

Seminar Announcement

Dr. Dipa Ray

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Wednesday, September 30, 2009

11:00 a.m. SCIE 1511

“Cellulose Nanocomposites: Current Status and Future Prospects”

Cellulose nanocomposites are new class of materials that combine important properties of cellulose with amazing features of nanomaterials in a very exciting manner. The cellulose nanofibers are extracted from different renewable resources by various chemical and mechanical treatments. They are used as reinforcement in polymer matrices to develop green nanocomposites, which have remarkably improved material properties as compared to the matrix polymers or conventional micro- and macro-composite materials. Such enhancement in properties includes a higher strength and modulus, improved barrier properties, increased heat distortion temperature etc. This new class of cellulose nanocomposites is expected to capture new market in transportation, medical and packaging applications. This presentation will focus on the diverse natural resources used as precursor to generate cellulose nanofibers, separation/isolation technologies of cellulose nanofibers, the matrix polymers used for composite processing, the recent trends in the processing of nanocomposites, characterization of these materials and as well as on their probable applications.

Dr. Dipa Ray is working as a Lecturer in the Department of Polymer Science and Technology, University of Calcutta, India. Dr. Ray has thirty publications in peer reviewed journals, three book chapters and twelve conference papers. She has received the ‘Young Scientist Award’ in 2006 from Department of Science and Technology, India and has received ‘Career Award for Young Teachers’ from All India Council for Technical Education, India, in 2009. She is engaged in research in the area of Green Materials from renewable resources.

ALL ARE WELCOME

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