Supplementary Information

Solar-Thermal Energy harvesting Scheme: Enhanced heat capacity of molten HITEC salt mixed with Sn/SiO_x core-shell nanoparticles

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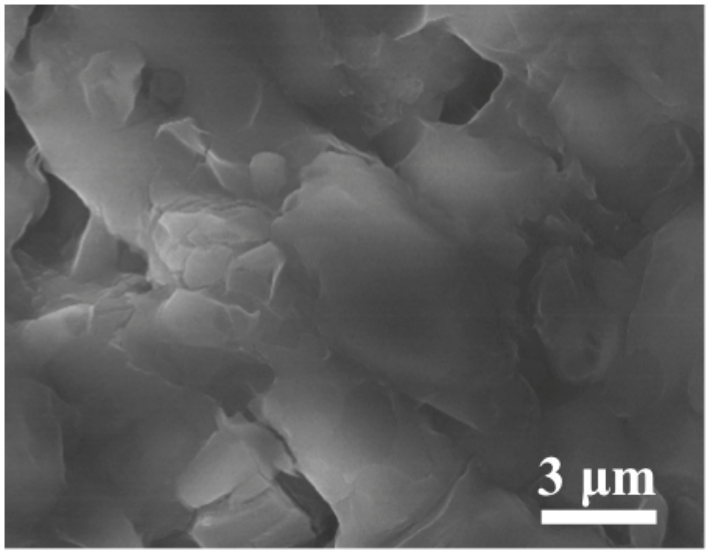

Figure S1 SEM images of the pure Hitec salt.

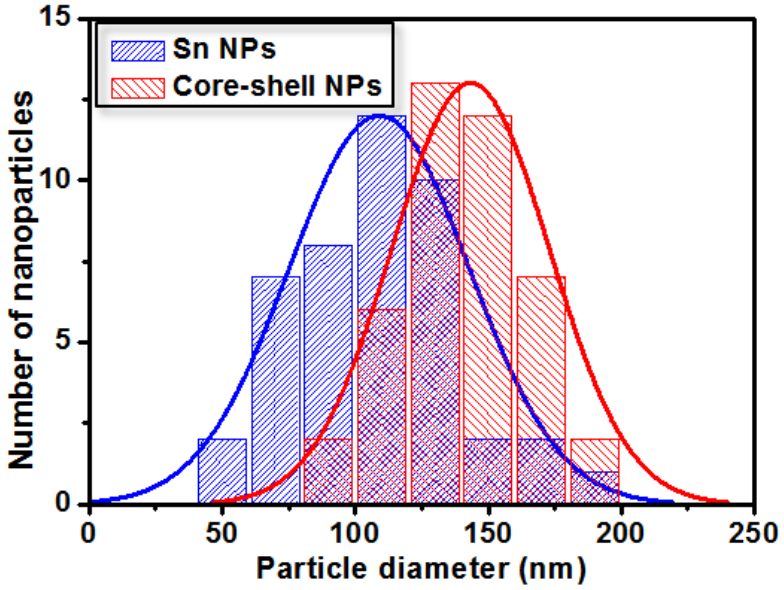

Figure S2 Diameter distribution of pure Sn and Sn/SiO_x core-shell NPs, respectively.

Table S1 Corresponding EDX analysis as noted in Figure 3(d).

Point	Sn	Si	O	Total (at%)
a	43.09	29.56	27.35	100
b	17.10	74.67	8.23	100

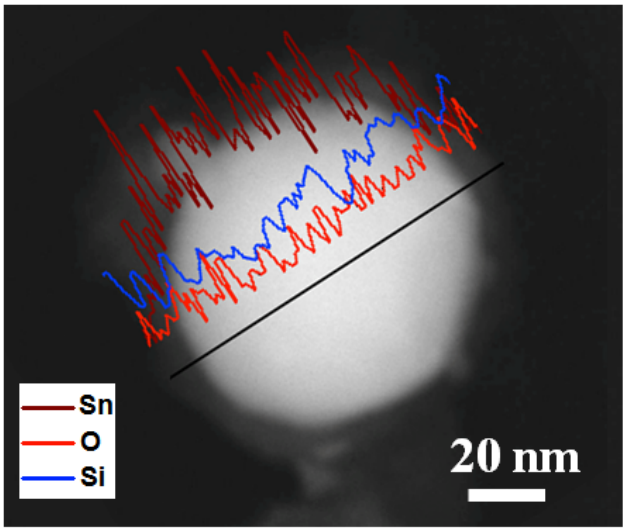

Figure S3 (a) HAADF image of Sn/SiO_x core-shell NPs

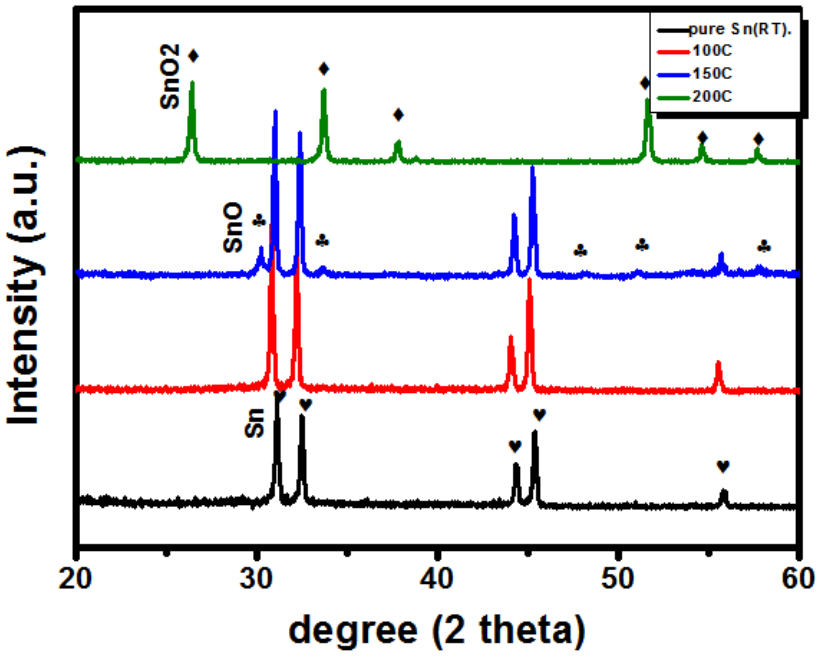

Figure S4 XRD spectra of pure Sn NPs annealed at different temperatures

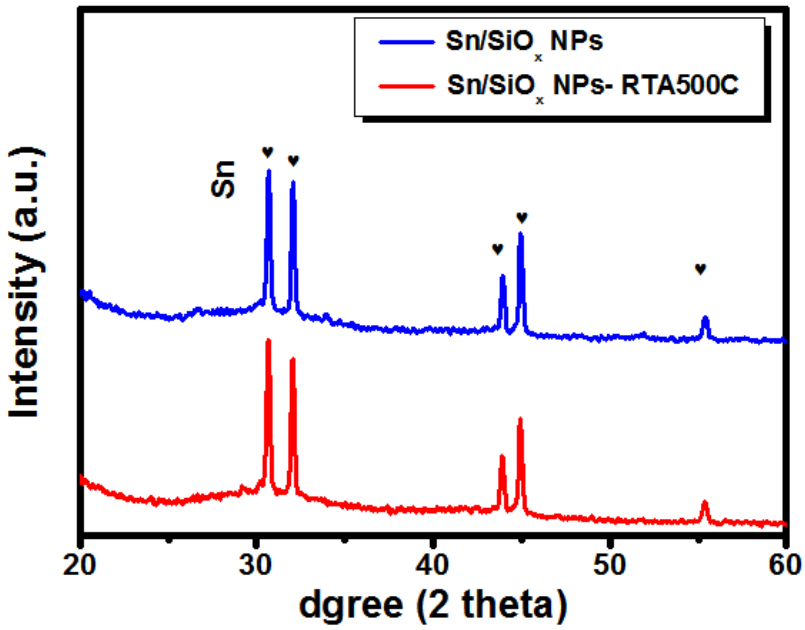

Figure S5 XRD spectra of Sn NPs with 10 nm-thick SiO_x shell layer before and after rapid thermal annealed at 500°C for five minutes.

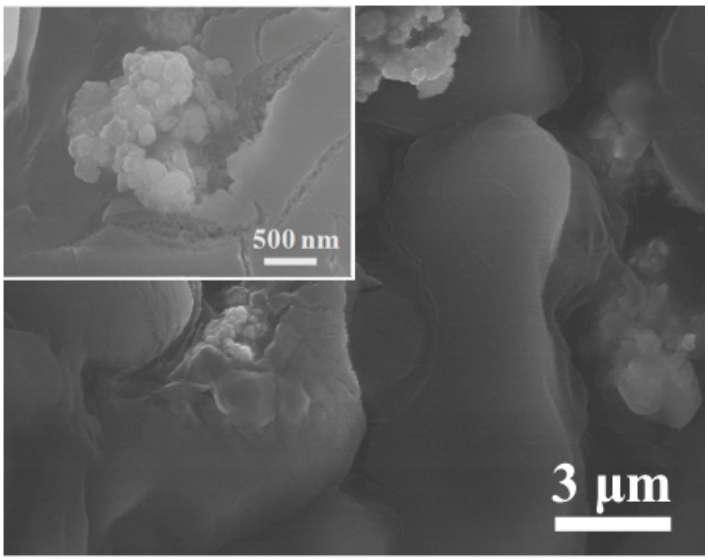

Figure S6 SEM images of the Hitec salt mixed with 5 % Sn/SiO_x core-shell NPs. Inset shows the corresponding high magnified SEM of Sn/SiO_x core-shell NPs dispersed in the Hitec salt matrix.