

Southern California Section Holds Inaugural Meeting

The Southern California Section of the Materials Research Society was officially chartered on March 4, 1986 during its inaugural meeting. Approximately 30 people gathered to witness the Southern California Section receive its charter from Gordon Pike, President of MRS, and to hear Terry Cole, chief technologist at the Jet Propulsion Laboratory (JPL), talk about work currently in progress at JPL. Speaking on behalf of the Society, Pike highlighted the growth of MRS over the last 15 years and presented the charter to Section President Anupam Madhukar.

Election results for the new Section officers were announced. The officers have the formidable task of creating the Section and initiating the practices and policies that will enable the Southern California Section to become an active participant in MRS. The newly elected officers of the Section are:

President: Professor Anupam Madhukar
Dept. of Materials Science and Physics
Vivian Hall of Engineering
University of Southern California
University Park
Los Angeles, CA 90089-0241
Vice-President: Professor Kang Wang
Dept. of Electrical Engineering
Rm. 7619 Boelter Hall
University of California
Los Angeles, CA 90024
Secretary: Dr. Patricia George
Supervisor, Material Sciences Dept.
Aerojet Electrosystems Co.
Azusa, CA 91702
Treasurer: Dr. Don Morel
Director of Research
P.O. Box 2105
ARCO Solar Co.
Chatsworth, CA 91311



Terry Cole (chief technologist, Jet Propulsion Laboratory) speaks at the Southern California Section inaugural meeting.



Anupam Madhukar (right), president of the new Southern California Section, receives Certificate of Charter from MRS President Gordon Pike.

The evening concluded with Dr. Cole's talk, which focused on innovative technologies being developed at both Caltech and JPL. He discussed the status of the hypercube for computing, the Hopfield memory model, and many other research efforts under way at JPL that require a wide variety of specialized materials for their success. His knowledge about the details of these projects generated stimulating discussion.

Morrison Steers Establishment of Section

The formation of the Southern California Section resulted from the commitment and hard work of Andrew Morrison, Jet Propulsion Laboratory. Morrison polled southern California MRS members to ascertain whether a local section would be viable. He also found out what members wanted to realize within the framework of a local organization and how best to initiate the chapter. The last mailing he made notified members of the first meeting and provided them an opportunity to vote for officers of the new Section.

Support and financial assistance for the initial mailings were also provided by ESPI Corporation. As a result of its generosity, ESPI was named the first corporate member of the Southern California Section. Special thanks are extended to Greg Bluman of ESPI for help in accomplishing these tasks.

About the Officers of the Southern California Section

Anupam Madhukar

Dr. Madhukar is professor of Materials Science and Physics at the University of Southern California. His research focuses on theoretical and experimental studies of molecular beam epitaxial growth and on

structural, optical and transport properties of tetrahedrally bonded semiconductor heterojunctions, multiple quantum wells and superlattices. He is also involved in computer simulations of epitaxial growth kinetics and mechanisms. His other areas of interest include oxidation/nitridation kinetics and mechanism for the Si/SiO_xN_y system, formation and chemical nature of silicon/silicide interfaces, and transport and optical properties of quasi two-dimensionally confined charge carriers.

Kang Wang

Dr. Wang has been professor of Electrical Engineering at the University of California at Los Angeles since 1979, where his current research effort is in silicon and gallium arsenide molecular beam epitaxy. He is particularly interested in the electrical and optical properties of superlattices and quantum well structures, as well as device applications of these materials. He and his students have developed an MBE interface modification system which provides monitoring and modification during the MBE process. In device physics he is studying multilayered structures for high-frequency and high-speed applications.

Don Morel

Dr. Morel is director of research for ARCO Solar, Inc., where he directs the groups responsible for creating innovations in thin films and other materials and advancing them into the development phase. His experience includes characterization of the fundamental properties of materials, including absorption properties, charge carrier generation and transport mechanisms, Fermi level and redox poten-

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tial measurement and manipulation, and trap characterization. He also has been active both in characterizing device properties and in fabricating materials and devices as well as theoretical modeling of amorphous silicon.

Patricia George

Dr. George is supervisor of the Material Sciences Department at Aerojet Electro-systems. Her research focuses on the surface and interface chemistry and physics of semiconductor materials, particularly silicon and gallium arsenide. In addition, she is actively involved in molecular beam epitaxial and chemical vapor deposition growth and characterization of multilayer silicon devices. Her other current interests include reactions on metal surfaces, especially those of transition metal complexes, and photodeposition of metals from organo-metallic compounds.

MRS Sections Invite Participation of New Members

Local Sections of the Materials Research Society now number six, each aggressively pursuing speaker programs and events reflecting the interests of the local research community. The most recently inaugurated Section was the Southern California Section, chartered during the 1986 Spring Meeting. Similar reports on the activities of the new Western New York and New Mexico Sections were published in the previous issue (Vol. XI, No. 2, p.28).

To find out about the technical programs, research speakers, and other special MRS section activities near you, contact one of the following people:

New Mexico Section

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Northern California Section

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North Carolina Section

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North Texas Section

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Workshop on Tungsten and Other Refractory Metals for VLSI Applications

November 12-14, 1986 / Palo Alto, California

Announcement and Call for Papers

This workshop is the third in a series organized to bring together active researchers in the field of refractory metals for advanced IC applications. It will consist of single-session presentations of both invited and contributed papers, supplemented by informal panel discussions.

Papers are solicited on:

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| LPCVD techniques | intermetal contact plugs |
| deposition kinetics | diffusion barriers |
| CVD gas chemistry | new device structures |
| film properties (physical, chemical, electrical) | adhesion of blanket tungsten to oxides |
| film/substrate interaction | etching of tungsten and refractory metals |
| refractory metal interconnects | |

Abstracts are due August 11, 1986.

Send abstracts (100 to 150 words, typed, double-spaced) to Linda Reid, Continuing Education in Engineering, University Extension, University of California, 2223 Fulton St., Berkeley, CA 94720. Include author's name, affiliation, mailing address, and phone number on abstract.

For an announcement call (415) 642-4151 or write to Continuing Education in Engineering, University of California Extension, 2223 Fulton St., Berkeley, CA 94720.

Continuing Education in Engineering, University Extension
University of California, Berkeley