

Abstract Submitted
for the MAR15 Meeting of
The American Physical Society

Contrasting nanoparticles diffusion in synthetic and biopolymer solutions SHARMINE ALAM, INDERMEET KOHLI, ASHIS MUKHOPADHYAY, Wayne State Univ — We investigated the dynamics of gold nanospheres (AuNS) and nanorods (AuNR) in synthetic polymer (polyethylene glycol) and biopolymer (bovine serum albumin and mucin) solutions. The variables are particle size and shape, polymer volume fraction, etc. The fluctuation correlation spectroscopy (FCS) was used to measure the translational (D_T) and rotational diffusion (D_R) of gold nanoparticles. Comparison will be made for the nano-viscosities at different length scales. The nanoparticle dynamics within the mucus gel will be presented.

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Date submitted: 13 Nov 2014

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