

Abstract Submitted  
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**SANS studies of polymer chain conformation in the presence of nanofillers** SANAT KUMAR, REBECCA GODLASKI<sup>1</sup>, SUDEEPTO SEN, YUPING XIE, Rensselaer Polytechnic Institute — We will present the results from recent and ongoing SANS experiments on polystyrene nanocomposites containing silica nanofillers. Recent simulation results for the role of nanofiller on chain dimensions have been controversial. Nanocomposite samples corresponding to combinations of different weight percentages of the nanoparticles (highest being 5) and five matrix polymer molecular weight (highest being 550k g/mol) have been studied. We will report on chain dimensions and how they are altered by the presence of filler.

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