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Supporting Information



Figure S1. X-Ray Diffraction pattern of the SnO₂ nanopowder employed in this work.



Figure S2. SEM micrograph of the SnO₂ nanopowders employed in this work, magnification x 20000.



Figure S3. Plots of the Kubelka-Munk function at (i) 4000 cm⁻¹ and (ii) 2000 cm⁻¹ from the spectra in fig. 4.



Figure S4. The spectrum collected at 150 °C in fig. 4 subtracted from those taken up to 450 °C.



Figure S5. The spectrum collected at 450 °C in fig. 4 subtracted from those taken up to 600 °C.



Figure S6. Plot of the natural log of the absorbance at 2000 cm⁻¹ in fig. 4 vs 1/temperature.



Figure S7. Plot of the fraction of ionised donor states n/N_d vs temperature, see text for details.



Figure S8 FTIR spectra (8 cm⁻¹ resolution, 100 co-added and averaged scans, 2 minutes per scanset) as a function of temperature during the heating of 20 mg SnO₂+80 mg KBr powder. The reference spectrum was collected from pure KBr powder at 25°C in dry N₂. Other spectra collected at the temperatures shown. The atmosphere was $80\%N_2+20\%O_2$ passed through D₂O.



Figure S9 FTIR spectra (8 cm⁻¹ resolution, 100 co-added and averaged scans, 2 minutes per scanset) collected during the experiment depicted in fig. S7. The spectrum collected at 150 °C was subtracted from the spectra taken from 200 °C to 450 °C.