

### **PHYSICISTS**

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Contact in strict confidence:

Dr. L. V. Sloma, Associate Director— Physics & Electronics

# ROY C. INGERSOLL RESEARCH CENTER

Borg-Warner Corporation, Des Plaines, Ill.

# Meetings

#### Gordon Research Conferences

THE Gordon Research Conferences for 1960, consisting of three parallel series of twelve sessions each, will take place from June 13 to September 2 at three New Hampshire schools: Colby Junior College in New London, New Hampton School in New Hampton, and Kimball Union Academy in Meriden. The purpose of the conferences is "to bring experts up to date on the latest developments, to analyze the significance of these developments, to provoke suggestions concerning the underlying theories and profitable methods of approach for making progress".

The conference programs are arranged with week-day meetings in the mornings and evenings and with afternoons left free for recreation and informal discussions. Although the majority of the 36 conferences listed below are oriented toward chemistry and the biological and medical sciences, brief indications of some topics to be covered are included for those sessions which seem most likely to be of interest to physicists.

Colby Junior College

Nuclear Chemistry (June 27-July 1): experimental and theoretical discussions of beta decay, radioactive decay schemes, nuclear structure, and fission.

Instrumentation (August 1-5): impressions of Russian instrumentation, high-altitude balloon research and instrumentation, levels of intelligence in automata, use of atomic wavelengths for precision length measurements, applications of computers, and research proposals in instrumentation.

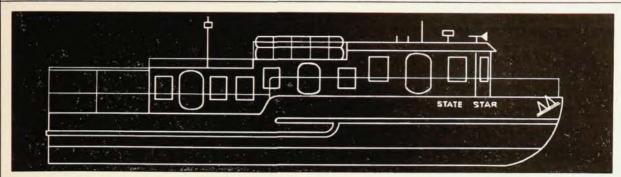
Other conferences at Colby will include: Petroleum—Friction, Lubrication, and Wear (June 13–17), Elastomers—Structure and Properties (June 20–24), Polymers (July 4–8), Textiles (July 11–15), Corrosion (July 18–22), Separation and Purification (July 25–29), Food and Nutrition (August 8–12), Medicinal Chemistry (August 15–19), Catalysis (August 22–26), and Cancer (August 29–Sept. 2).

New Hampton School

Information Processing for Critical Tables of Scientific Data (June 20-24): discussion of various data projects, simplification of unit systems, indexing and ordering, use of digital computers in preparing tables, and problems involved in processing information.

Chemistry and Physics of Isotopes (July 4-8): biochemical and biological aspects of deuterium isotope effects, isotope separation, isotope effects on the equation of state of condensed phases, isotope abundance measurements in geochemistry, secondary hydrogen isotope effects, and kinetic isotope effects in reaction mechanism studies.

Radiation Chemistry (July 18-22): intermediates in radiolysis, resonances in radiation effects, ion-molecule



## HYSICIST

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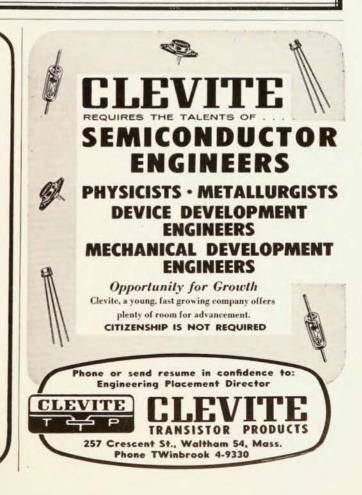
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### PHYSICIST SUPERVISING

Expanding Physics department of moderate sized industrial organization, Eastern U.S. needs a physicist with creative and administrative talent to supervise program of applied research. Studies are currently being made on semiconductors, electrical properties of high temperature materials, physical properties & crystal growth.

Send replies to Physics Today, Box 560, 335 East 45 St., N.Y. 17, N.Y.

### MOLECULAR SPECTROSCOPIST FOR HIGH TEMPERATURE RESEARCH

Physicist with background in the spectra of small molecules is needed to conduct basic research on the spectra of high temperature systems. Current projects include investigation of plasmas, flames, detonations, and heated gases. Working knowledge of vibration-rotation spectra and familiarity with infrared instrumentation is desirable. Salary and specific responsibilities will depend upon the individual. Send resume to Laboratory Manager.

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reactions in gases, low-temperature studies, radiationinduced decomposition of crystalline solids, and vacuum ultraviolet photochemistry.

Also scheduled at New Hampton School are conferences on Chemistry of Coal (June 13-17), Proteins and Nucleic Acids (June 27-July 1), Statistics in Chemistry and Chemical Engineering (July 11-15), Organic Reactions and Processes (July 25-29), Steroids and Other Natural Products (August 1-5), Organic Coatings (August 8-12), Analytical Chemistry (August 15-19), Inorganic Chemistry (August 22-26), and Adhesion (August 29-Sept. 2).

Kimball Union Academy

Physical Metallurgy—Relation of Structure and Properties (June 27–July 1): impurities and defects in superconductors, resistance minimum in dilute paramagnetic alloys, thermoelectric phenomena at low temperatures, deformation, dislocation, shock loading, oxidation, fracture, thin films, and dispersions and creep.

High-Pressure Research (July 18-22): diamond synthesis, new high-pressure techniques and experiments, phase transitions, geophysical research at UCLA, high-pressure resonance work at Harvard, and the physical and chemical effects of underground nuclear explosions.

Chemistry and Metallurgy of Semiconductors (July 25-29): crystal growth, impurity phenomena, surface chemistry, chemical bonding in semiconductors, and correlation of physicochemical and electronic properties.

Solid-State Studies in Ceramics (August 1-5): macrostructure and microstructure of crystalline materials and mechanical, magnetic, ferroelectric, and dielectric properties of ceramics.

Chemistry and Physics of Solids—Point Defects (August 8-12): will include a round-table review of dielectric relaxation and internal friction and papers dealing with studies of point defects in various materials.

Infrared Spectroscopy (August 22-26): theory and applications, recent advances in infrared research, and a progress report on the status of infrared masers.

Also included in the Kimball program are conferences on Lipide Metabolism (June 13-17), Cell Structure and Matabolism—Secretion (June 20-24), Chemistry at Interfaces (July 4-8), Chemistry, Physiology, and Structure of Bones and Teeth (July 11-15), Toxicology and Safety Evaluations (August 15-19), and High-Temperature Chemistry—Kinetics of Vaporization and Condensation Processes (August 29-Sept. 2).

Attendance at each conference will be limited to about 100 persons and those interested in attending are requested to submit their applications at least two months prior to the date of the particular meeting. Requests for the required application forms or for additional information should be addressed to the director of the Gordon Research Conferences, W. George Parks, Department of Chemistry, University of Rhode Island, Kingston, R. I. (From June 13 to September 2, communications to Dr. Parks should be addressed to Colby Junior College, New London, N. H.)

#### Atomic and Molecular Gas Beams

EXTRA-NUCLEAR effects will be stressed at the Atomic and Molecular Beams Symposium to be held June 20–22 at the Park Lane Hotel, Denver, Colo., under the cosponsorship of the National Aeronautics and Space Administration and the Denver Research