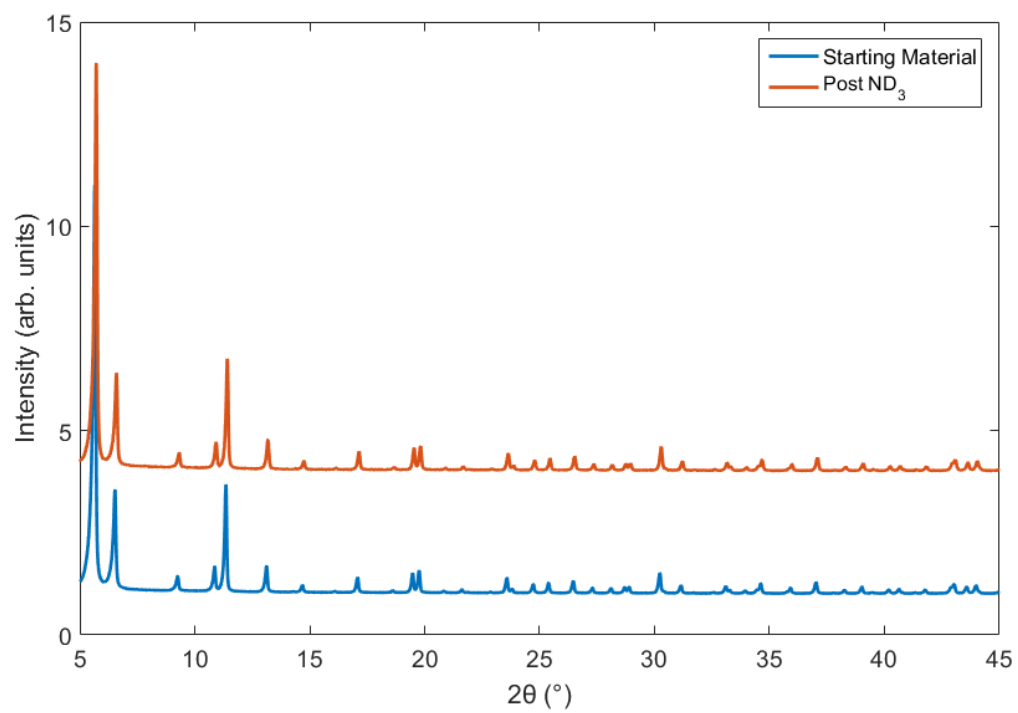


SUPPLEMENTARY INFORMATION FOR

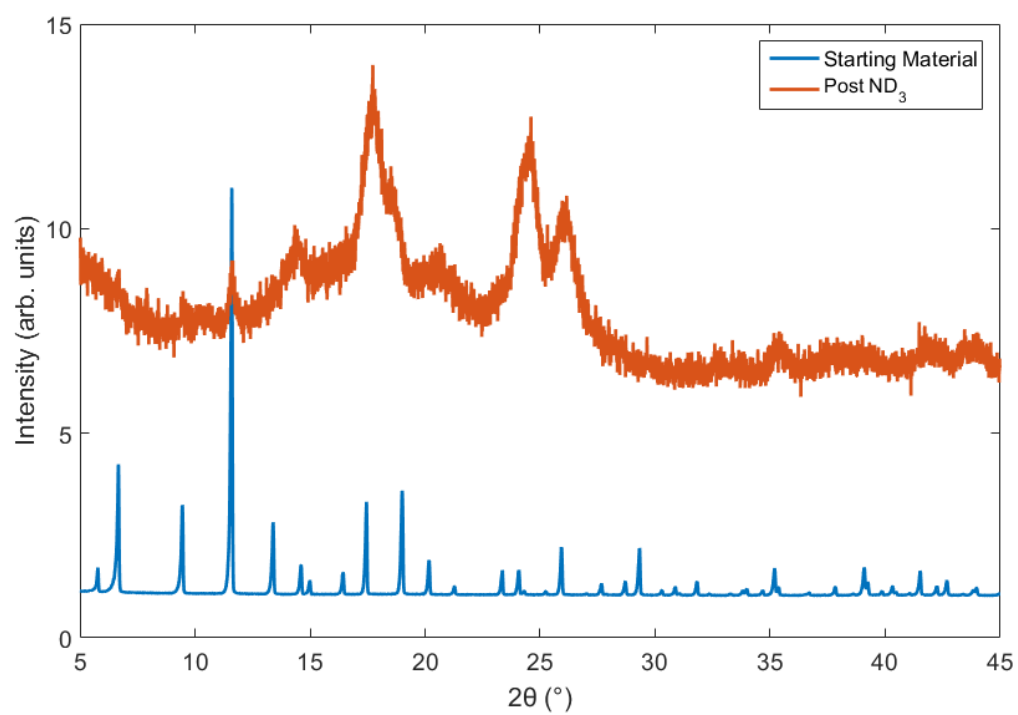
**Simultaneous Neutron Powder Diffraction and Microwave Dielectric Studies of Ammonia
Absorption in Metal-Organic Framework Systems**

Michael Barter, Jon Hartley, François Joseph-Yazigi, Ross J. Marshall, Ross S. Forgan, Adrian Porch
and Martin Owen Jones

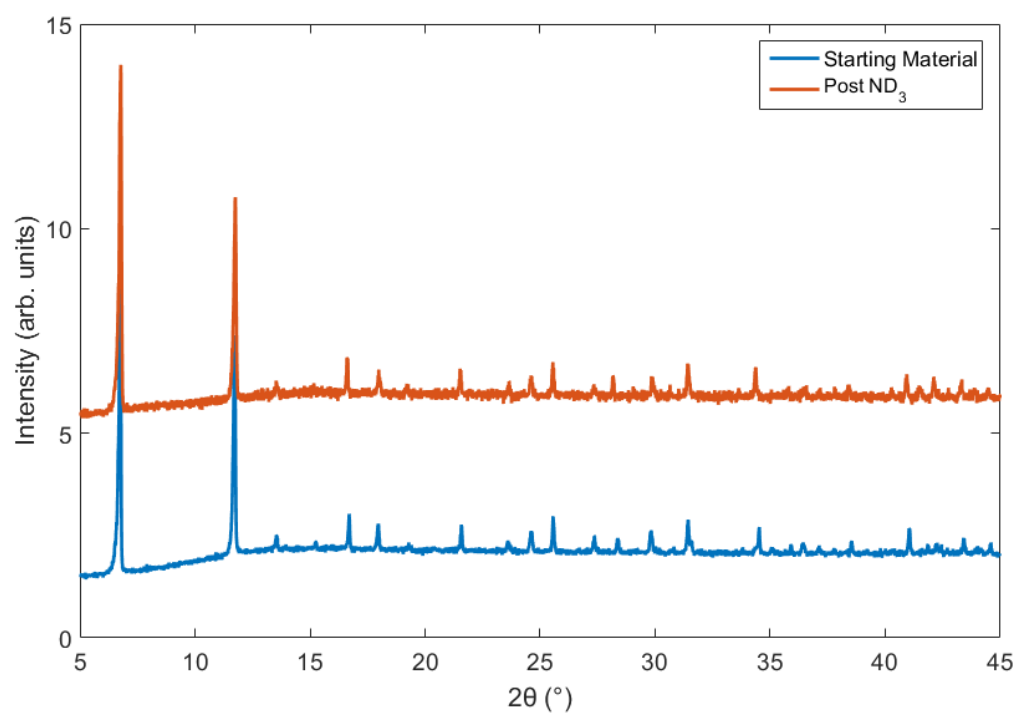
Powder X-Ray Diffraction (PXRD): PXRD measurements were carried out at 298 K using a PANalytical X'Pert PRO diffractometer (λ (CuK α) = 1.4505 Å) on a mounted bracket sample stage. Data were collected over the range 5–45 °.



Sup. Figure 1 - Powder X-ray diffraction (PXRD) patterns for UiO-67 as the starting material and after ND₃ absorption experiments



Sup. Figure 2 - Powder X-ray diffraction (PXRD) patterns for HKUST-1 as the starting material and after ND_3 absorption experiments



Sup. Figure 3 - Powder X-ray diffraction (PXRD) patterns for CPO-27-Co as the starting material and after ND_3 absorption experiments