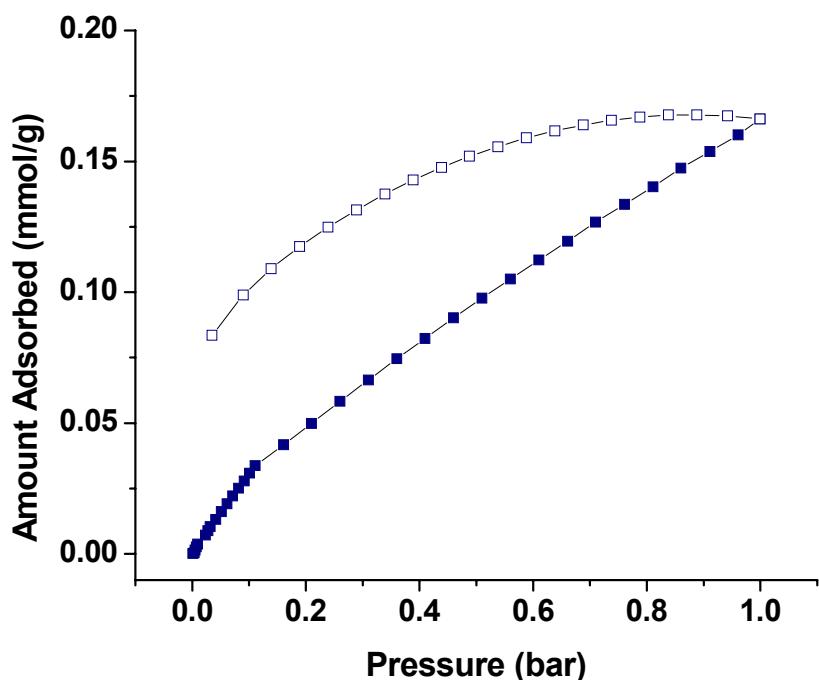


## Supporting Information

Adsorption measurements were performed using an Autosorb 1-MP from Quantachrome Instruments. Research grade CO<sub>2</sub> obtained from Airgas Inc. (Radnor, PA) were used for all adsorption measurements. Samples were soaked in absolute ethanol for 3 days replacing solvent every 24 hours. The sample was then filtered and loaded into a sample tube of known weight and activated at room temperature and dynamic vacuum for 12 hours then heated to 80°C to completely remove guest solvents. After activation, the sample and tube re-weighed to obtain the precise mass. The CO<sub>2</sub> adsorption isotherm was held at 273 K in an ice-water bath. The void volume of the system was determined by using He gas. Surface area, pore volume and pore diameter determined using the slit-pore NLDFT model for CO<sub>2</sub> at 273 K on carbon from AS1Win version 2.01 by Quantachrome Instruments.



Figure## Carbon dioxide isotherm of the U(IV)/Co(II) compound at 273K

Nitrogen isotherms performed at 77 K showed no uptake of gas. The CO<sub>2</sub> isotherm exhibits hysteresis suggesting constricted pores.

## Powder Diffraction

