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Suplementary Information

Transparent and conducting ITO thin films by spin coating of an aqueous precursor solution

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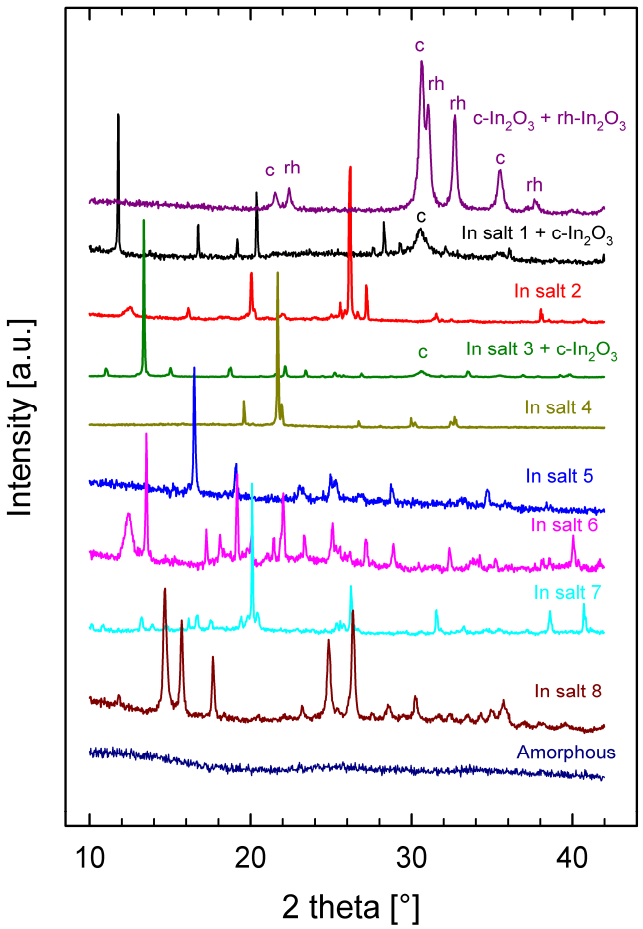

Fig. S1 XRD of as-evaporated gels and powders calcinated at 400 °C after syntheses with different complexing agents. All the experiments were carried out with an initial cation concentration of 0.5 M. The diffraction lines from cubic In_2O_3 (space group $Ia\bar{3}$) and rhombohedral In_2O_3 (space group $R\bar{3}c$) are marked with *c* and *rh* respectively.

A series of experiments were carried out where the organic components in the recipe were alternated, all of which with an initial cation concentration of 0.5 M. The results from these experiments are summarized in Table 2. In most of the cases either precipitation of In salts or In_2O_3 occurred during drying or before a gel was formed. It was confirmed by XRD that none of the salts were nitrates or acetates, and that the same salt was observed in syntheses both with and without tin. It is therefore believed that the salts are organometallic salts of indium and the respective organic additive, however, no further characterization was carried out. The salts are labelled In salt X according to their appearance in Table 2.