Tuesday, March 5, 2013

8:30 a.m., Welcome and Introduction by Organizing Committee*
8:40 a.m., Introductory Remarks by Allison Macfarlane, Chair, U.S. Nuclear Regulatory Commission

9:00 a.m.
Contributions of Primary and Secondary Particles to Observed LET for the CRaTER Instrument on LRO
Jamie A. Porter
University of Tennessee

9:20 a.m.
Investigation of Tungsten as a Plasma Facing Material for Fusion Reactors
Lauren M. Garrison
University of Wisconsin-Madison

9:40 a.m.
The Development of Novel Diagnostic Techniques for Plasma Surface Interaction Studies in Tokamaks and Thrusters
Regina M. Sullivan
MIT

10:00 a.m.
Diagnosing Implosion Performance at the National Ignition Facility (NIF) by means of Neutron Spectrometry – An Essential Technique for Guiding the Program Toward Thermonuclear Ignition
Maria Gatu Johnson
MIT

10:20 a.m. break

10:35 a.m.
Development of Advanced Post Irradiation Examination Techniques to Understand the Evolution of Microstructure and Chemistry of Oxide Fuels Under Irradiation
Melissa C. Teague
Idaho National Laboratory

10:55 a.m.
Using Nonlinear Ultrasound to Characterize Radiation Damage in Steel
Kathryn H. Matlack
Georgia Institute of Technology

11:15 a.m.
Electronic Activation at Oxide Superlattices at Elevated Temperatures — Source of Markedly Accelerated Oxygen Reduction Kinetics
Yan Chen
MIT

11:35 a.m.
Hydrologic Contaminant Transport Models in Cyder
Kathryn D. Huff
Argonne National Laboratory

11:55 a.m., Lunch at the Faculty Club, E52 - 6th Floor, 50 Memorial Drive

1:45 p.m.
Composite-Pulse Magnetometry with a Quantum Sensor in Diamond
Clarice D. Aiello
MIT

2:05 p.m.
Radiation Dose-Effects Relationships in Populations of the Aquatic Snail, Campeloma Decisum
Elizabeth Houser
Oregon State University

2:25 p.m.
Nanofluids with Tunable and Extraordinary Thermal Properties
Shima P. Damodaran
Ecole Supérieure de Physique et de Chimie Industrielles (ESPCI)

2:45 p.m.
Natural Circulation Cooling of Liquid Salt Pebble Bed Reactors and the Design of Complex Systems to Achieve Passive Safety
Raluca O. Scarlat
University of California-Berkeley

3:05 p.m. break

3:30 p.m.
Panel Discussion
How to Get a Faculty Position... And Survive it
Panelists: Profs. Jacopo Buongiorno**, Paola Cappellaro**, Krystyn J. Van Vliet†, Anne White** and Bilge Yildiz**

4:30 p.m. Wrapup

* Organizing Committee: Prof. Paola Cappellaro, Prof. Anne E. White, Prof. Bilge Yildiz
** MIT Department of Nuclear Science and Engineering
† MIT Department of Materials Science and Engineering