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**Calorimetry of Polymer Nanoparticles**

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Significant understanding regarding the dynamics of glassy polymers geometrically confined to the nanoscale has been obtained by investigating thin films. While thin films are an attractive model system to investigate the influence of confinement on material properties, measurements on other geometries is important from both scientific and technological viewpoints. Investigating glassy dynamics of polymer nanoparticles is useful for exploring the influence of geometry on the behavior of confined polymer, and thus, to gain insight into the generality of size-effects on material properties irrespective of the confining shape. Here, we use calorimetry to measure the glassy dynamics (e.g., glass transition temperature, fragility and structural relaxation) of polymers confined to the nanosphere geometry. We illustrate how nanoscale confinement can significantly alter the glassy dynamics of polymer nanoparticles. Our results suggest that interfaces are a key factor in modifying the glassy dynamics of confined polymer, irrespective of geometry.