



# American Chemical Society Susquehanna Valley Section

## MARCH 2011 NEWSLETTER

The three hundred ninety fifth meeting of the American Chemical Society Susquehanna Valley Section will be held on Wednesday, March 16, 2011 at Balzano's Restaurant Corner Gatherings. Balzano's is located next to the Bloomsburg University Campus at 208 East Second Street, Husky Korner Plaza, Bloomsburg, PA. The meeting will begin at 7:30 PM. The speaker will be Dr. Wook Jun Nam of the Pennsylvania State University.

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### *" Nanotechnology in Solar Cell Devices "*

Dr. Wook Jun Nam  
Research Associate  
Center for Nanotechnology Education and Utilization  
Pennsylvania State University

Director of Research  
Solarity LLC

Current solar cell devices employing planar architectures collect photo-generated carriers at their top and bottom electrode surfaces. This configuration limits the thickness of the light absorbing layer to be approximately the same as the collection length of the charge carriers. This limitation becomes more severe problems for potentially inexpensive materials of interest to thin film solar cells because of their poor material characteristics. Nano-scale structures or elements have high potential to achieve (1) better light management to minimize reflection and trap light in the absorber material and (2) more effective carrier collection management to harvest all photo-generated carriers produced in the absorber. Novel device architectures utilizing these sub-wavelength features will be introduced and discussed.

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Dr. Wook Jun Nam is a Research Associate in the Center for Nanotechnology Education and Utilization at the Pennsylvania State University and the Director of Research at Solarity LLC which is a start-up company based on State College, PA. Dr. Nam holds B.S. and M.S. degrees in Materials Engineering from Sungkyunkwan University, Seoul, Korea, and a Ph.D. in Engineering Science from the Pennsylvania State University. Dr. Nam's interests are in design, process development, and characterization of micro- and nano-scale structures and materials. He holds several patents and is author of a number of research articles in the field of nanotechnology.

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**DINNER:** Dinner will be at 6:00 pm at Balzano's Restaurant Corner Gatherings at 208 East Second Street, Husky Korner Plaza, Bloomsburg, PA. Entrée selection will be from the menu with the prices \$20 and below.

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Section Web Page: <http://departments.kings.edu/SusquehannaValleyACS>

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