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## Surface–Initiated Polymerization on Unmodified Inorganic Semiconductor Nanoparticles

via Surfactant-Free Aerosol-Photopolymerization toward Core-Shell Nanohybrids with

**Tunable Shell Thickness** 

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## Supplementary Information



Figure S1. TEM images of P25  $TiO_2$  nanoparticles at different magnifications.



Figure S2. TEM images of PBuA coated  $TiO_2$  nanohybrids synthesized by aerosolphotopolymerization at (a) 40 °C, (b) 45 °C, (c) 55 °C, and (d) 60 °C.



Figure S3. TEM images of TiO<sub>2</sub>-PBuA core-shell synthesized by aerosol-photopolymerization at



Figure S4. Ti 2p XPS spectra for pure P25 nanoparticles.