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Confinement and Interfacial Effects in Polymer Nanocomposites ADAM HOLT, University of Tennessee, JOSHUA SANGORO, YANGYANG WANG, ALEXANDER AGAPOV, Oak Ridge National Laboratory, ALEXEI SOKOLOV, Oak Ridge National Laboratory & University of Tennessee — The influence of different nanoparticles on segmental and chain dynamics of poly(2-vinyl-pyridine) nanocomposites is investigated by broadband dielectric spectroscopy (BDS), dynamic mechanical spectroscopy (DMS), and calorimetry. While remarkable changes in dynamics are observed with increasing nanoparticle loading, only weak effects in the segmental mobility are found. These results are discussed in the context of recent studies of polymer nanocomposites.

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