Electronic Supplementary Information

Controlled preparation of In$_2$O$_3$, InOOH, and In(OH)$_3$ via a one-pot aqueous solvothermal route

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Fig. S1 XRD patterns of the product synthesized under hydrothermal conditions.
The Raman spectra were recorded at ambient temperature on a Perkin-Elmer Spectrum 2000 R NIR FT-Raman spectrometer with a Nd/YAG laser and a InGaAs detector. For In$_2$O$_3$, Raman peaks at 202.7 and 299 cm$^{-1}$ are observed. These bands are due to In-O vibrations of InO$_6$ structural units of the body-centered cubic (bcc) In$_2$O$_3$ structure. In the Raman spectra of InOOH and In(OH)$_3$, peaks at 178.5, 264.7, 305 and 207, 302.4 can be seen, respectively, in agreement with the literature. The Raman spectrum reveals the high crystalline quality of the products.
Fig. S3 HRTEM and SAED patterns of the as-synthesized products: (A1, A2, A3), In$_2$O$_3$; (B1, B2), InOOH; (C) In(OH)$_3$.

Notes and references
