Electronic Supplementary Material (ESI) for CrystEngComm.

Electronic Supplementary Information

Truncated tetragonal bipyramidal anatase nanocrystals formed without use of capping agents from the supercritical drying of a TiO_2 sol

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Figure & Captions

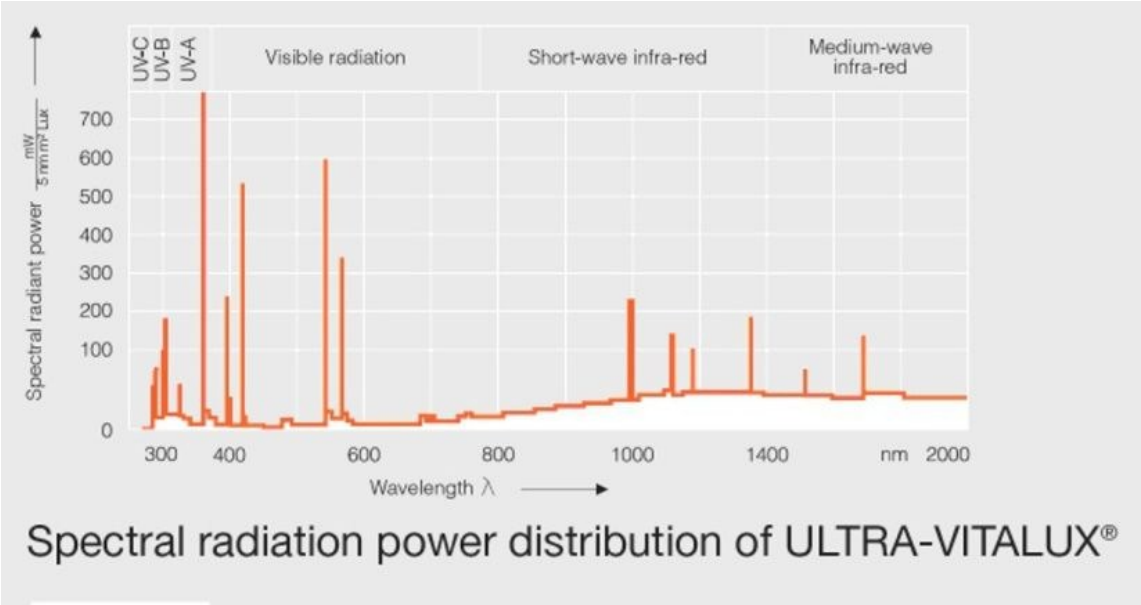

Fig. S1 − Emission spectrum of the solar lamp used in the PCA tests (Osram Ultra-Vitalux, 300 W).

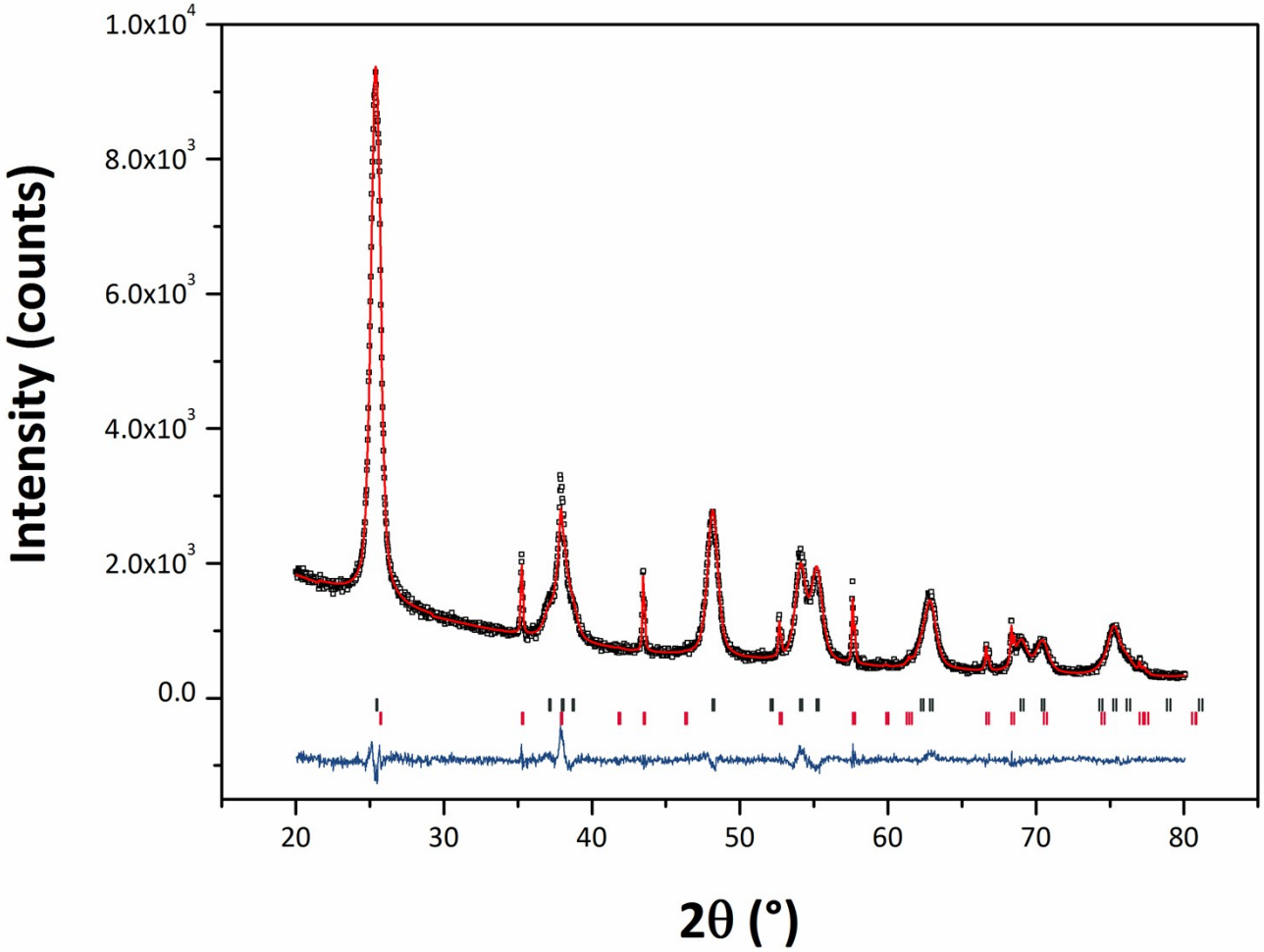

Fig. S2 – Graphic output of the Rietveld refinement of the sample **Ti-IPA**. The black open squares represent the observed pattern, the red line represent the calculated pattern, and the difference curve between observed and calculated profiles is plotted below. The position of reflections is indicated by the small vertical bars (black: anatase; red: the internal standard used, NIST SRM 676a).

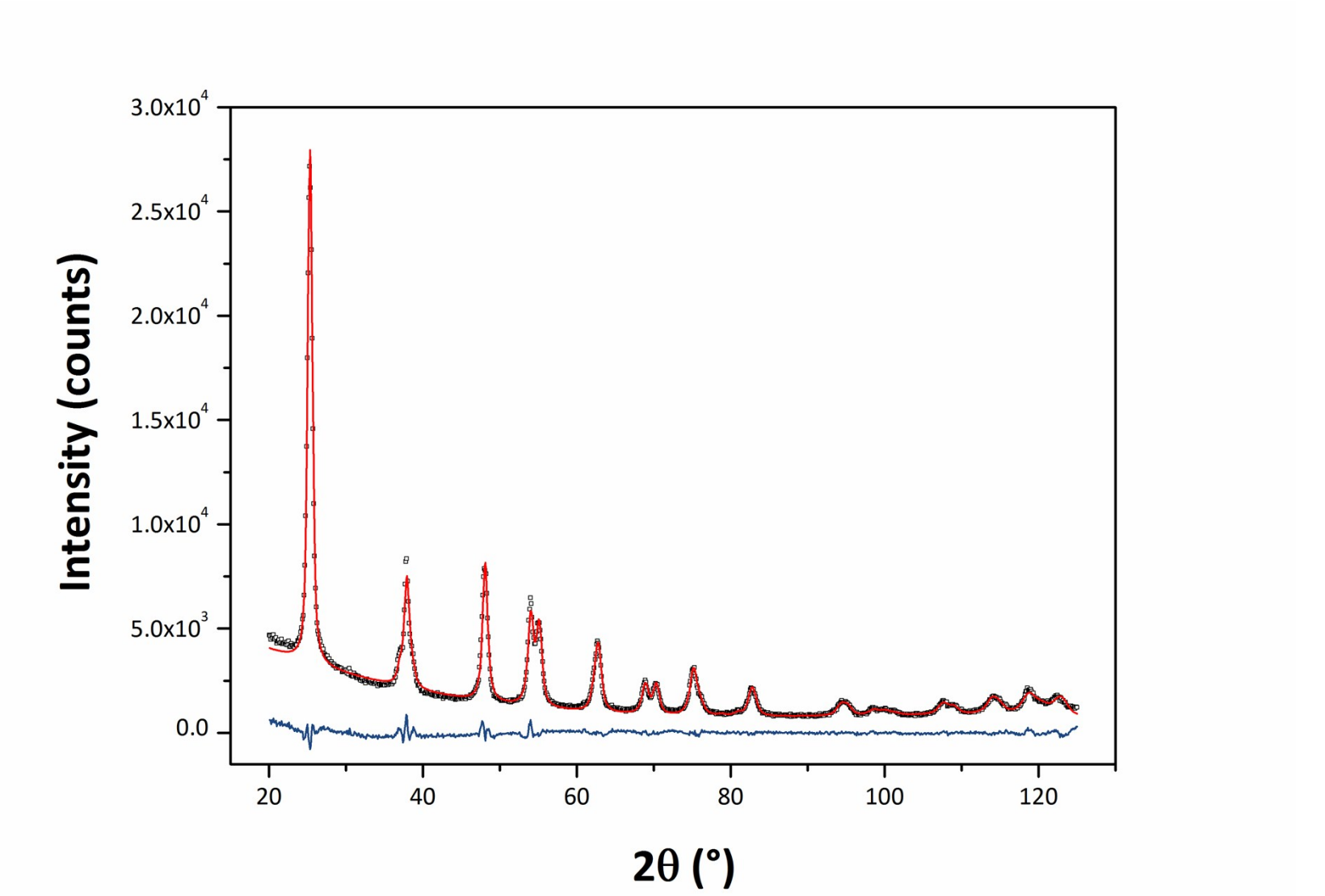

Fig. S3 – Graphic output of the WPPM modelling (sample **Ti-EtOH**). The black open squares represent the observed data, the red continuous line the calculated data. The blue continuous line in the bottom shows the difference curve between observed and calculated profile.

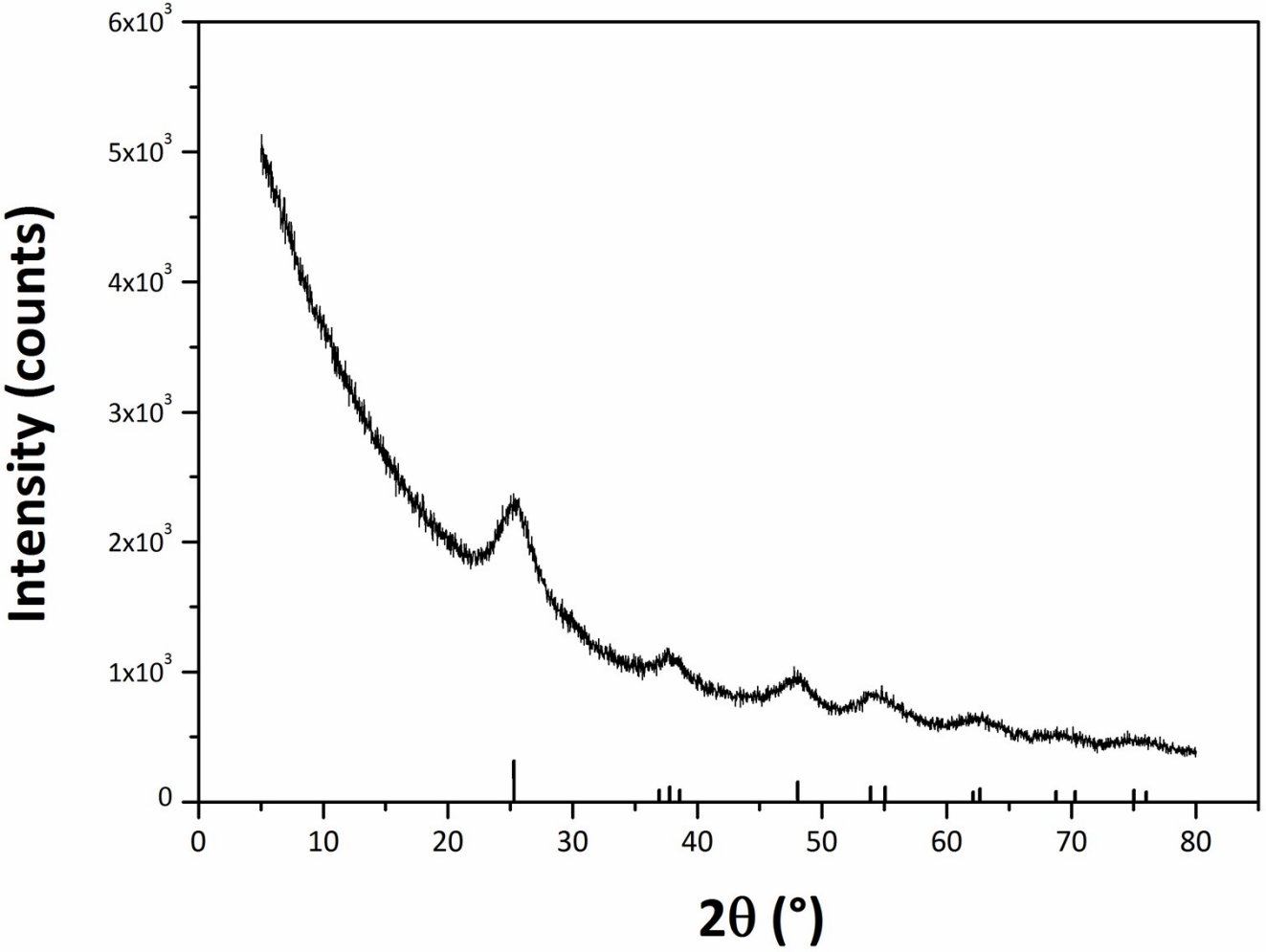

Fig. S4 – XRD pattern of the Ti sol dried to glassy gel on the rotary evaporator at 60 °C. The vertical black bars represent anatase reflections, from ICDD powder diffraction card # 21-1272.

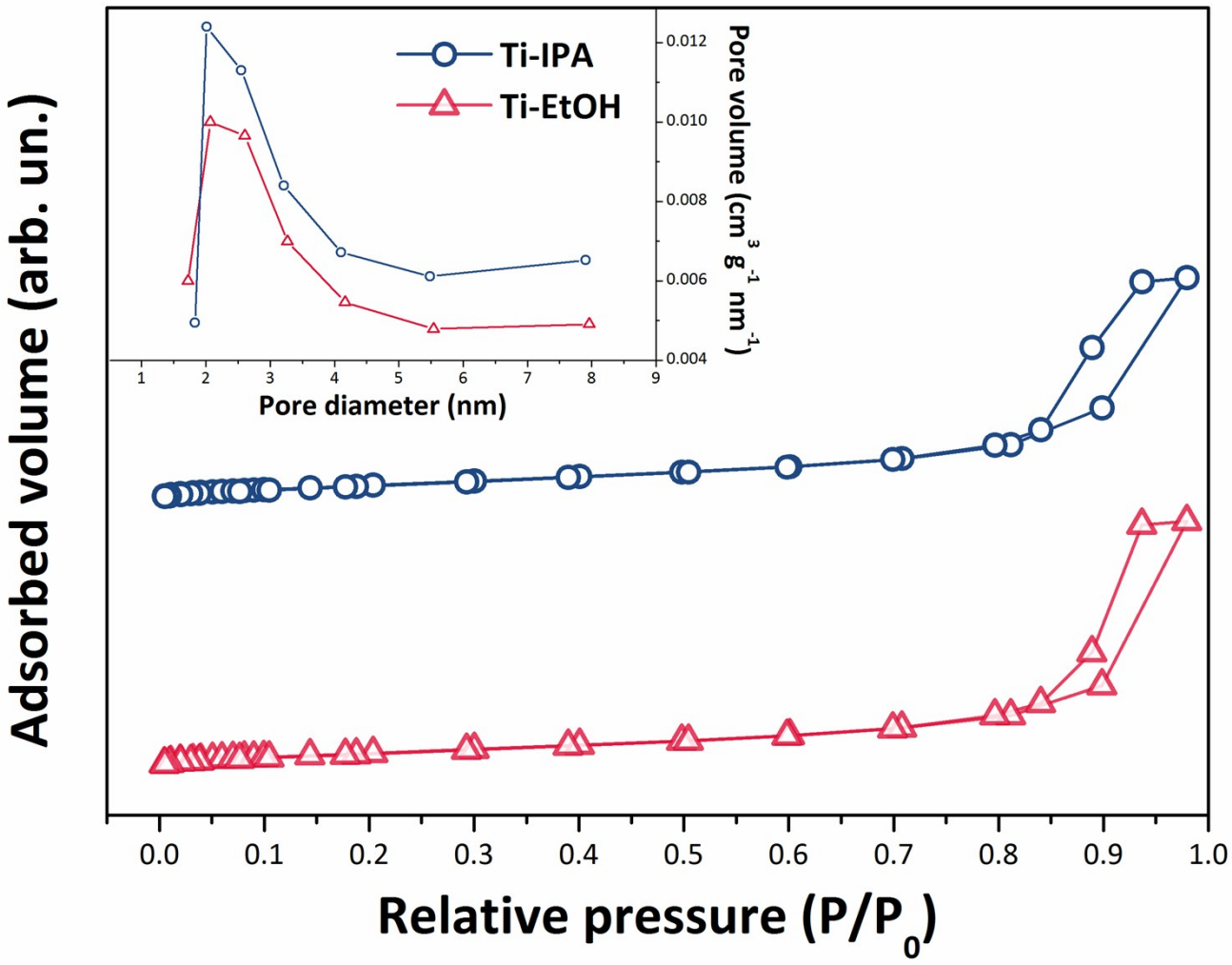

Fig. S5 – Sorption isotherms of samples **Ti-IPA** and **Ti-EtOH**, both of type IV. In the inset is shown the pore-size distribution.

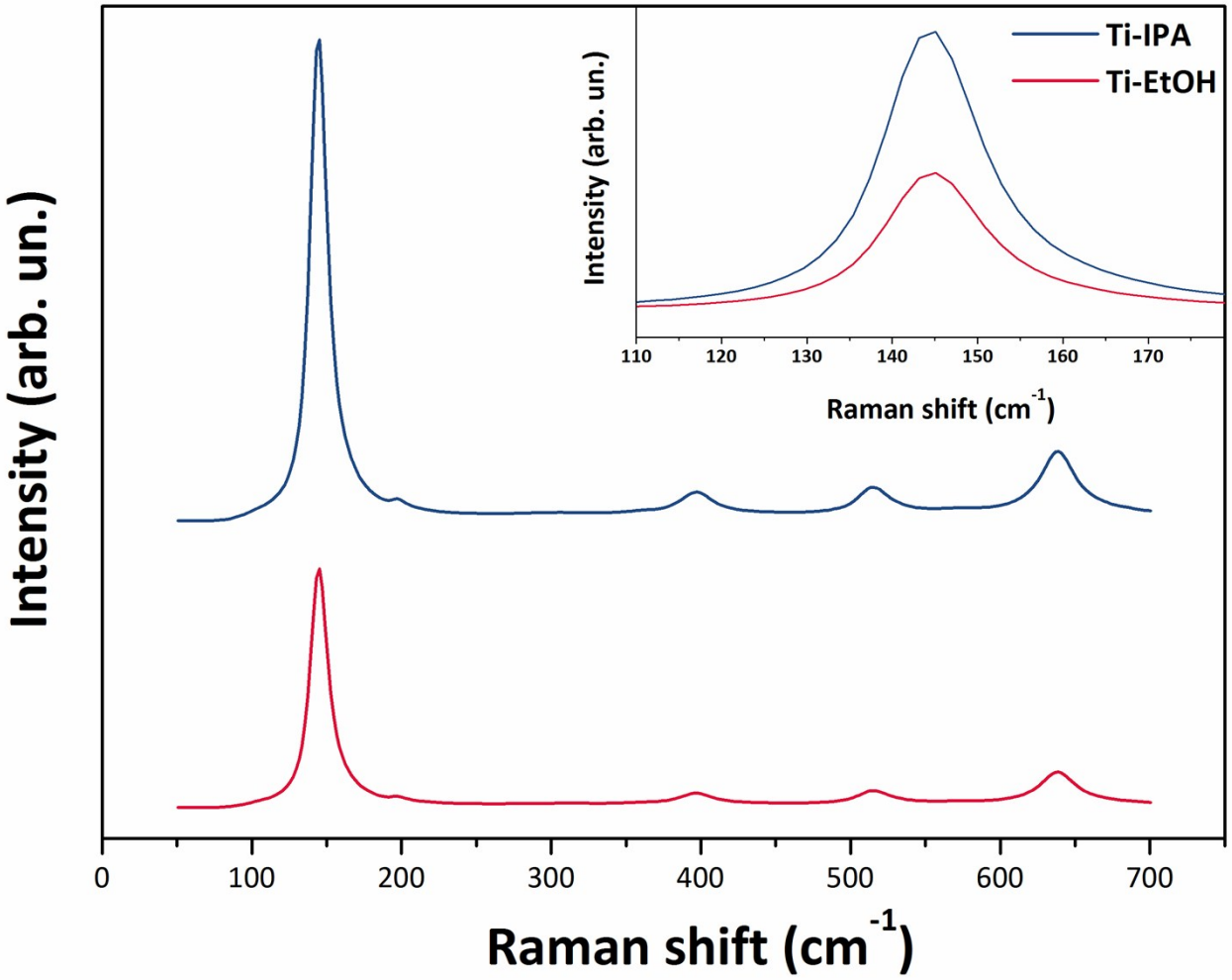

Fig. S6 – Raman spectra of the samples. In the inset is shown a magnification between 110-180 cm^{-1}, to highlight the Raman E_g active mode of anatase at 144 cm^{-1}.

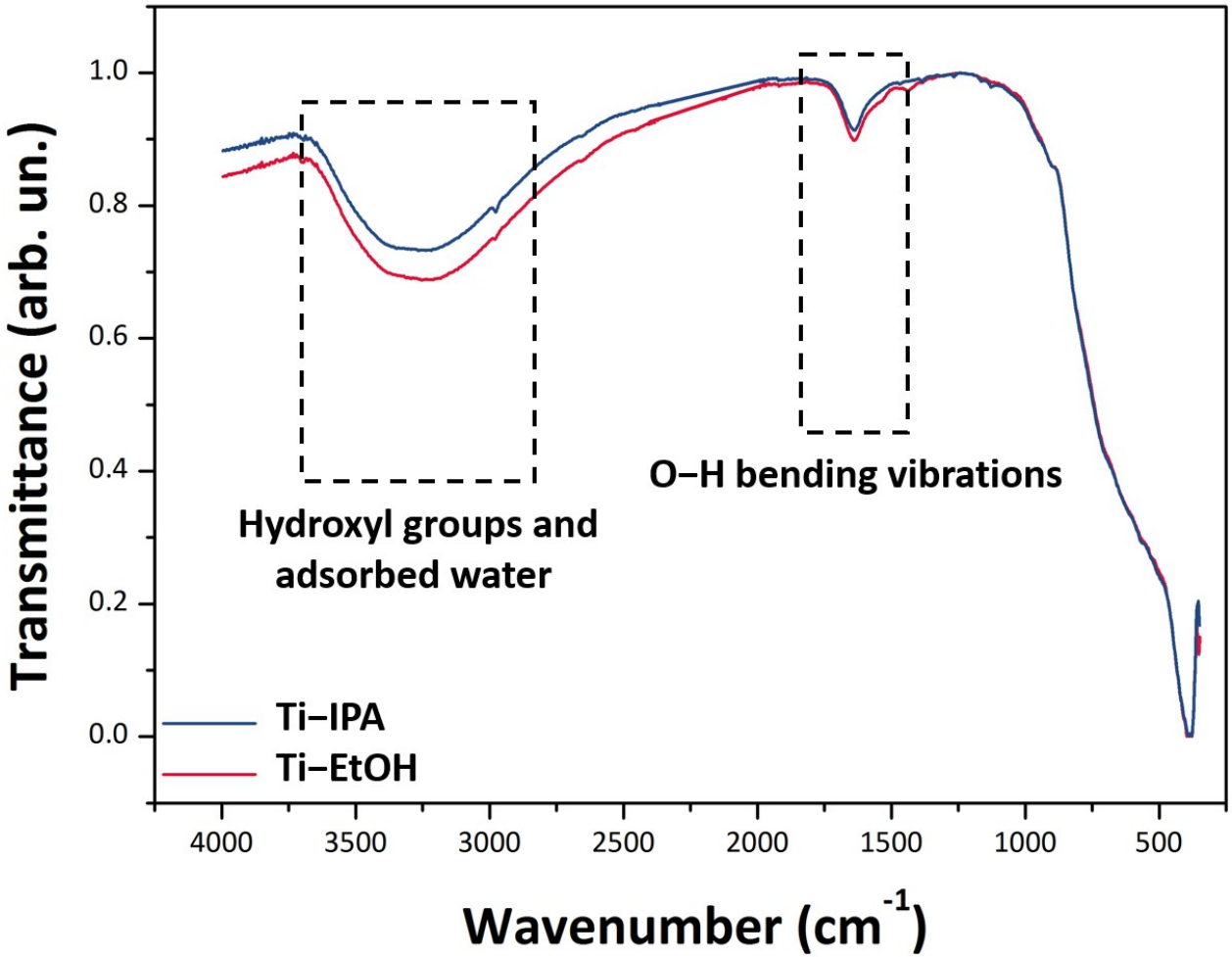

Fig. S7– FT-IR spectra of synthesised anatase NPs. The dashed areas are to highlight the regions with hydroxyl groups, adsorbed water, and O–H bending vibrations.