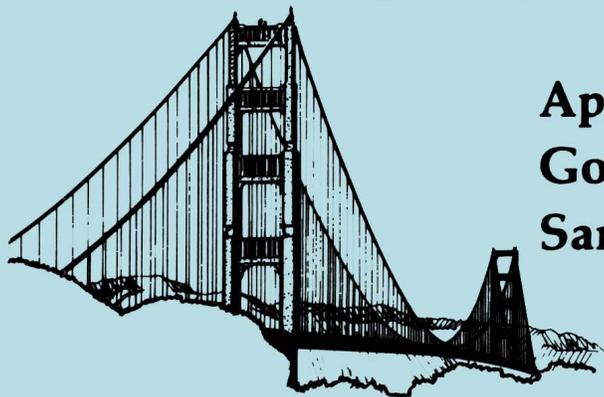


1985 Spring Meeting Preview



April 15-18, 1985

Golden Gateway Holiday Inn
San Francisco, California

Twice the coverage...twice the attendance of the 1984 meeting projected

The Society's second Spring Meeting is rapidly shaping up under the management of Meeting Chairpersons A. W. Johnson, S. M. Kelso, and K. S. SreeHarsha. They report that seven focused symposia plus the popular Symposium for the Non-Specialist (Symposium X) will include approximately 375 papers representing the work of nearly 1,000 researchers. This amounts to nearly twice the breadth and participation of the highly successful first Spring Meeting held last year in Albuquerque, New Mexico.

The Spring Meeting, which was instituted as an extension of the popular Fall Meeting series in Boston, offers researchers from

the West Coast of the United States and East Asia a convenient annual venue for review of the state of the art in the most active fields of basic materials research. The importance of the MRS-style interdisciplinary approach to materials research is evidence by the Meeting's expanded technical scope and participation by hundreds of the most notable authorities in the field. MRS members — from the East and the West — are encouraged to review the up-coming Spring Meeting program and register by **March 20, 1985**, to take advantage of the special pre-registration fee. See the registration and housing reservation forms in this issue.

See the following brief descriptions of the symposia and also see the complete list of speakers in the Preliminary Program booklet.

REGISTER EARLY

Symposium A: Ion Beam Processes in Advanced Electronic Materials and Device Technology

April 15-17

Symposium Organizers: F. H. Eisen, Rockwell International

T. W. Sigmon, Stanford Electronics Laboratory

B. R. Appleton, Oak Ridge National Laboratory

The 59 papers will illustrate the increasing importance of ion beam processing in the fabrication of new semiconductor devices and integrated circuits. Topics will include: focused beams; shallow junctions, channeling tails, and amorphous layer regrowth; ion beam mixing, modification, and adhesion in metal/insulator/semiconductor systems; high dose rate and high energy implantation effects; implantation in compound semiconductor materials and devices; buried insulating layers, SOS and SOI; practical machine and implant considerations; and transient thermal annealing.

Invited speakers include: J. F. Gibbons, Stanford Electronics Laboratory; J. W. Mayer, Cornell University; T. E. Seidel, AT&T Bell Laboratories; B. G. Streetman, University of Texas; K. Gamo, Osaka University; G. C. Farlow, Oak Ridge National Laboratory; T. Venkatesan, Bell Communications Research; J. S. Williams,

Royal Melbourne Institute of Technology; D. E. Davies, Rome Air Development Center; and G. Ryding, Eaton Corporation.

Symposium Support: Division of Materials Science, Office of Basic Energy Sciences, U. S. Department of Energy; National Electrostatics Corporation; and Rockwell International.

Proceedings of this symposium will be published.

Symposium B: Microscopic Identification of Electronic Defects in Semiconductors

April 15-18

Symposium Organizers: Noble M. Johnson, Xerox Palo Alto Research Center

Stephen G. Bishop, Naval Research Laboratory

George D. Watkins, Lehigh University

Experimental and theoretical issues of establishing the microscopic identity of electronic defects in elemental and compound semiconductors will be explored in 82 papers. Emphasis will be on the role of theory; EL_2 and As_{Ga} antisite in GaAs; Group IV semiconductors/thermal donors; compound semiconductors; experimental techniques; and Group IV semiconductor interfaces.

Invited speakers include: L. C. Kimerling, AT&T Bell Laboratories; Jürgen Schneider, Fraunhofer-Institut für Angewandte; M. S. Skolnik, Royal Signals and Radar Establishment; H. G. Grimmeiss, University of Lund; M. Schülter, AT&T Bell Laboratories; D. J. Dow, University of Notre Dame; J. A. Van Vechten, IBM T. Watson Research Center; H. C. Gatos, MIT; E. R. Weber, University of California; J.-M. Spaeth, University of Paderborn; C. A. J. Ammerlaan, University of Amsterdam; James W. Corbett, SUNY-Albany; Neal D. Wilsey, Naval Research Laboratory; D. C. Reynolds, Air Force Wright Aeronautical Laboratories; P. M. Petroff, AT&T Bell Laboratories; E. E. Haller, University of California; R. Sauer, Universität Stuttgart.

Symposium Support: Army Research Office, Electronics Division; Office of Naval Research; and Air Force Office of Scientific Research; and Xerox Corporation.

Proceedings of this symposium will be published.

Symposium C: Thin Films: The Relationship of Structure to Properties

April 15-17

*Symposium Organizers: C. R. Aita, University of Wisconsin-Milwaukee
K. S. SreeHarsha, San Jose State University*

More than 40 papers will relate the structure of thin films to their chemical, optical, electrical, thermal, and mechanical properties. Papers will focus on the following areas: metal overlayers; alloys and layered films; modern ceramic materials; silicides and related materials; semiconductor films; chemistry and structure; and ordered growth.

Invited speakers include: D. Gupta, IBM; J. E. E. Baglin, IBM; S. Hickernell, Motorola; M. G. Lagally, University of Wisconsin-Madison; R. Beyers, Stanford University; J. C. Phillips, AT&T Bell Laboratories; P. H. Holloway, University of Florida; J. Merz, University of California; E. Krikorian, The Aerospace Corporation.

Proceedings of this symposium will be published.

Symposium D: Mass Memory Technologies

April 15-17

*Symposium Organizers: M. A. Bosch, Blazers
I. M. Croll, IBM Corporation
D. H. Davies, 3M Corporation
R. D. Hilde, 3M Corporation
A. Homola, IBM Corporation*

Addressing primarily magnetic and optical data storage, the 37 papers will report advances in R&D and application of mass memory systems. Topics will include: optical storage—the market and the technology; magnetic recording; erasable optical media; optical recording; materials and systems; and optical storage applications.

Invited speakers include: W. Verkaik, Philips Export; T. Kiyomiya, Sony Corporation; J. Mallison, University of California; D. E. Speliotis, Advanced Development Corporation; A. Hoagland, University of Santa Clara; G. Bate, Verbatim Co.; S. B. Luitjens, Philips Research Laboratories; Tu Chen, Komag Co.; J. Cornet, Thomson-CSF; and M. Asano, Oki Electric Industry Co.

Symposium Support: 3M Corporation, IBM Corporation, and Symard.

Symposium E: Applied Materials Characterization

April 15-18

*Symposium Organizers: W. Katz, General Electric
P. Williams, Arizona State University*

Applied and theoretical aspects of surface analysis as applied in electronic materials, polymers, ceramics, and other materials will be reviewed in this three-day forum consisting of 62 papers. Emphasis will be on atomic ordering of materials; chemical bonding analysis; microstructure; elemental microanalysis; and materials characterization using photon beams.

Invited speakers include: M. Legally, University of Wisconsin; R. Messmer, General Electric; M. Isaacson, Cornell University; J. Spence, Arizona State University; C. W. Magee, RCA Laboratories; N. Winogad, Pennsylvania State University; W. Gibson, SUNY-Albany; C. J. Hitzman, Charles Evans and Associates.

Symposium Support: A. G. Associates; Cameca Instruments; Charles Evans and Associates; General Ionex; JEOL; Perkin-Elmer Physical Electronics Division; Philips; Surface Science Laboratories; V. G. Instruments; Instruments, S. A.; and Leybold-Heraeus, Inc.

Proceedings of this symposium will be published.

Symposium F: Materials Issues in Applications of Amorphous Silicon Technology

April 15-17

*Symposium Organizers: D. Adler, Massachusetts Institute of Technology
A. Madan, Solar Energy Research Institute
M. J. Thompson, Xerox Palo Alto Research Center*

More than 55 papers will discuss materials issues related to amorphous silicon-based technologies, focusing on developments in the areas of solar cells; thin-film transistors; superlattices; stability; photoreceptors; image sensors; defects and interfaces; alloys; and chemical vapor deposition.

Invited speakers include: Y. Hamakawa, Osaka University; R. Ovshinsky, Energy Conversion Devices; D. L. Morel, Arco Solar; T. Tiedje, Exxon Research and Engineering Co.; P. G. LeComber, University of Dundee; C. R. Wronski, Exxon Research and Engineering Co.; M. Stutzmann, Xerox Palo Alto Research Center; I. Shimizu, Tokyo Institute of Technology; T. Ozawa, Fuji Xerox Co.; P. C. Taylor, University of Utah; G. Lucovsky, North Carolina State University.

Symposium Support: Arco Solar, Inc.; Energy Conversion Devices; Solar Energy Research Institute; Solarex; Spire Corporation; Standard Oil of Indiana (Amoco); Standard Oil of Ohio; and 3M Corporation.

Proceedings of this symposium will be published.

Symposium G: XUV and X-ray Optics for Synchrotron Radiation

April 16-17

*Symposium Organizers: P. A. Pianetta, Stanford Synchrotron Radiation Laboratory
J. Golovchenko, AT&T Bell Laboratories*

All aspects of reflective and diffractive optics pertaining to synchrotron radiation will be explored in the 29 papers, with emphasis on reflective soft x-ray optics, transmission soft x-ray optics, hard x-ray optics, and x-ray topography and detectors.

Invited speakers include: M. Howells, Lawrence Berkeley Laboratory; V. Rehn, Michelson Laboratory; T. W. Barbee; R. Tatchyn, Stanford University; H. Rarback, SUNY-Stony Brook; D. Mills, Cornell University; and Z. Rek, Stanford University.

Symposium X: Tutorial Reviews for the Non-Specialist

April 15-18

Chairperson: Rustum Roy, Pennsylvania State University

Eight tutorials on frontier topics in materials research will be reviewed and described in relation to previous and related science to provide a thorough, succinct understanding of the subject. This series of tutorials will span the general area of preparation and characterization of thin films. Topics are: chemical vapor deposition methods for thin film deposition; modification of thin films by ion bombardment during deposition; thin film deposition by sputtering; laser-assisted methods for surface films; synthesis and characterization of multilayer structures of amorphous semiconductors; adhesion of thin films to substrates; nano and microstructural characterization of thin films; and compositional analysis of thin films.