Electronic Supplementary Material (ESI) for RSC Advances.

Electrochemical Preparation of Tin-Titania Nanocomposite Arrays

- Electronic Supplementary Information -

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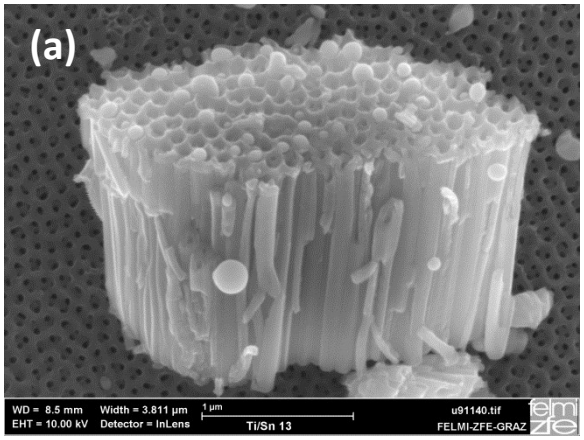

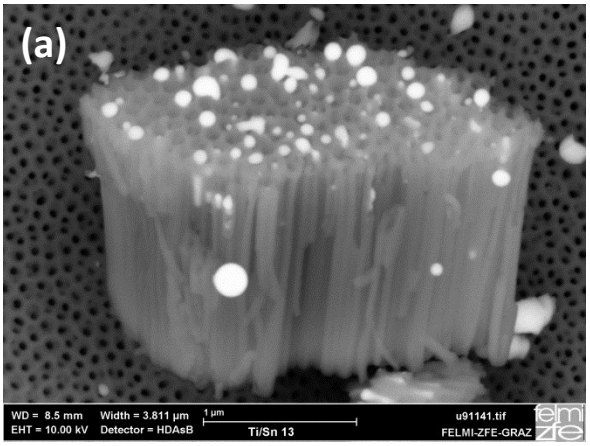

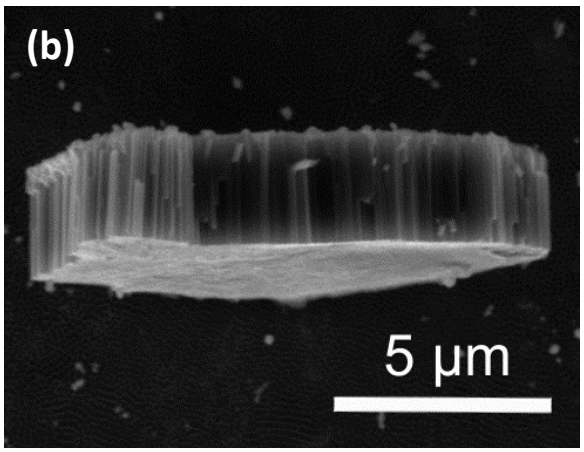

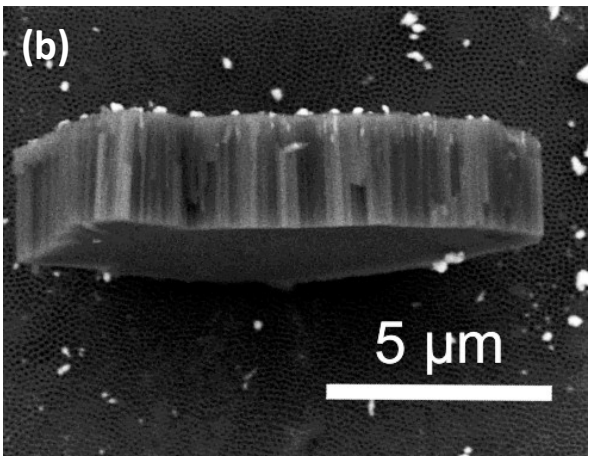

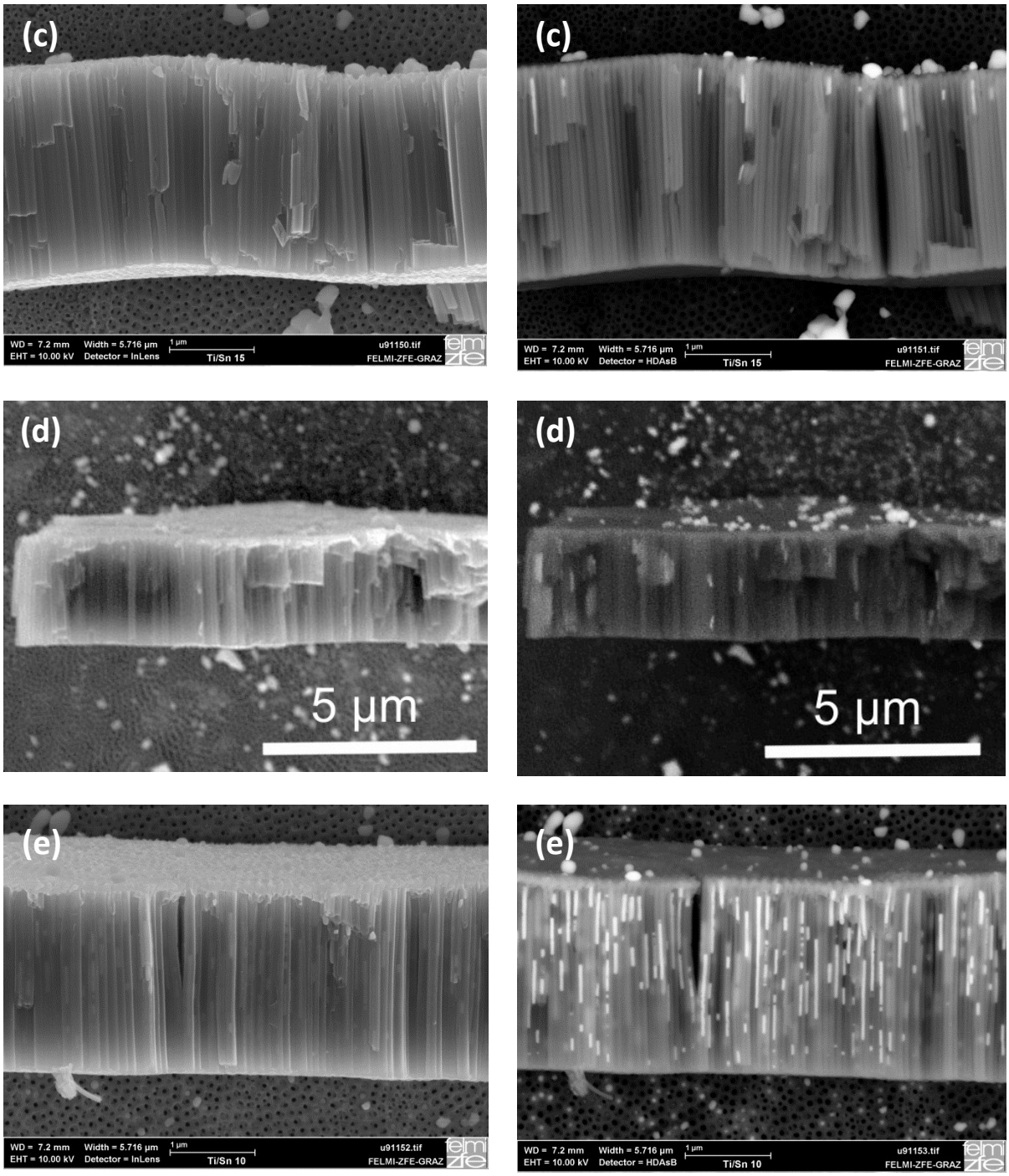

Figure S1. SEM pictures of Sn-TiO_2 nanocomposites after 2 (a), 5 (b), 10 (c), 20 (d) and 90 (e) electrodeposition cycles. The nucleation and growth of the Sn deposit is taking place from the open top of the nanotubes. The microcraphs on the *left* panel were acquired in **SE** (Secondary Electrons) mode while those on the *right* panel were acquired in **BSE** (Back Scattered Electrons) mode at much better chemical elements contrast.

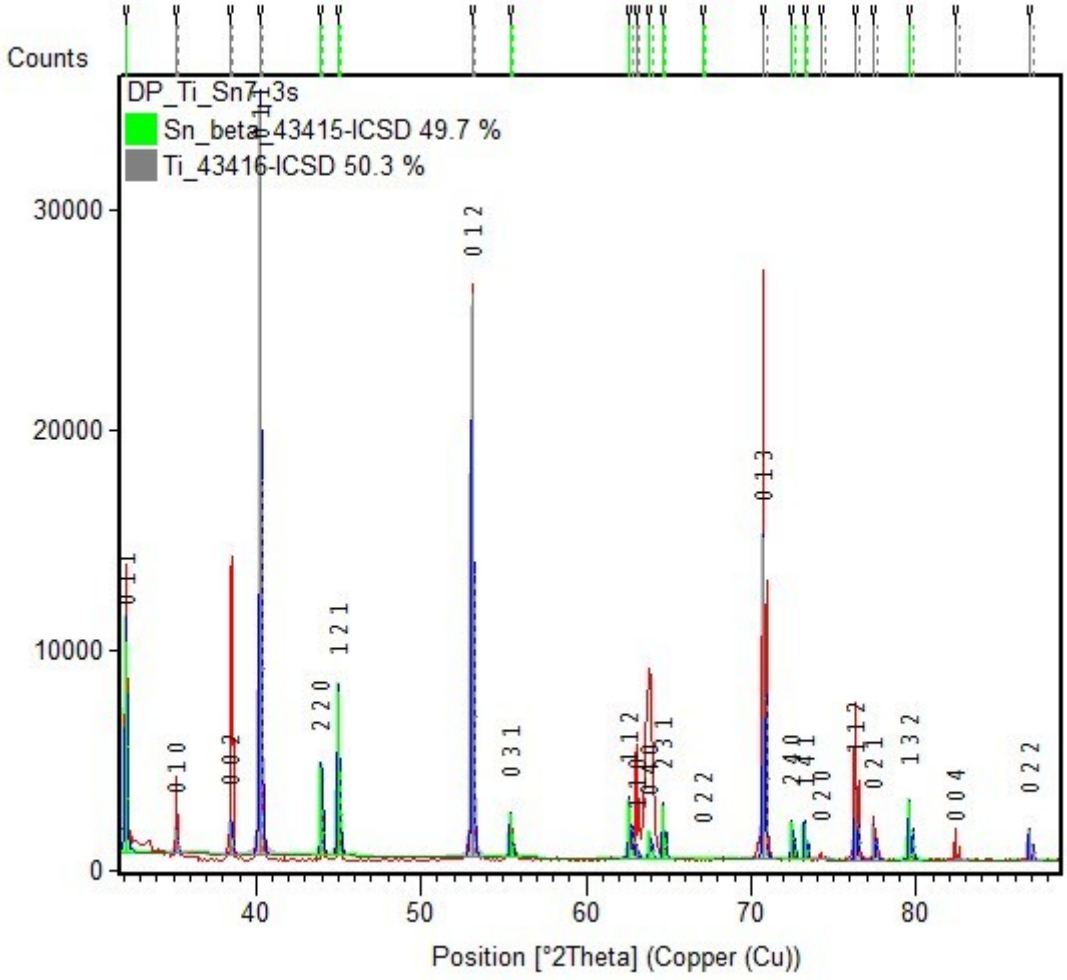

Figure S2. X-ray diffraction pattern of a TiO_2-Sn nanocomposite. Only the reflections of Sn and metallic Ti substrate are visible, the TiO_2 nanotubes are amorphous and do not present any crystalline reflections. Thus, we can conclude that the chemically different phase seen by SEM inside the TiO_2 nanotubes consists of β-Sn (Space group I 41 /a m d, ICSD No. 43415).