARD

Based upon the interest shown in the topics of this symposium, we expect that similarly designed symposia will attract substantial audiences both from within and without Western Europe in the coming years.

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Lyon, France

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SITUATIONS WANTED

The MRS BULLETIN accepts situations-wanted announcements from its members for display in these pages without charge. A maximum length of 75 words is imposed, and the BULLETIN reserves the right to edit announcements for length and conformity of style and abbreviation.

MATERIALS SCIENTIST: Ph.D. Metallurgist with 16 years of industrial research experience in electronic materials seeks employment in the Northeastern U.S. Experience in electron microscopy, thin film deposition, etching, and defect characterization. 67 publications, 3 patents. University, government, or industrial research position with emphasis on basic phenomena is desired. U.S. Citizen.
Replies to: MRS Headquarters, Box 471, 9800 McKnight Road, Suite 327, Pittsburgh, PA 15237

MATERIALS SPECIALIST with strong organizational skills seeks leadership position in materials research. Ph.D., 118 publications, 10 patents, in excess of 15 years of materials research experience with major electronics laboratory. Technical skills include transmission and scanning electron microscopy, x-ray diffraction, optical microscopy, thermal analysis, magnetic property measurement, thin film deposition and patterning, and device fabrication. Experienced project and team leader, familiar with proposal writing, presentation, and reporting. I seek a leadership position with high visibility and growth potential. Location unimportant. U. S. Citizen.
Replies to: MRS Headquarters, Box 472, 9800 McKnight Road, Suite 327, Pittsburgh, PA 15237