High Temperature Thermophysical Property of Nuclear Fuels and Materials

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Collaborators: N/A

Program: General Scientific Infrastructure Support

ABSTRACT:

The goal of project is to purchase key equipment to strengthen core nuclear capability in the strategic thrust area of instrumentation and measurements at the University of Pittsburgh (Pitt). Specifically, a laser flash analyzer and a thermal mechanical analyzer (thermal expansion) will be purchased as a tool suite for complete thermophysical property information, and to fill an infrastructure gap to enhance research closely aligned with, yet complementary to, DOE and INL programs. The PI has leading expertise in nuclear material thermal properties and reactor instrumentation and measurements, and is supporting DOE nuclear energy programs, such as FCR&D, NEUP-IRP and ATR NSUF, yet lack the lab capability after recently moved to Pitt to lead the nuclear engineering program. The equipment will be heavily used in several current DOE-NE projects, as well as benefit many faculty members involved in nuclear materials research. The project will also attract and train undergraduate and more importantly graduate students to nuclear research and enhance nuclear education at Pitt. The equipment from this project will be part of the overall effort to revitalize nuclear research in the Stephen Tritch Nuclear Engineering Program at the University of Pittsburgh.