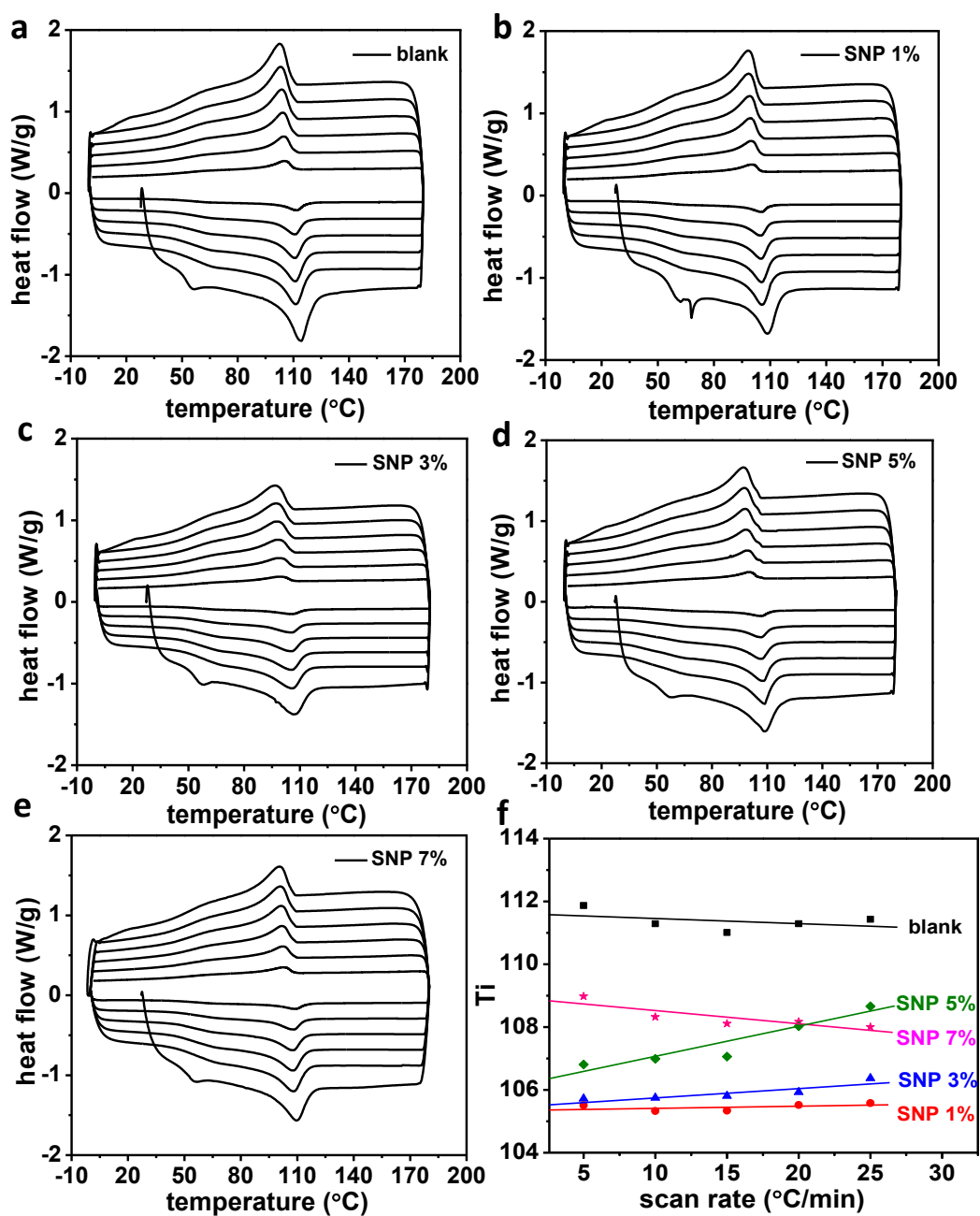
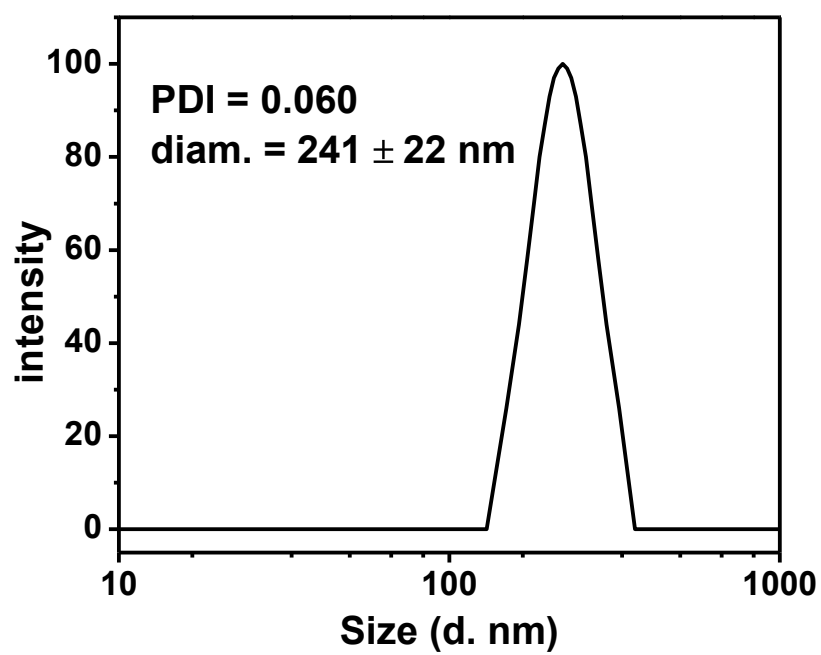


## Supplementary Information

**Figure S1.** DSC curves of samples with different SNP content (a) blank; (b) 1%; (c) 3%; (d) 5%; (e) 7%; (f) The linear fit of the  $T_i$  value.



**Figure S2.** DLS distribution of SiO<sub>2</sub> nanoparticles in aqueous dispersion.



**Figure S3.** SEM picture of SiO<sub>2</sub> nanoparticles at a magnification of 30,000.

