Carnegie Mellon
Materials Science and Engineering Seminar Series

Elsa Reichmanis

School of Chemical and Biomolecular Engineering
Georgia Institute of Technology

"*Advanced Polymeric Materials for Electronic Applications*"

Friday, March 26, 2010
11:30 A.M. Seminar in Scaife Hall 125

Since the invention of the point contact transistor over 50 years ago, semiconductor technologies have become a ubiquitous mainstay of our Society. Continued advancements in these technologies rely heavily on materials research spanning many areas including polymer and organic materials which play significant roles as sacrificial, passive and active layers in electronic and photonic devices. The research outlined in this talk will identify fundamental materials parameters that will allow for the definition of materials architectures leading to sub-nanometer scale dimensional control of features for future semiconductor fabrication technologies. The understanding of how to control materials architectures at this sub-nanometer level will lead to organic and polymer semiconductor materials technologies enabling the future vision for flexible, printed electronic devices and display technologies.

Elsa Reichmanis recently joined the faculty of the School of Chemical and Biomolecular Engineering of the Georgia Institute of Technology. Prior to joining Georgia Tech she was Bell Labs Fellow and Director of the Materials Research Department at Bell Labs, Alcatel-Lucent. She received her Ph. D. and BS degrees in chemistry from Syracuse University. In 1984, she was promoted to Supervisor of the Radiation Sensitive Materials and Application Group, followed by promotion to Head of the Polymer and Organic Materials Research Department in 1994. She is a member of the National Academy of Engineering and has received several awards for her work. She has also been active in professional societies, having been 2003 President of the ACS, and National Research Council activities. Her research interests include the chemistry, properties and application of materials technologies for photonic and electronic applications, with particular focus on polymeric and nanostructured materials for advanced technologies.