Supplementary Information for manuscript RA-ART-11-2014-014247.R1

Jeremy H. Yune, et.al., "A versatile binder-free TiO_2 paste for dye-sensitized solar cells"

The XRD pattern of synthesised hydrothermal TiO_2 is presented in Figure 1S. This data shows the formation of highly crystalline TiO_2 with anatase being a predominate phase. A small rutile peak was also seen in the pattern with calculated amount of this phase <2%. Anatase crystallite size calculated from XRD data is around 21 nm.

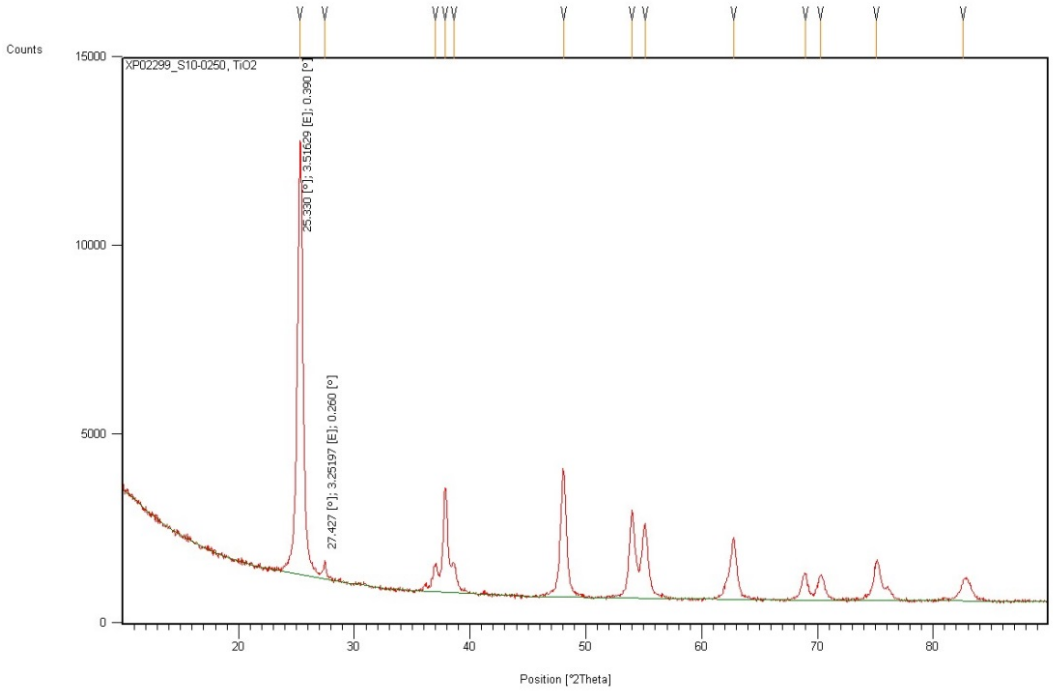

Figure 1S. XRD pattern of hydrothermal TiO_2.

Furthermore, supplementary information was also obtained from the TEM analysis. According to TEM data (Figure 2S), the hydrothermal TiO_2 sample appears to be entirely anatase. Crystallites are measured in the range from 20 to 70 nm in size and are highly crystalline. It is understood that the TEM did not show a rutile phase as it looks only at a very small amount of material while XRD investigates the bulk sample.

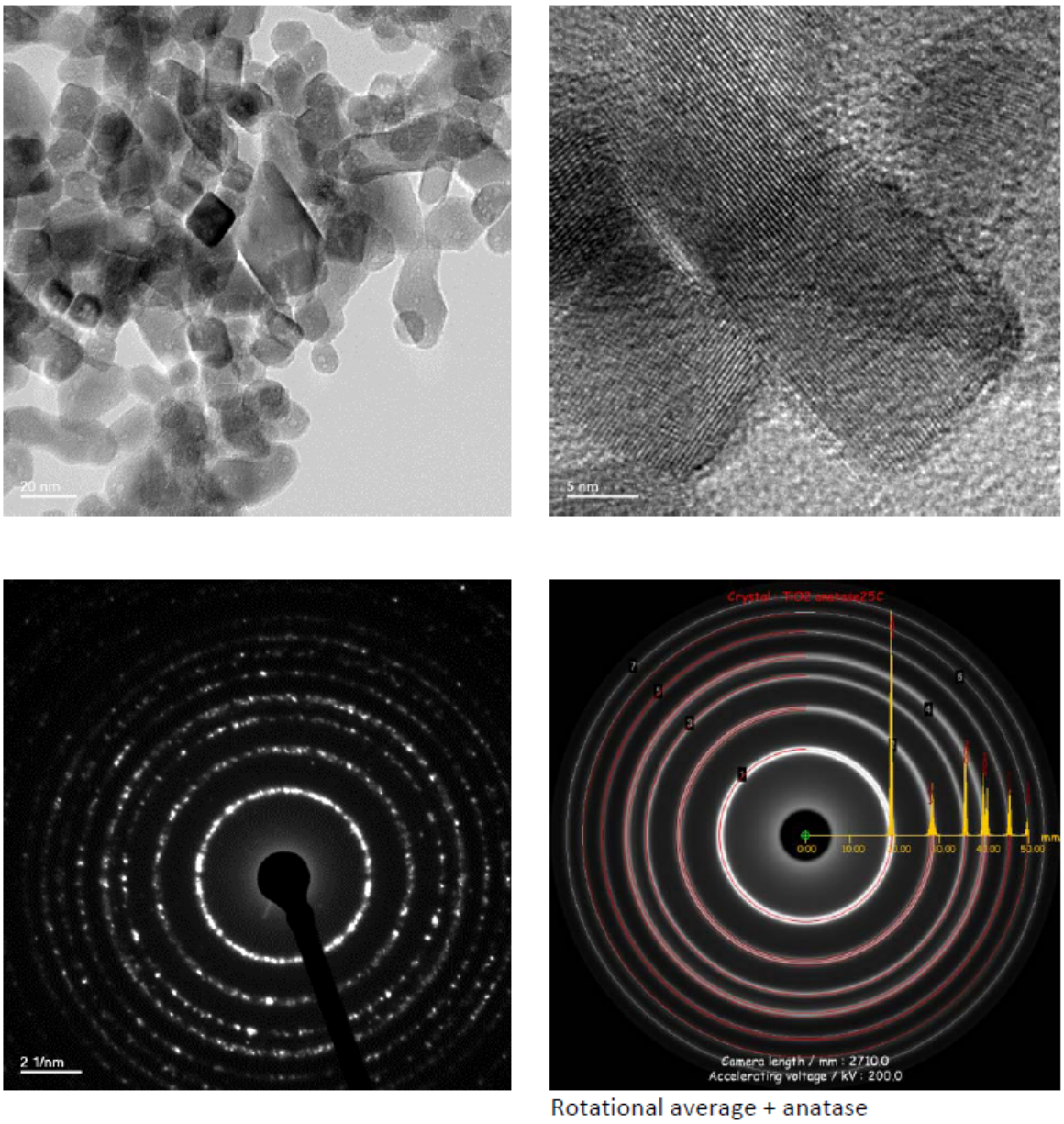

Figure 2S. TEM data for as-prepared hydrothermal TiO_2.