

# Supporting Information

## **Fast Nanorod Diffusion through Entangled Polymer Melts**

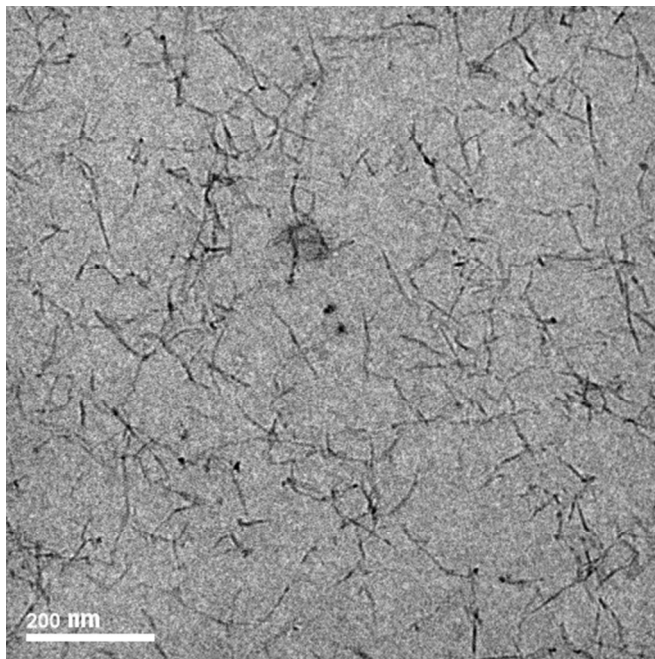
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**Figure S1.** Transmission electron micrograph depicting the stable dispersion of TiO<sub>2</sub> NRs in PS matrix ( $M = 650$  kDa,  $\phi_{\text{NR}} = 0.01$ ) after thermal annealing at  $190^{\circ}\text{C}$  for 6hrs.