## **Electronic Supplementary Information**

## Homoleptic gallium(III) and indium(III) aminoalkoxides as precursors for

## sol-gel routes to metal oxide nanomaterials

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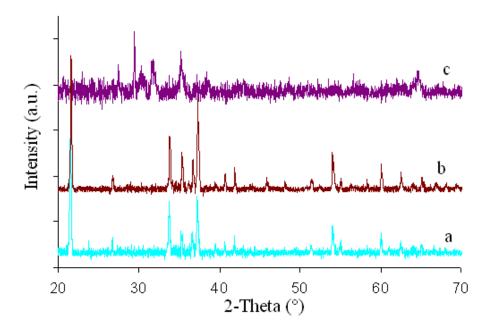


Fig. S1: XRD patterns of powders obtained after hydrolysis of **3**: (a) as-prepared, (b) asprepared in presence of NR<sub>4</sub>Br, and (c) calcined at 500  $^{\circ}$ C.

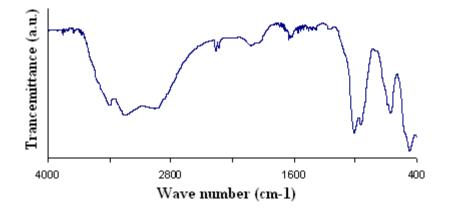


Fig. S2: FT-IR spectrum of as-prepared powder obtained after hydrolysis of Ga(OPr<sup>i</sup>)<sub>3</sub>

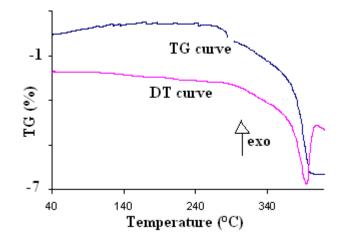


Fig S3. TG-DTA curves of as-prepared powder obtained after hydrolysis of Ga(OPr<sup>i</sup>)<sub>3</sub>

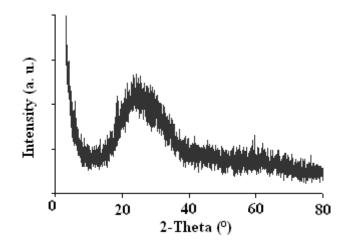


Fig S4. XRD of Ga<sub>2</sub>O<sub>3</sub> film on glass obtained from **1** and calcined at 500 °C for 4 hrs.

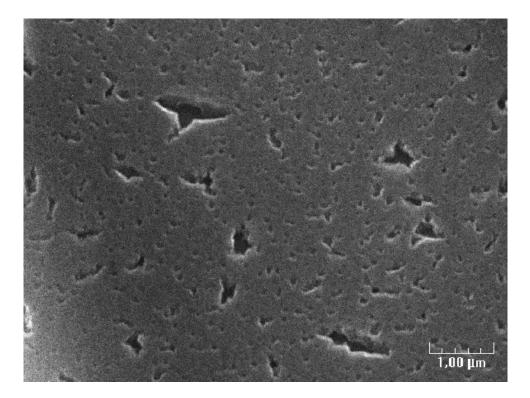


Fig S5: SEM images of  $Ga_2O_3$  films obtained from 1 on glass slide.

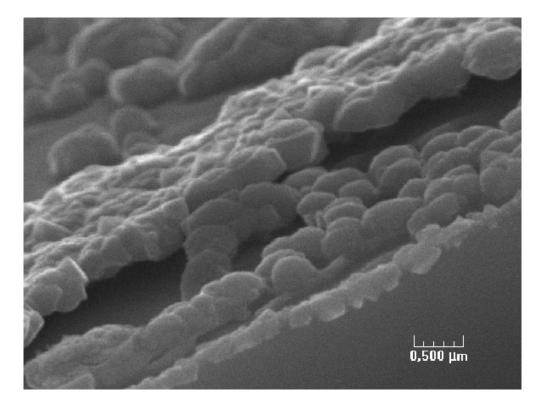


Fig S6: SEM images of  $In_2O_3$  film obtained from 2 on Si wafer.