

Alabama Section Co-Sponsors 3rd Annual Materials Research Conference

The Alabama Section of the Materials Research Society and Alabama EPSCoR jointly sponsored the third annual Alabama Materials Research Conference held September 20-21, 1989 in Huntsville, Alabama. EPSCoR, a U.S. National Science Foundation "Experimental Program to Stimulate Competitive Research," targets underfunded states for scientific development. The conference was co-hosted by Alabama A&M University and the University of Alabama at Huntsville (UAH) at UAH's Tom Beville Center. Hospitality support was provided by McDonnell Douglas Corporation.

The conference was broad in scope, featuring four symposia with concurrent sessions. Session topics spanned microgravity processing, advanced and aerospace materials, space science, composites, ceramics, carbon, crystal growth, biomaterials, and solidification/welding. In addition, the student sessions included diffusion, superconductors, and characterization.

Invited speakers were Lynn A. Boatner, head of the Ceramics and Interfaces Section, Solid State Division, Oak Ridge National Laboratory; James B. Roberto, associate director, Solid State Division, Oak Ridge; and Ralph Carruth, chief of the Physical Sciences Branch, Materials and

Processes Laboratory, NASA Marshall Space Flight Center.

Papers were also presented by scientists from various industries and national laboratories, including McDonnell Douglas Space Systems, Wyle Laboratories, Boeing, SRS Technologies, NASA Marshall Space Flight Center, Johnson Space Flight Center, and Los Alamos National Laboratory.



Left to right: Invited speaker Lynn Boatner, program coordinator and MRS Section President Daryush Ila, and invited referee Ilmars Dalins confer at the third annual Alabama Materials Research Conference.

Hemanta Jena, president of the Alabama A&M University Chapter of MRS, with the help of Hossein Maleki and Stephen D. Pearson organized the student activities. Prizes were awarded for the two best student platform papers and the two best student posters. Recognized in the platform paper category were J.R. Ashburn (UAH) and D.A. Robinson (University of Alabama at Tuscaloosa). For the posters, first prize went to S.E. Zutaut (UAH), and second to D.A. Robinson in collaboration with W.D. Calhoun and K.M. Stephens. First prize in each category was the *CRC Handbook of Chemistry and Physics*; second prize was a one-year paid membership in MRS. The judges were Ilmars Dalins of NASA Marshall Space Flight Center, Tim Volin of Parker Hanefin, and Sam Jacobs of United Space Boosters Inc.

The program committee included Lawrence R. Holland, program chairman (Alabama A&M and MRS); Samuel P. McManus, organizing chairman (UAH and MRS); Daryush Ila, coordinator (Alabama A&M and MRS Alabama Section president); Gwyn Morgan Jenkins (Alabama A&M and University College, Swansea, UK); John C. Gregory, symposium organizer (UAH); J. Milton Harris (UAH); and Manmohan D. Aggarwal (Alabama A&M and MRS).

A program summary including titles and authors is available from Lawrence Holland, Physics Department, Alabama A&M University, Normal, AL 35762; telephone (205) 851-5313; fax (205) 851-7984.

MRS

CHAPTER NEWS

Cornell, Florida University Chapters Announce Officers, Activities

The **Cornell University Chapter** of the Materials Research Society has elected officers for the 1989-1990 year:

President—Adrienne C. Alton, Cornell University, Bard Hall, Ithaca, NY; telephone (607) 255-6684

Vice President—Mark Zaleski

Secretary—Joanna Baum

Treasurer—Barbara Cho

Publicity Chair—Jeff Lawlis

The Cornell Chapter has held several general meetings and a series of computer

training seminars. Their plans included a progressive dinner, a company information session, and a faculty-student reception. Many members expected to attend the 1989 MRS Fall Meeting in Boston.

The **Florida University Chapter** of the Materials Research Society also elected the following officers:

President—Chris Santana, 4411 NW 19th Avenue, Gainesville, FL 32605; telephone (904) 372-3830

Vice President—Brian Greenwood

Secretary/Treasurer—Mike Tyrech

Attendance at the Florida Chapter's first meeting in September was about 20 people. The favorable turnout was attributed to interest in the guest speaker topic—

interviewing techniques. The meeting was held one week before the campus' Career Expo, when companies visit the campus to interview prospective employees.

Of the possible Chapter activities discussed at the meeting, the most popular ideas included inviting department professors to describe on-going research in their labs, making a field trip to a semiconductor processing plant, and organizing a progressive dinner with the faculty.

The Florida Chapter also announced plans to participate in a pre-engineering colloquium on campus by displaying brochures and publications from MRS. This event is held so that freshmen and sophomores interested in engineering can gain first-hand information about the university's colleges.

MRS

1990 SPRING MEETING PROGRAM

April 16-21,
1990



San Francisco,
California

DEGRADATION MECHANISMS IN III-V COMPOUND SEMICONDUCTOR DEVICES & STRUCTURES

V. Swaminathan, AT&T Bell Laboratories, (201) 582-4981, FAX (201) 582-5917; Stephen J. Pearton, AT&T Bell Laboratories, (201) 582-4757, FAX (201) 582-5917; Omar Manasreh, Wright Research & Development Center, (513) 255-4474, FAX (513) 255-5375

MATERIALS ISSUES IN ART AND ARCHAEOLOGY II

James R. Druzik, Getty Conservation Institute, (213) 822-2299; FAX (213) 821-9409; Pamela B. Vandiver, Smithsonian Institution, (301) 238-3734; FAX (301) 238-3667; George Wheeler, Metropolitan Museum of Art, (212) 570-3858, FAX (212) 570-3879

MATERIALS FOR SENSORS AND SEPARATIONS

Marc Anderson, University of Wisconsin-Madison, (608) 262-2470, FAX (608) 262-0454; John Armor, Air Products and Chemicals, Inc., (215) 481-5792, FAX (215) 481-4600; D. Jed Harrison, University of Alberta, (403) 492-2790, FAX (403) 492-8231; Antonio J. Ricco, Sandia National Laboratories, (505) 846-4947, FAX (505) 846-2009

ALLOY PHASE STABILITY AND DESIGN

G. Malcolm Stocks, Oak Ridge National Laboratory, (615) 574-5163; Anthony F. Giamei, United Technologies Research Center, David P. Pope, University of Pennsylvania, (215) 898-9837, FAX (215) 898-1130

THIN FILM STRUCTURES AND PHASE STABILITY

Bruce M. Clemens, Stanford University, (415) 725-7455, FAX (415) 725-4034; William L. Johnson, California Institute of Technology, (818) 356-4433, FAX (818) 795-1547

THIN FILMS: STRESSES AND MECHANICAL PROPERTIES II

Warren Oliver, Oak Ridge National Laboratory, (615) 576-7245, FAX (615) 574-7721; Mary Doerner, International Business Machines, (408) 284-8369, FAX (408) 256-8481; George Pharr, Rice University, (713) 527-8101, Ext. 3573, FAX (713) 285-5136, Bitnet: PHARR@RICE; Franz R. Brötzten, Rice University, (713) 527-8101, FAX (713) 285-5136

MICROWAVE PROCESSING OF MATERIALS

William B. Snyder, Oak Ridge National Laboratory, (615) 576-2178; Willard H. Sutton, United Technologies Research Center, (203) 727-7639; D. Lynn Johnson, Northwestern University, (312) 491-3584; Magdy F. Iskander, University of Utah, (801) 581-6944

PLASMA PROCESSING AND SYNTHESIS OF MATERIALS

Diran Apelian, Drexel University, (215) 895-1541, FAX (215) 895-4929; Julian Szekeley, Massachusetts Institute of Technology, (617) 253-3236; FAX (617) 253-8124

LASER ABLATION FOR MATERIALS SYNTHESIS

David C. Paine, Brown University, (401) 863-1457, FAX (401) 863-1157; John C. Bravman, Stanford University, (415) 723-3698, FAX (415) 725-4034

AMORPHOUS SILICON TECHNOLOGY - 1990

P.C. Taylor, University of Utah, (801) 581-4484, FAX (801) 581-4801; Malcolm J. Thompson, Xerox PARC, (415) 494-4561, FAX (415) 494-4919; Y. Hamakawa, Osaka University, Japan, 81-6-844-1151, FAX 81-6-853-1362; Arun Madan, Colorado, (303) 526-9016, FAX (303) 526-1718; P.G. LeComber, University of Dundee, United Kingdom, 44-382-23181, FAX 44-382-201604

SURFACE AND NEAR SURFACE STRUCTURE OF POLYMER INTERFACES

Jeffrey A. Kelber, Sandia National Laboratories, (505) 844-5436; Ralph G. Nuzzo, AT&T Bell Laboratories, (201) 582-5486; Matthew V. Tirrell, University of Minnesota, (612) 625-0192, FAX (612) 626-7246; Ernesto Occhiello, Istituto Guido Donegani, Italy

ATOMIC SCALE CALCULATIONS OF STRUCTURE IN MATERIALS

Michael A. Schluter, AT&T Bell Laboratories, (201) 582-3106; Murray S. Daw, Sandia National Laboratories, (415) 294-2198

INTERMETALLIC MATRIX COMPOSITES

Donald L. Anton, United Technologies Research Center, (203) 727-7174, FAX (203) 727-7879; Robert McMeeking, University of California, Santa Barbara, (805) 961-4583, FAX (805) 961-8124; Daniel Miracle, United States Air Force, Wright-Patterson AFB, (513) 255-9833, FAX (513) 255-9792; Patrick Martin, Los Alamos National Laboratory, (505) 667-8168, FAX (505) 667-1754

PHYSICAL PHENOMENA IN GRANULAR MATERIALS

Theodore H. Geballe, Stanford University, (415) 723-0215, FAX (415) 723-0010; Ping Sheng, Exxon Research & Engineering, (201) 730-2870, FAX (201) 730-3042; G.D. Cody, Exxon Research & Engineering, (201) 730-3022; FAX (201) 730-3042

SUPERPLASTICITY IN METALS, CERAMICS, AND INTERMETALLICS

Merrilea J. Mayo, Sandia National Laboratories, (505) 846-3551, FAX (505) 846-5064; Jeffrey Wadsworth, Lockheed Missile & Space Co., Inc., (415) 424-2234, FAX (415) 354-5415; Masaru Kobayashi, Technological University of Nagaoka, Japan, 0258-46-6000, Ext. 7120, FAX 0258-46-6972; Amiya K. Mukherjee, University of California at Davis, (916) 752-1776; FAX (916) 752-8058

MATERIALS INTERACTIONS RELEVANT TO THE PULP, PAPER AND WOOD INDUSTRIES

June D. Passaretti, Pfizer Minerals Research Center, (215) 861-3431, FAX (215) 861-3412; Daniel Caulfield, USDA Forest Service, (608) 231-9436, FAX (608) 231-9592; Rustum Roy, Pennsylvania State University, (814) 865-3421; FAX (814) 865-2326; Vance Setterholm, USDA Forest Service, (608) 231-9478; FAX (608) 231-9592

EPITAXIAL HETEROSTRUCTURES

Don W. Shaw, Texas Instruments, Inc., (214) 995-4788, FAX (214) 995-5539; John C. Bean, AT&T Bell Laboratories, (201) 582-3324, FAX (201) 582-3901; Vassilis G. Keramidas, Bellcore, (201) 758-3353, FAX (201) 758-9626; Paul S. Peercy, Sandia National Laboratories, (505) 844-4309, FAX (505) 846-2009

WORKSHOP ON SPECIMEN PREPARATION FOR TRANSMISSION ELECTRON MICROSCOPY OF MATERIALS II

Ron Anderson, IBM, (914) 892-2225, FAX (914) 892-2555

FRONTIERS OF MATERIALS RESEARCH

Robert A. Huggins, Stanford University, (415) 723-4110, FAX (415) 725-4034

FERROELECTRIC THIN FILMS

Angus I. Kingon, North Carolina State University, (919) 737-2347, FAX (919) 737-3419; Edward R. Myers, National Semiconductor, (408) 721-2258, FAX (408) 736-8503

Meeting Chairs

John C. Bravman
Stanford University
(415) 723-3698
FAX (415) 725-4034

William H. Butler
Oak Ridge
National Laboratory
(615) 574-4845
FAX (615) 574-7721

C. Jeffrey Brinker
Sandia National
Laboratories
(505) 846-3552
FAX (505) 846-5064

BETTER CERAMICS THROUGH CHEMISTRY IV

C.J. Brinker, Sandia National Laboratories, (505) 846-3552, FAX (505) 846-5064; D.E. Clark, University of Florida, (904) 392-7660, FAX (904) 392-6359; Donald R. Ulrich, Air Force Office of Scientific Research, (202) 767-4963; Brian J.J. Zelinski, Arizona Materials Laboratories, (602) 322-2977, FAX (602) 322-2993

ADVANCED METALLIZATIONS IN MICROELECTRONICS

Avishay Katz, AT&T Bell Laboratories, (201) 582-2261, FAX (201) 582-5917; Shyam P. Murarka, Rensselaer Polytechnic Institute, (518) 276-2978, FAX (518) 276-8761; Ami Appelbaum, Rockwell International Corporation, (214) 996-6522, FAX (214) 996-5545

POLYSILICON THIN FILMS AND INTERFACES

Bruha Raicu, Integrated Technology Associate, (408) 773-8614; FAX (415) 941-2704; T. Kamins, Hewlett-Packard, (415) 857-5470, FAX (415) 857-5308; Carl V. Thompson, Massachusetts Institute of Technology, (617) 253-7652, FAX (617) 258-8539

CRITICAL CURRENTS IN HIGH-TEMPERATURE SUPERCONDUCTORS

John R. Clem, Iowa State University, (515) 294-4223, FAX (515) 294-0689; Jack W. Ekin, National Institute of Standards & Technology, (303) 497-5448, FAX (303) 497-5316; Sungho Jin, AT&T Bell Laboratories, (201) 582-4076, FAX (201) 582-2913; Donald M. Kroeger, Oak Ridge National Laboratory, (615) 574-5155, FAX (615) 574-6073

HIGH RESOLUTION ELECTRON MICROSCOPY OF DEFECTS IN MATERIALS

Robert Sinclair, Stanford University, (415) 723-1102, FAX (415) 725-4034; Ulrich Dahmen, University of California, Berkeley, (415) 486-4627, FAX (415) 486-4888; David J. Smith, Arizona State University, (602) 965-4540