**Electronic Supporting Information (ESI):**

**Experimental Section**

XPS was performed in an ion pumped UHV chamber equipped with a VG nine channel CLAM4 electron energy analyser (base pressure $5 \times 10^{-10}$ torr) 250 Watt Al X-ray (1486.6 eV) excitation was used. The analyser was operated at constant pass energy of 100 eV for the wide scans and 20 eV for the detailed scans. Data was obtained using VGX900-W operating system. Peak areas were measured after background subtraction following methods of Shirley.¹

TEM micrographs have been taken on a JEOL 2010 instrument, which is equipped with an Oxford Instruments LZ5 windowless energy dispersive X-ray spectrometer for EDS.

¹ D A Shirley, Phys. Rev. B, 5, 1972, 4709