

TITLE: Fiber, composites, and polymer scientist (U.S. Citizens preferred)

About the role

The Materials Measurement Laboratory of the National Institute of Standards and Technology is seeking qualified candidates (U.S. Citizens Preferred) for a fiber, composites, and polymer scientist position to lead metrology development in thermomechanical/thermal analysis, chemical analysis, electron microscopy, and structure–property relationships for complex high strength fibers as well as polymeric and composite materials. This role requires hands-on ownership of advanced instrumentation, development of robust and reproducible test methods, and translation of results into actionable guidance for materials design, performance evaluation, and reliability.

Key Duties:

- Design and execute thermomechanical characterization of polymeric/composite systems
- Develop techniques to fabricate model fiber/composite systems with novel properties
- Lead thermal, thermomechanical, and chemical/structural characterization of materials
- Author peer-reviewed publications and present research to stakeholders
- Support collaborative programs and deliver stakeholder technical solutions

Required Qualifications:

- Expertise in molecular spectroscopy, with experience analyzing single fibers
- Hands-on experience with thermal analysis (DSC, DMA/TGA/TMA)
- Experience working with complex materials (high-strength fibers, composite armor, or structural composites)
- Background in polymer viscoelasticity and physics
- Strong quantitative/data skills (Matlab/Python/Origin)
- Demonstrated record of technical writing and public speaking
- Ability to lead projects, mentor students/postdocs, and coordinate collaborations

Desirable Qualifications:

- Experience in long-term reliability studies

Employment Terms: This opportunity is for an associate researcher in the NIST Materials Measurement Science Division for a term of 1 year, with options to renew. Associate researchers are NOT Federal Employees, but they work along with NIST researchers and with NIST's often world class instrumentation. Relocation expenses will not be provided. U.S. Citizens hired into associate positions may have the opportunity to seek longer term Federal Employment.

Salary: up to \$120,510 annually, commensurate with the candidate's qualifications and experience

How to express interest: Persons (US Citizens Preferred) who meet all of the required qualifications and who would be interested in taking this position are invited to express their interest by sending an email that briefly describes their qualifications along with a CV to 643assoc@nist.gov. U.S. Citizens should note "US Citizen" and the opportunity title in the email subject line. All others should note "Non-US Citizen" and the opportunity title in the email subject line.