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- working on small scales

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Speaker of Session 11

NANOMECHANICS



Prof. Marilyn Minus is an Assistant Professor in the Department of Mechanical and Industrial Engineering at Northeastern University in Boston, MA, USA. She is also the director of the Macromolecular Innovation in Nano-materials Utilizing Systems Laboratory otherwise known as the MINUS lab. She received her Bachelor of Science degree in May 2002 from Georgia Institute of Technology in the area of Polymer, Textile, and Fiber Engineering. She received her Ph.D. in August of 2008 at Georgia Institute of Technology in Polymer Engineering. To date, the MINUS lab has received more than \$2.8 Million in funding from the Department of Defense, the Air Force Office of Scientific Research, DARPA, the Army

Research Office, and the National Science Foundation (NSF). Prof. Minus is a 2014 recipient of the NSF CAREER award.

Marilyn Minus' research is focused on addressing sustainability issues with the goal of producing energy efficient lightweight materials. These materials are based on polymer/nano-carbon composites. The goal is to understand fundamental phenomenon associated with polymer/nano-carbon structure development in the composites during processing procedures. The research work expands the scientific and technological base for understanding the manipulation of nano-scale matter during composite fabrication as it pertains to building mechanically superior materials. Her research interests also include structure-property relationships in polymer-based nano-composites, control of interfacial morphology and molecular interactions between the polymer and carbon nano-materials, as well as control of interphase structures and morphology in polymer-based hybrid materials.

She has published more than 30 scientific publications and presented over 20 conference papers in the area of polymer nano-composites. She is currently a member of American Chemical Society (ACS), Materials Research Society (MRS), and Society of Plastics Engineers (SPE).

