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tion and experiments in multicomponent semiconductor systems, selected topics in energy-band theory, electron transport in organic monomers and complexes, electron transport in polymeric molecular solids, thermomagnetic transport in semiconductors, thermoelectric and thermomagnetic phenomena.

Photonuclear Reactions (August 5-9): the photodisintegration of light elements, fluorescence of nuclear levels below the particle threshold, experimental evidence for higher-order multiple excitations, electron-induced reactions and collective excitations, excitation of nuclear states by heavy-particle bombardment, review of particle-hole calculations and shell-model theory, contributions to nuclear structure from high-energy experiments, photonuclear cross sections above the giant resonance, new experimental techniques applied to particle-emission cross sections.

Additional conferences at Tilton will be held on Biochemistry and Agriculture (June 10-14), Air Quality Criteria (June 17-21), Organic Coatings (July 15-19), Organic Reactions and Processes (July 22-26), Energy-Coupling Mechanisms (July 29-August 2), Fluorine Chemistry (August 12-16), Geochemistry—Origin of Petroleum (August 19-23), Glass (August 26-30).

Attendance at each conference will be limited to about 100 persons. Requests for application forms and other correspondence should be sent to W. G. Parks, Director, Gordon Research Conferences, University of Rhode Island, Kingston, R. I. After June 10, Dr. Parks can be reached at Colby Junior College, New London, N. H.

Earth Sciences

More than 3000 scientists from 61 countries are expected to attend the thirteenth triennial General Assembly of the International Union of Geodesy and Geophysics, which will meet for two weeks in Berkeley this summer. Opening on August 19 and extending through the 30th, the meeting will be held with the cooperation of the University of California and the National Academy of Sciences.

Inquiries concerning the activities of the separate International Associations should be directed to the appropriate Association Secretary: *Meteorology and Atmospheric Physics*, W. L. Godson, Meteorological Office, 315 Bloor Street, W., Toronto 5, Canada; *Seismology and the Physics of the Earth's Interior*, J. P. Rothé, 38, boulevard d'Anvers, Strasbourg, France; *Geodesy*, J. J. Levallois, 19, rue Auber, Paris 8, France; *Geomagnetism and Aeronomy*, Rev. J. O. Cardús, S.J., c/o Observatorio del Ebro, Apdo. 9, Tortosa, Spain; *Physical Oceanography*, B. Kullenberg, c/o Oceanografiska Institutet, PO Box 1038, Göteborg 4, Sweden; *Scientific Hydrology*, L. J. Tison, 61, rue des Ronces, Gentbrugge, Belgium; *Volcanology*, F. Penta, Istituto di Geologia Applicata, Via Eudossiana 18, Rome, Italy.

From August 12 to 16, immediately before the IUGG assembly, the National Academy of Sciences—National Research Council, and possibly the Comité International Geophysique, will sponsor a symposium at the University of California at Los Angeles on data obtained during the International Geophysical Year. Financial

PHYSICS TODAY

Avco-Everett Research Laboratory

The Avco-Everett Research Laboratory was established in 1955 to investigate the critical problem of re-entry. Using shock tubes, AERL scientists simulated in the Laboratory the gas condition encountered by a missile nose cone during re-entry into the earth's atmosphere. The successful solution unlocked the door to the present era of missile and space technology. Attention currently is centered on the study of wakes produced by re-entering bodies and heat transfer problems of lunar and interplanetary probes. A logical extension of this work is its application to methods to develop an effective defense against long-range missiles.

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assistance has been obtained from the International Union of Pure and Applied Physics, and the Academy plans to present through review papers, and eventual publication, a record of much of the data resulting from that program.

About forty review papers will be read by scientists nominated by their international colleagues in two simultaneous sessions: (1) Solid Earth and Interface Phenomena, including topics in geodesy, gravity, seismology, oceanography, glaciology, and meteorology, and (2) The Upper Atmosphere, Solar-Terrestrial Relations, and Near Space, including solar physics, geomagnetism, cosmic rays, ionospheric physics, aurora and airglow, aeronomy, and the interplanetary medium.

There will be a reception on August 13th and a dinner on the 15th. Requests for additional information should be addressed to Dr. Hugh Odishaw, Geophysics Research Board, National Academy of Sciences, 2101 Constitution Avenue, Washington 25, D. C.

Astrodynamics

The American Institute of Aeronautics and Astronautics (the merged American Rocket Society and Institute of the Aerospace Sciences) is planning an interdisciplinary conference on "astrodynamics" which will involve a variety of problems in celestial mechanics and analytical dynamics. The meeting will take place August 19-21 at Yale University. Sessions will deal with the selection, prediction, and determination of orbits, with the modification of trajectories, and with all relevant physical constants. Inquiries should be sent to the AIAA at 500 Fifth Avenue, New York 36, N. Y.

Reliability of Electronic Components

The second annual symposium on the physics of failure in electronics, under the auspices of the Rome Air Development Center and the Armour Research Center of the Illinois Institute of Technology, will take place in Chicago, September 25 and 26. The meeting proposes to bring together investigators working on electronic reliability to evaluate recent programs, to consider the course of future research, and to examine the applicability of fundamental physics research to electronic reliability.

Abstracts (in triplicate, 300 to 500 words) and an author's biography, are due by June 7. All correspondence should be sent to Morton Goldberg, Armour Research Foundation, Technology Center, Chicago 16, Ill.

Optical Glass

In Great Britain, the Optical Group of the Institute of Physics and the Physical Society is organizing a conference on the physics of optical glass, to be held on October 3 and 4 at the research laboratories of Pilkington Bros. Ltd, Lathom, Lancashire. The main topics proposed for discussion are (1) special glasses, including new optical glasses for special application in ultraviolet