

RESEARCH SCIENTIST

The Physics Department of the General Motors Research Laboratories has an immediate opening for a Ph.D. level scientist to join our research staff.

We are seeking an experienced physicist, materials scientist or electrical engineer to initiate and conduct long range research on GaAs and related materials for application to high brightness light emitting diodes and other GaAs devices. This position is in our Electro-Optical Physics group and offers an opportunity to explore growth of III-V alloys and fabrication of novel device structures.

General Motors offers a competitive salary and benefit package and an attractive, stimulating working environment at our Technical Center in suburban Southeastern Michigan. Applicants must have a citizenship or visa status which permits them legally to accept permanent employment under U.S. Immigration laws. If these opportunities match your qualifications and interests, send a resume to:

Dr. Frank E. Jamerson
Head, Physics Department 313-575-2839

An equal opportunity employer



**General Motors
Research Laboratories
Warren, MI 48090-9055**

SCIENCE ASSISTANTS

The Physics Department of the General Motors Research Laboratories has immediate openings for technical associates to join our research staff.

A college degree (B.S. or M.S.) in Physics, Materials Science or Electrical Engineering is required. Experience in one or more of the following areas is desirable: operation of cryogenic and vacuum thin film deposition equipment, optics/spectroscopy, and microscopy (electron and optical). You would be an active participant in new materials research programs which include novel narrow band gap semiconductor quantum well structures, metallic superlattices, MOCVD of GaAs and growth of graphite fibers by carbon CVD. In addition, we conduct spectroscopic research in combustion and on surfaces that involves advanced laser diagnostic methods.

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Mr. J. B. Sparhawk
Manager, Staffing Coordination

An Equal Opportunity Employer



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**UNITED
TECHNOLOGIES
RESEARCH
CENTER**

SCIENTISTS HIGH-TEMPERATURE COMPOSITE MATERIALS

The Materials Science Group at United Technologies Research Center is seeking highly qualified scientists to join its multidisciplinary team working in the development of advanced high-temperature composite materials. Our current program involves the research and development of fiber-reinforced metals, glasses, and ceramics as well as carbon-carbon and advanced high-temperature coatings. This work is directed at developing a much clearer and more complete basic understanding of the materials and processes involved as well as creating new materials to meet the needs of future applications.

The persons we are looking for would be involved in:

- The creation of advanced composites having metal, glass and ceramic matrices and reinforcements chosen from a wide range of fibers, whiskers and particulates.
- The synthesis of advanced glass and ceramic matrices through the use both melting and sol gel techniques.
- The synthesis of composites and coatings using chemical vapor deposition techniques.
- The study of the composite interfaces and chemical compatibility and stability of the composites and starting constituent materials.
- The characterization of composite performance over a wide range of test conditions.
- The tailoring of these materials to meet a broad range of needs for gas turbine engines, space systems and a wide range of other high-technology applications.

Qualifications of any applicant should include the following:

- A doctorate in ceramics or materials science with or without additional related experience.
- U.S. Citizenship.
- Be highly motivated to initiate and carry out research projects.
- Written and oral communication skills that will permit active participation in the laboratory and the technical community at large.

United Technologies Research Center is the central research facility of the United Technologies Corporation. Located in East Hartford, Connecticut it is a facility of approximately 1,200 personnel engaged in a broad range of R&D activities. The Materials Science Group within UTRC has the responsibility for the development of advanced ceramics, composites, coatings and high-temperature materials.

For further information please contact Mr. J. Farrell, Personnel Operations, United Technologies Research Center, E. Hartford, Conn. 06108, Tel. 203-727-7110.