#### Fourth BACG Photochemical Processing Workshop to be Held at University College London

The Fourth Photochemical Processing Workshop of the British Association for Crystal Growth (BACG) will be held April 21, 1989 at University College London. As in previous years the workshop aims to cover photochemical processes of present or potential application in semiconductor device fabrication. Papers are welcomed on the techniques of light-induced metallization, insulator deposition, etching, photo-ablation, epitaxial deposition, and related assessment; and on other novel areas involving the direct interaction of light with gases, liquids or solids to produce or modify surface studies.

The workshop's host at University College London (UCL) will be Ian W. Boyd. UCL is an established and expanding center for laser processing, with studies of fun-

damental mechanisms and macroscopic applications under the direction of Ian Boyd and Richard B. Jackman. UCL is also part of the University of London Interdisciplinary Research Centre in Semiconductor Materials.

For information contact: J. Haigh, British Telecom Research Laboratories, Martlesham Heath, Ipswich IP5 7RE, Suffolk, United Kingdom; or I.W. Boyd, Department of Electronic and Electrical Engineering, University College London, Torrington Place, London WC1E 7JE, United Kingdom; telephone (01) 387-7050; fax (01) 387-4350.

# 49th Annual Conference on Physical Electronics Scheduled for June

The Forty-Ninth Annual Conference on Physical Electronics will be held at Kane Hall, University of Washington, Seattle, Washington, June 19-21, 1989. This annual conference is sponsored by the American Physical Society's Division of Condensed Matter Physics and Division of Atomic, Molecular, and Optical Physics.

The conference continues a tradition of presenting new research results with ample time for discussion (15-minute presentation followed by a 5-minute discussion). Both experimental and theoretical oral presentations will cover the fundamental physics and chemistry of solid surfaces and interfaces. Topics include electronic, chemical, and crystallographic properties of surfaces and interfaces, as well as kinetic and dynamic mechanisms of physical and chemical reactions, phase transitions, and adsorption. The properties of surfaces that are clean or that incorporate foreign atoms are of interest, as are papers which present new methods of surface analysis and characterization. The conference, however, will continue to emphasize the description of surface and interface properties at a fundamental atomic and molecular level.

Abstracts in the proper format are due April 26, 1989. For information contact: Conference Management, University of Washington Extension, GH-22, 5001 25th Ave. NE, Seattle, WA 98195, telephone (206) 543-2300; or S.C. Fain Jr., Physics Department: FM-15, University of Washington, Seattle, WA 98195, (206) 543-8444.



### 1989 MRS SPRING MEETING

Town & Country Hotel San Diego, California

Register by April 14,1989 to take advantage of pre-meeting fees.

Register by mail (see p. 2 for address), phone (412) 367-3003, or fax (412) 367-4373.

# SOCIETY OF VACUUM COATERS

#### 32nd ANNUAL TECHNICAL CONFERENCE

April 24-28, 1989

Adam's Mark Hotel in St. Louis, Missouri

The Technical Sessions associated with the SVC 32nd TechCon will be held April 26-28, 1989. The Equipment Exhibit and associated receptions held on Wednesday and Thursday evenings, April 26 and 27 will be highlights of the conference and will provide an excellent opportunity for all participants to interact with both users and suppliers to the vacuum coating industry. During the early part of the week, short courses will be presented by the Society of Vacuum Coaters, the American Vacuum Society and the Materials Research Society. The overall program schedule has been designed to enable TechCon participants to benefit from both the Education Program, Technical Sessions and Equipment Exhibit.

#### **TECHNICAL SESSIONS:**

April 26-28

**EDUCATION PROGRAM:** April 24-27

**Contamination Control** 

**Process Technology** 

Vacuum Web Coating

Compact Disc & Media Technology

Vacuum Technology

Industrial Thin Films

**Optical Coating** 

**Vendor Session** 

April 24-25 **SVC** Practical Aspects of Optical Coating April 24-25 **SVC** Understanding Vacuum Systems I: A Modular Approach

April 25 **SVC** Compact Disc Manufacturing:

How to Close and Shorten the Loop

April 26 **SVC** Process Workshop

April 24 AVS Sputter Deposition

April 24 AVS Total Pressure Gauging Methods

April 25 AVS Partial Pressure Analyzers, Analysis, and

Applications

April 26-27 AVS Operation and Maintenance of Vacuum Pumping Systems

April 26-27

Wednesday 4:00 p.m. - 9:00 p.m.

**EQUIPMENT EXHIBIT:** 

Thursday 3:00 p.m. - 7:00 p.m.

April 25 MRS F-04: Film Formation, Adhesion and Surface Preparation

April 26 MRS M-08: Nature of Solid Lubricants and their Applications

#### MRS

## MRS F-04: FILM FORMATION, ADHESION, AND SURFACE PREPARATION

Tuesday, April 25

Course Fee: \$325.00

MRS M-08: NATURE OF SOLID LUBRICANTS AND THEIR APPLICATIONS

Wednesday, April 26

Course Fee: \$325.00

The properties, reproducibility and stability of films formed by atomistic deposition processes depend on the details of surface preparation, interface formation and film growth. This course will cover the fundamental aspects of the various stages of film formation for films deposited by vacuum deposition, sputter deposition and ion plating. Both reactive and non-reactive conditions will be considered. The important interrelationships between deposition process parameters and film properties will be discussed and methods of modifying and controlling the film properties will be detailed. Since substrate preparation is an integral part of the film formation process, methods of surface preparation, storage and handling will be described. Film adhesion and its testing will be discussed in some detail.

INSTRUCTOR: Donald M. Mattox

Sandia National Laboratories

This course is intended to acquaint the attendee with the field of solid lubrication. The nature of solid lubricant materials and the mechanisms by which they lubricate will be presented. Comparisons are made between solid lubricants and liquid lubricants. The intent of the course is to describe how solid lubricants fit into the broad perspective of tribology in order to prepare the attendee to intelligently decide when and where it is advantageous to use them. A logical method will be discussed for the selection of solid lubricating materials for use under extreme operating conditions such as in vacuum and at elevated temperatures. Several currently available and novel solid lubricants, well suited for vacuum technology, such as molybdenum disulphide, thin metallic films and some polymers will be discussed.

INSTRUCTOR: Harold E. Sliney

NASA Lewis Research Center

For registration information, contact: SVC Administrative Office TEL: (505) 298-7624 • FAX: (505) 298-7942