

LASER MASER

RUBY RODS *fabricated to exacting specifications*

VALPEY CRYSTAL CORPORATION is prepared to supply special chromium doped ruby rods fabricated to your specifications with quick delivery.

We can supply rods fabricated from low strain, annealed ruby boules specifically grown for optical and microwave maser applications at 0° or 90° orientations. We have available for quick delivery 0.05, 0.5, and 1.5 weight percent Cr₂O₃: Al₂O₃ concentrations. Other chromium dopings also available. Valpey will also fabricate your material.

Depending on orientation we can supply rods from .080" diameter up to 750" diameter and up to 8" in length.

We can supply rods to the following specs:

- C axis orientation to within 10 minutes.
- End surfaces optically polished flat to 1/5' wave of sodium light.
- Ends parallel to within .000010" over 3/4" diameter.
- Tolerance on length $\pm .005"$, diameter $\pm .001"$
- Tolerance on 90° angle between end faces and cylindrical surfaces within 1 minute.

Valpey's precision optical department is also prepared to fabricate other materials to your specifications.

Please submit your specifications for a prompt quotation.

VALPEY CRYSTAL CORPORATION

Holliston, Mass. • Tel. GArden 9-4851, 9-4854

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The above is some of the information sent systematically to all American Institute of Physics Student Sections. There are now 5,000 student members in over 165 sections.

A booklet describing in detail the procedure for establishing Student Sections and the benefits which student organizations derive from membership will be sent upon request. Address all inquiries to:

Mrs. Ethel E. Snider, National Secretary
Student Sections
American Institute of Physics
335 East 45th Street
New York 17, N. Y.

the number of faculty members engaged in various aspects of materials research will be increased about 25 percent. The University has also predicted an increase of about 70 percent in the number of graduate students primarily concerned with such studies.

The accelerated program will be conducted mainly in the Institute for the Study of Metals and in the Physics Department, although, to a lesser extent, both the Chemistry Department and the recently-established Department of Geophysical Sciences will be involved. With the added funds provided under the contract with ARPA, the University anticipates a total expenditure of nearly \$11 million in government and University funds in support of materials research at Chicago during the four-year period.

Polymer Research

A center for fundamental research in the science of polymers, currently under construction at North Carolina's Research Triangle Institute, is expected to be ready for initial occupancy in September upon the completion of the first unit of RTI's new Camille Dreyfus Laboratory. The Laboratory, which is named in memory of the founder and first president of the Celanese Corporation of America, will be under the direction of Anton Peterlin, who has served for the past year in Germany as head of the Physics Institute at Munich's Technische Hochschule. Known for his research in the rheological and optical properties of liquids and polymer solutions, Dr. Peterlin is a native of Yugoslavia and during the ten-year period 1949-59 he headed the J. Stefan Institute of the Yugoslav Atomic Energy Commission. In 1959-60, before going to Munich, he served as a visiting professor at Harvard and at Wayne State University.

The establishment of the Dreyfus Laboratory, one of five divisions and laboratories within RTI, was made possible by a \$2.5 million grant provided by the Camille and Henry Dreyfus Foundation of New York City. The center's research staff will conduct basic investigations in the physics and chemistry of polymers and their derivatives. In addition to its fundamental studies, the Laboratory is expected to be engaged in some applied activities supported by outside contracts.

Cryogenics

A low-temperature facility to be used in applied research and development of cryogenic products, particularly those involving the application of liquid hydrogen, is to be constructed in Davenport, Iowa, by the Pioneer-Central Division of the Bendix Corporation. The Bendix Cryogenic Development Laboratory will be under the direction of Thomas Flynn and will be equipped for the study of liquid-state gases at temperatures as low as -459°F. It will be operated in conjunction with a liquid-oxygen research facility which has been maintained by the company for nearly 18 years.