

# Polymer Physics and Physical Chemistry

Immediate openings exist at our Washington Research Center for Ph.D. physicists and physical chemists to engage in basic research in the field of high polymers. Specific areas of interest include:

- Solid state properties
- Rheology
- Characterization and structure
- Kinetics and mechanisms of polymerization

The Washington Research Center is the central research facility of W. R. Grace & Co., and is located in rural Maryland midway between Washington and Baltimore.

Send resume in confidence to: Dr. David M. Clark



**W. R. GRACE & CO., RESEARCH DIVISON**  
**WASHINGTON RESEARCH CENTER, CLARKSVILLE, MD.**

*An equal opportunity employer*

## OPPORTUNITY FOR MEN OF DEMONSTRATED ABILITY

We are seeking scientists of proven ability to assume research and management positions with our client companies. As these are extremely responsible positions, interested scientists must be able to demonstrate significant scientific accomplishment in one of the following areas:

infrared . . . nuclear physics . . .  
thermodynamics . . . radar systems . . .  
communications theory . . . plasma  
physics . . . semi-conductor research  
. . . magnetism . . . thin films . . .  
inorganics . . . satellite systems . . .  
acoustics . . . optics . . . cryogenics  
. . . or thermionics.

If you qualify for these positions offering remuneration up to \$30,000 you are invited to direct your resume in confidence to:

Mr. Vincent A. Nickerson  
Dept. A-8



"EMPLOYMENT SPECIALISTS"

150 Tremont Street  
Boston 11, Massachusetts  
HAncock 6-8400

cloud physics, precipitation mechanisms, convection processes, dynamic models of convection, cloud studies by satellite, thunderstorm electricity, and dynamics of cloud systems. Papers on cloud seeding, weather modification, and weather radar will be excluded unless they contribute to the basic understanding of the physics and dynamics of clouds.

November 4 is the deadline for submitting titles and 200-word abstracts of contributed papers. They should be sent to Miss Dorothy L. Bradbury, Department of Geophysical Sciences, University of Chicago, Chicago 37, Ill. Other correspondence regarding the meeting should be addressed to the American Meteorological Society, 45 Beacon Street, Boston 8, Mass.

### Surface Phenomena

An international conference on the physics and chemistry of solid surfaces will be held at Brown University from June 21 to 26, 1964. Planned as an interdisciplinary meeting for physicists, chemists, and metallurgists, the conference will be confined to topics bearing on the fundamental understanding of phenomena associated with the surfaces of metals, semiconductors, and insulators. Special emphasis will be placed on the nature of crystal surfaces, the role of surface structure in affecting atomic and electronic events, and on the interaction between chemical phenomena and electronic processes at interfaces.

Inquiries should be addressed to Prof. H. E. Farnsworth, Corresponding Secretary, Brown University, Providence, Rhode Island.

### Combustion

The Chemical Laboratory of Cambridge University will be the headquarters for the tenth international symposium on combustion, which is to take place August 17-21, 1964. Sponsored by the Combustion Institute and the Cambridge Physical Chemistry Department, the meeting will be concerned primarily with two topics: (1) elementary combustion reactions, including reactions of both ionized and neutral species; and (2) fluid dynamics in combustion, including buoyant, low-velocity, supersonic, and unstable processes. There will be brief presentations of invited papers in closely related groups, followed by extensive discussion.

In addition to papers relating to the two discussion topics, the program is expected to deal with various areas of combustion, including air pollution resulting from incomplete combustion in reciprocating engines, electrical properties of flames, and theoretical and experimental ignition studies.

Four copies of 1000-word abstracts should be submitted by January 15 to the Combustion Institute, 986 Union Trust Building, Pittsburgh 19, Pa. Requests for hotel accommodations should be sent to the Secretary, Combustion Symposium Local Committee, Department of Physical Chemistry, Lensfield, Cambridge, England.