

R.G. HANSEN & ASSOCIATES

LABORATORY CRYOGENIC SAMPLE COOLING LIQUID TRANSFER SYSTEMS 4.2K-400K



HIGH-TRAN

- Controlled variable temperature 4.2K-400K
- Liquid helium or nitrogen
- May be operated in any orientation
- Quick cool-down
- Dual heat exchangers
- Electron beam welded
- Designed to cool spectroscopy and UHV samples

R.G. Hansen & Associates
631 Chapala Street
Santa Barbara, CA 93101
(805) 564-3388
FAX (805) 963-0733

Visit our booth at APS
Write for brochures
and further information

Circle number 66 on Reader Service Card

forms cage-like structures around guest molecules. Jeffrey discovered clathrates having cages of various sizes and symmetries, depending on the guest molecules. The guest molecules ranged in size from small molecules like Br_2 to bulky organic amines. In addition, Jeffrey has conducted crystallographic studies in carbohydrate chemistry and hydration chemistry. Jeffrey has served ACA as treasurer (1954-58), vice president (1962) and president (1963). He was chairman of the NAS-NRC committee of chemical crystallography (1960-64), and chairman of the US National Committee for Crystallography (1964-66). In addition, he has been the US delegate to several congresses of the International Union of Crystallography.

Jeffrey was educated at the University of Birmingham (UK), where he received his BSc in 1936, his PhD in chemistry in 1939 and his DSc in 1953. He was a research physicist at the British Rubber Producers Research Association (1939-45) and a lecturer in inorganic and physical chemistry at the University of Leeds (1945-53) before becoming professor of chemistry and physics at Pittsburgh in 1953. He was named University Professor of Crystallography in 1966, and became professor emeritus in 1985.

Representative William Nelson, a Democrat from Florida, will receive the first ACA Public Service Award. The award will be bestowed occasionally to recognize noncrystallographers who have made "unusual contributions to public policy issues related to science, to the funding of fundamental areas of science that impact on crystallography and to the communication of crystallography to the general public." Since 1978 Nelson has been elected to five terms in the House of Representatives. He has been a strong advocate for increased funding for basic science within NASA. As chairman of the House Subcommittee on Space Science and Applications he trained and flew with the crew of the space shuttle Columbia in January 1986. During the flight he performed protein crystal growth experiments on several important proteins.

APS ESTABLISHES ADLER LECTURESHIP

The APS Materials Physics Topical Group has established a new award, the David Adler Lectureship, to recognize "outstanding contributions to the advancement and diffusion of the



Jan Tauc

knowledge of materials and their properties," with "special attention... to the clarity of written and oral skills of the recipient." It will be presented annually at the APS March meeting and will consist of a certificate and an honorarium of no less than \$1000. The recipient will present an invited talk at the meeting. The lectureship was established by contributions from friends of David Adler, a professor of electrical engineering and computer science at MIT who was known for his work on transition-metal oxides and amorphous semiconductors. He died on 31 March 1987. (See PHYSICS TODAY, February, page 104.)

Jan Tauc (Brown University), who became the first recipient of the prize at the 1988 APS meeting in New Orleans, was cited for his "incisive contributions to our understanding of the electronic structure and properties of amorphous semiconductors and his concomitant skills in communicating these advances." His studies have included the optical properties and electronic structure of noncrystalline, molten and amorphous semiconductors; the theory of metallic glass formation; and picosecond studies of vibrations and electronic relaxations and absorptions. He holds doctoral degrees from the Technical University (Prague, 1949), the Czechoslovak Academy of Sciences (1956) and Charles University (Prague, 1956). He headed the semiconductor department in the Czechoslovak Academy's Institute of Solid State Physics (1953-69), and he was a professor of experimental physics at Charles University (1964-69). In 1970 Tauc became a professor of engineering and physics at Brown University; he was named the L. Herbert Ballou Professor of Physics and Engineering and director of Brown's materials research laboratory.

Searching for a Comprehensive Database of Worldwide Physics Research Literature?

Try **Physics Briefs**

—the timeliest science and technology database in physics.

Now Over One Million English Language References—With Abstracts!

Encompassing literature on physics, astronomy and related fields, *Physics Briefs* covers over 2,800 scientific and technical journals, reports, conference proceedings, books, patents, dissertations and other works—including literature from

Eastern European countries not covered by other databases.

To suit your library's reference needs, *Physics Briefs Information Products and Services* include an online service, an abstracts journal, and a magnetic tape leasing service.

The Frontrunner for Current Abstracts!

Updated twice monthly with 130,000 new records per year, *Physics Briefs* supplies important references much sooner than its competitors. For papers published by the American

Institute of Physics, *Physics Briefs* regularly releases the references simultaneously to the publication of the articles. Compare *Physics Briefs* performance...

Physics Briefs

<u>Journal</u>	<u>Current issue on file*</u>
Applied Physics Letters	November 23, 1987
Jrnl. of Applied Physics	December 1, 1987

vs

The Leading Competitor

<u>Journal</u>	<u>Current issue on file*</u>
Applied Physics Letters	August 24, 1987
Jrnl. of Applied Physics	August 15, 1987

*As of 12/6/87 search.

New Subscriber Discounts

Combination Offer!

FREE! \$1,000 of equivalent PHYS search time for subscribing now to *Physics Briefs* abstract journal.

Special Offer!

50% OFF *Physics Briefs* for new subscriptions by users of PHYS on STN.

Flat-Fee Rate!

Only \$2,450 per year for universities. User benefits cover search time, online displays, and offline prints.

For information on any of these services, please write to:

American Institute of Physics

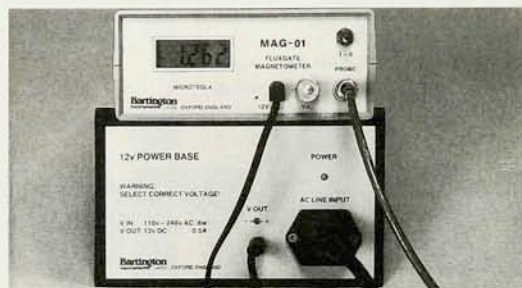
Marketing Services/Dept. AM
335 East 45th Street
New York, NY 10017

Circle number 94 on Reader Service Card

Physics Briefs is produced by Fachinformationszentrum Energie, Physik, Mathematik in cooperation with the American Institute of Physics, and available through STN International.

MAG-01 Single Axis Fluxgate Magnetometer

PRICE WITH PROBE ONLY \$2800



FOR DETAILED EXPLORATION AND MONITORING
OF MAGNETIC FIELDS

- Continuous directional measurement
- Auto-ranging — 1nT to 200nT (10^{-5} — 2 Gauss)
- Miniature axial and transverse probes — sensitive volume 1.2 cc and 0.6 cc
- Portable — rechargeable batteries
- Analog output

US AGENT · GMW Associates Tel: (415) 368 4884

Bartington
instruments Ltd

Spendlove Centre · Enstone Road
Charlbury · Oxford · OX7 3PQ · UK
Tel: +44 608 810657
Telex: 94016985 BART G

Circle number 68 on Reader Service Card

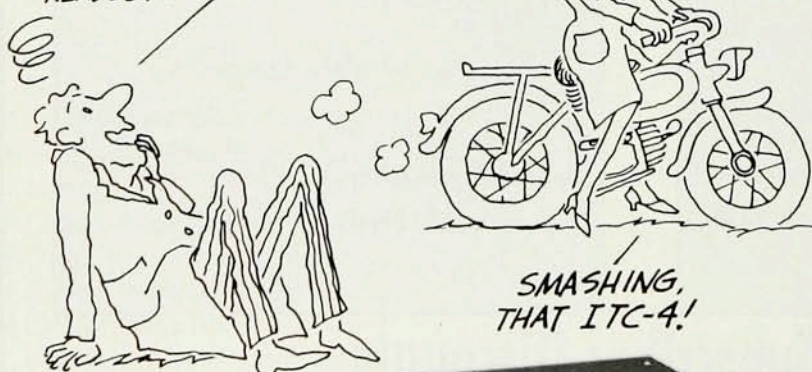
ry in 1983. He spoke at the New Orleans meeting on photomodulation studies of gap states in doped amorphous hydrogenated silicon.

NAS elects new members

The National Academy of Sciences in April elected the following new members whose work is in physics or related fields: Stephan Berko (Brandeis University), Eric E. Conn (University of California, Davis), Lawrence F. Dahl (University of Wisconsin), Russ E. Davis (Scripps Institution of Oceanography), Robert E. Dickinson (National Center for Atmospheric Research), Thomas Dunne (University of Washington), Mitchell J. Feigenbaum (Rockefeller University), Roy J. Glauber (Harvard University), James P. Gordon (AT&T Bell Laboratories, Holmdel, New Jersey), Frances K. Graham (University of Delaware), Theodore E. Harris (University of Southern California), Herbert A. Hauptman (State University of New York at Buffalo), John K. Hulm (Westinghouse Research Laboratories, Pittsburgh), Joseph Kraut (University of California, San Diego), Rolf W. Landauer (IBM Thomas J. Watson Research Center, Yorktown Heights, New York), Donald H. Levy (University of Chicago), Alexander Pines (University of California, Berkeley), John D. Reppy (Cornell University), Edwin W. Roedder (Harvard), Robert J. Shepherd (University of Kentucky), Anthony E. Siegman (Stanford University), Hyron Spinrad (Berkeley), George D. Watkins (Lehigh University), Edward Witten (Institute for Advanced Study and Princeton University), Alfred P. Wolf (Brookhaven National Laboratory) and M. Gordon Wolman (Johns Hopkins University). The following individuals were elected foreign associates: David R. Cox (Imperial College of Science and Technology, UK), Jack D. Dunitz (Swiss Federal Institute of Technology), Dan P. McKenzie (University of Cambridge), P. James E. Peebles (Princeton), Raymond A. Price (Geological Survey of Canada), Heinrich Rohrer (IBM Zurich Research Laboratory), Jens C. Skou (University of Aarhus, Denmark) and Walter E. Thirring (University of Vienna).

The academy elected the following individuals last year: Elihu Abrahams (Rutgers University), Robert A. Berner (Yale University), Manuel Cardona (Max Planck Institute for Solid State Research, FRG), Eugene Commins (Berkeley), Donald M.

I'M REALLY STRUCK BY OXFORD'S
NEW CRYOGENIC CONTROLLER...
EXCLUSIVE 3-SENSOR INPUT & DISPLAY...
256-STEP LINEARIZATION, 3-TERM
CONTROL...DIGITAL PROGRAMING AND
READOUT...



Everyone's
talking about
our new
controller.



OXFORD
A Member of the Oxford Instruments Group plc

Oxford Instruments North America Inc.
3A Alfred Circle, Bedford, MA 01730, USA
Tel: (617) 275-4350
Oxford Instruments Limited
Osney Mead, Oxford, OX2 0DX, England
Tel: (0865) 241456

Circle number 69 on Reader Service Card