

EXPANDING SCIENTIFIC STAFF

These are positions of considerable technical responsibility in a company-financed group. Combines professional flexibility in research with the resources and stability of a major corporation. Preference will be given to persons with PhD and research experience.

SOLID STATE RESEARCH

Senior person experienced in solid state effects concerned with semi-conductors, photoelectric and photovoltaic effects, thermoelectricity, magneto-resistivity, etc. Responsible for initiating and guiding programs. Also, recent PhD for specific research in these fields.

THERMODYNAMICS & HEAT TRANSFER

Variety of problems in heat flow, thermodynamics, and engineering mechanics concerned with company propriety interests.

THEORETICAL PHYSICS

Provide support in various fields, and conduct exploratory studies in such areas as energy conversion, switching circuit theory, etc.

Please contact:

Dr. H. I. Fufeld, Director

CENTRAL RESEARCH LABORATORY



American Machine & Foundry Company
P. O. Box 889 — Stamford, Connecticut

● SENIOR RESEARCH PHYSICISTS

The Research & Advanced Development Department at Stromberg-Carlson, a Division of General Dynamics Corporation, needs Physicists to undertake research in certain areas of the solid state field.

At the present time our fields of interest include:

• Photoconductivity • Ferro-electricity • Paramagnetism

The Ph.D. degree is required, although specific experience in these fields is not absolutely essential.

These are career opportunities in a company that offers stability combined with rapid growth. You would be located in Rochester, N. Y., a beautiful city in the heart of the Upstate vacation area. Educational and cultural facilities here are unsurpassed anywhere in the U. S.

Please send a complete résumé to:

FRED E. LEE, Manager of Technical Personnel.

STROMBERG-CARLSON

A DIVISION OF GENERAL DYNAMICS CORPORATION

1413 N. GOODMAN STREET
ROCHESTER 3, N. Y.

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The Institute

The Teacher Shortage in Physics

CONVINCING new evidence that US colleges and universities are not able to satisfy their needs for qualified physics teachers has been found in the results of a recent survey carried out by the American Institute of Physics. Some of the findings of the study, which was conducted under the direction of William C. Kelly, head of the Institute's program in physics education, are as follows:

Of the 536 American colleges and universities which have a four-year undergraduate major program in physics, a total of 490 (91%) took part in the survey, and of these, 451 institutions reported that their needs for physics teachers are not being met in some degree and that they have had to resort to various substitutes for the services of full-time qualified teaching personnel. Only 39 schools reported that their needs for physics teachers are now being met. During the 1957-58 academic year, sufficient funds were allocated for 403 new appointments of PhD physicists but it was estimated that only 254 new PhD's would be available for such appointments.

49% of the institutions replying said that their physics teachers are carrying teaching overloads. Another 30% reported that graduate or undergraduate assistants, most of them with little teaching experience, are being relied upon to an "undesirable degree".

46% of the schools responded that the time available to physicists for research and other scholarly activities has been "markedly reduced" as a result of heavy teaching loads.

21% of the physics departments reported that they have had to cancel classes because of inadequate staff; another 36% reported an undesirably large increase of class size; and one-third said that teaching duties have been assigned to part-time, although qualified, teachers from outside the institution's department of physics.

Departmental chairmen estimate that a total of 688 PhD physicists are needed to correct the shortages in colleges and universities. The number of new PhD's in physics in 1956-57 amounted to 444, of which more than half chose full-time research jobs in preference to teaching.

The situation in the physics departments of small institutions is considered to be especially disturbing. Half of the unfilled positions are in physics departments with staffs of six or fewer teachers. At the same time, half of the bachelor's degrees in physics are being granted by these departments.