

THE
CATHOLIC UNIVERSITY
of AMERICA



Department of Physics
Colloquium

Winnie Wong-Ng

National Institute of Standards and Technology

Overview of the Thermoelectric Research at National Institute of Standards and Technology

A challenge of the global economy in the new millennium is for both emerging and mature industries to provide inexpensive, efficient, compact and environmentally friendly cutting-edge technologies for energy conversion applications. In response to these needs, in recent years, research activities at the Materials for Sustainability Group of Materials Measurement Science Division at NIST have included standards, metrology, and data of thermoelectric materials as part of its program. The development and distribution of standard reference materials (SRM™) for instrument calibration and for inter-laboratory data comparison, and development of databases (such as phase equilibria and crystallographic) have been some of the NIST core scientific activities. In this talk, I will summarize the background on thermoelectric materials, followed by a discussion of our efforts on the SRM development of the low temperature Seebeck coefficient standard for bulk thermoelectric materials, of metrology developments for combinatorial films, and our efforts on structural characterization and pertinent phase diagram determination for thermoelectric applications.

Wednesday, April 26, 2017

4:00pm

108 Hannan Hall

Refreshments will be served at 3:45

Sponsored in part by the Graduate Student Association

For more information or if you would like to request disability accommodations, please contact:

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