Supporting Information

Nonaqueous Synthesis and Photoluminescence of ITO Nanoparticles

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Photograph: Suspensions of In$_2$O$_3$ and ITO NPs in hexane. from left to right, the samples are In$_2$O$_3$, ITO-A and ITO-B.
**Figure S1.** Typical spectra of TEM-EDS elemental analyses. (a) ITO-A (spectrum 2); (b) TO-B (spectrum 8).
Figure S2. Typical spectra of SEM-EDS elemental analyses. (a) ITO-A; (b) ITO-B.
**Figure S3.** Optical absorption spectra of In$_2$O$_3$ and ITO nanoparticle samples. Hexane was used as the solvent.
Figure S4. TEM images of (a) ITO-A and (b) ITO-B nanoparticles. TEM samples were prepared using a relatively low concentration of the particle suspensions in hexane.
**Figure S5.** Size histogram of (a) In$_2$O$_3$, (b) ITO-A, and (c) ITO-B NPs based on TEM observations.
Figure S6. The cubic bixbyite structure of ITO (ref. 48).