

Nuclear Science User Facilities Program Sandia Participation and Opportunities

K. Hattar, W.J. Martin, D.J. Hanson, M. Wasiolek

Sandia National Laboratories, PO Box 5800 Albuquerque NM, USA 87185

The nuclear facilities and world class instruments at Sandia National Laboratories used to explore response of materials, components, and systems to complex radiation environments were recently recognized as being essential to address some of the fundamental concerns to both extending the life of current nuclear reactors and developing advanced materials for future generations of fission reactors. As such, in April of this year, Sandia and Department of Energy Office of Nuclear Energy (DOE-NE) signed a Memorandum of Understanding (MoU) to include Sandia's Ion Beam Lab and Technical Area Five (TA-V) into the Nuclear Science User Facilities (NSUF) program. This seminar will provide an overview of the history, scope, and direction of the NSUF program, as it has been conveyed to us. This will include a discussion on the opportunities for increased collaboration on a range of NE related topics that are possible as a result of the MoU.

The remainder of the talk will step through the unique instruments and facilities at Sandia that are accessible free of charge to carry out research and experiments that were selected to receive NSUF support. These include the Annular Core Research Reactor (ACRR), Gamma Irradiation Facility (GIF), and the Ion Beam Lab (IBL). The examples of research topics consistent with the NE mission will be provided.

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Khalid Hattar represents the Ion Beam Laboratory. He is a Principal Member of the Technical Staff at Sandia National Laboratories, which he joined in 2008.

Billy Martin represents the Annual Core Research Reactor Facility. He is a Principal Member of the Technical Staff at Sandia National Laboratories, which he joined Sandia National Laboratories in 2004 as a technical intern and remained in that position until finishing his doctoral dissertation in late 2011. He is also an Adjunct Professor at the Department of Nuclear Engineering at the University of New Mexico.

Maryla Wasiolek and Don Hanson represent the Gamma Irradiation Facility. Maryla is a Principal Member of the Technical Staff since 2006 and Don is a Distinguished Technologist. Don has been operating the GIF and conducting irradiation experiments for over 15 years.