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Electronic Supplementary Information

Controlled preparation of In_2O_3 , InOOH , and $\text{In}(\text{OH})_3$ via a one-pot aqueous solvothermal route

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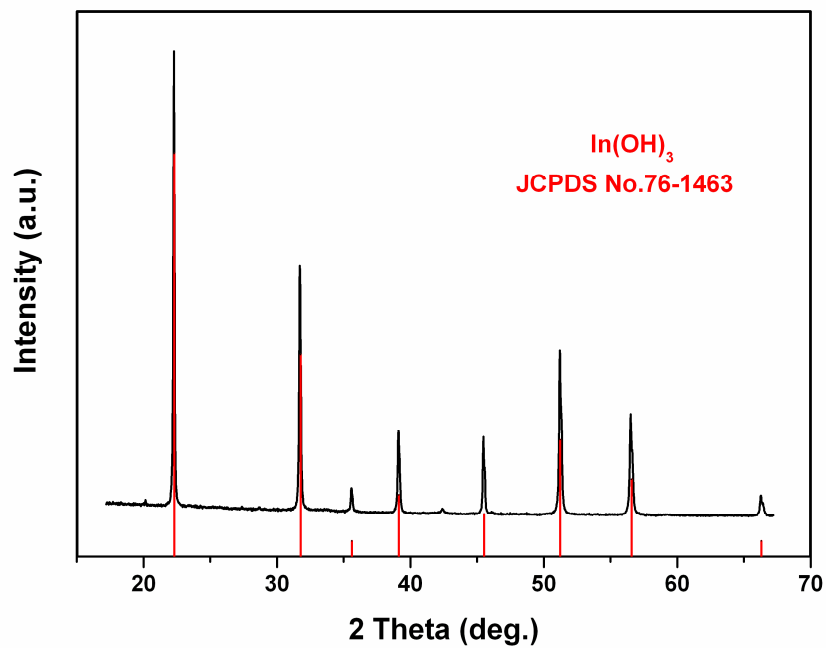


Fig. S1 XRD patterns of the product synthesized under hydrothermal conditions.

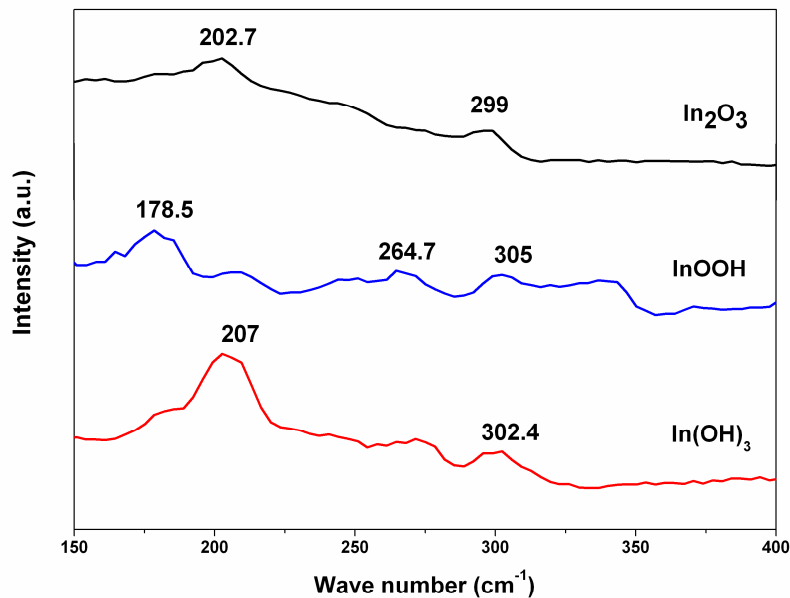


Fig. S2 Raman spectra of In₂O₃, InOOH, and In(OH)₃.

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 In₂O₃, Raman peaks at 202.7 and 299 cm⁻¹ are observed. These bands are due to In-O vibrations of InO₆ structural units of the body-centered cubic (bcc) In₂O₃ structure.¹ 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.² The Raman spectrum reveals the high crystalline quality of the products.

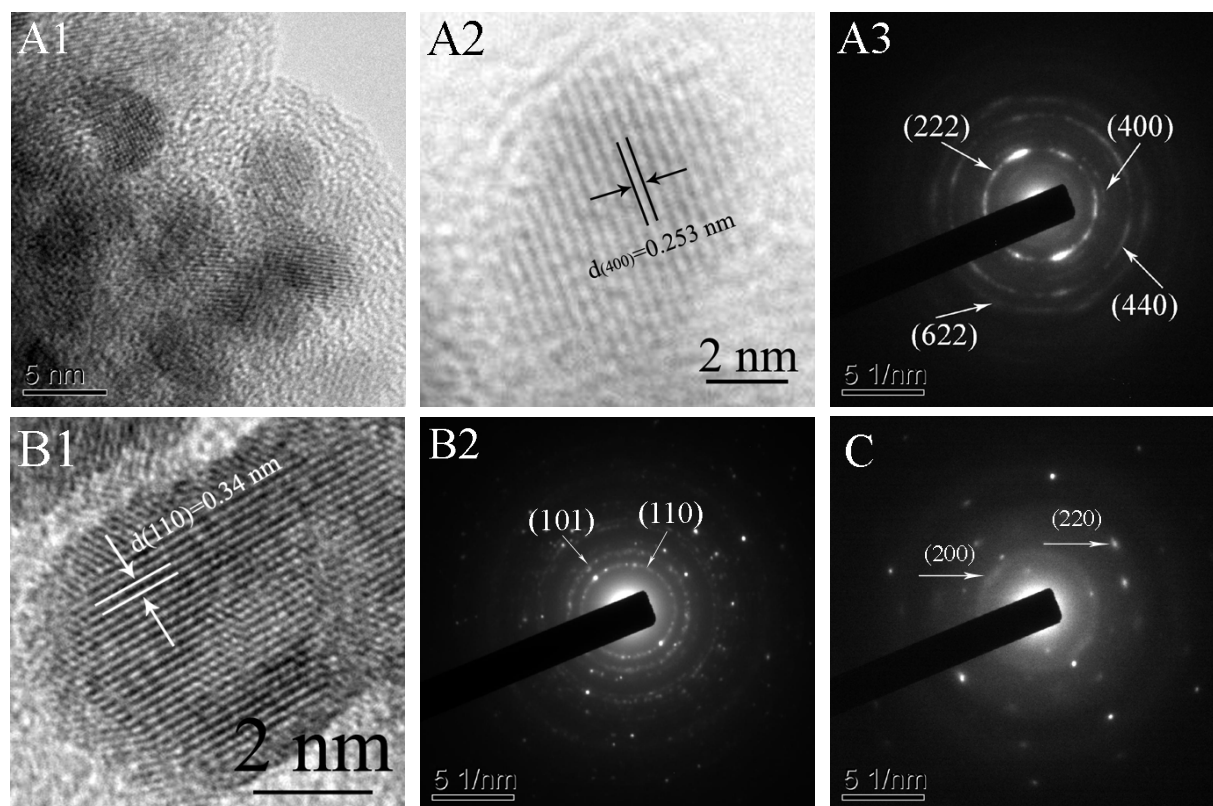


Fig. S3 HRTEM and SAED patterns of the as-synthesized products: (A1, A2, A3), In_2O_3 ; (B1, B2), InOOH ; (C) $\text{In}(\text{OH})_3$.

Notes and references

- 1 W. B. White, and V. G. Keramidas, *Spectrochim. Acta A*, 1972, **28**, 501.
- 2 X. Y. Xue, and M. Kanzaki, *J. Phys. Chem. B*, 2007, **111**, 13156.