Interaction, Structure and Transport of Polymer Grafted Nanoparticles
RAMANAN KRISHNA MOORTI, University of Houston

Grafting polymers to nanoparticles has proven to be an effective means to disperse isotropic and anisotropic nanoparticles in polymer matrices. Depending on the grafting density, polydispersity and nature of polymer - nanoparticle interaction, such grafted nanoparticles can either be liquid-like, gel-like or crystalline solids. We examine here the nature of interactions between such grafted nanoparticles and correlate those to the structure, dynamics and transport in both solvent and polymer media.

1Thank NIST for beam time allocation and NSF for funding.