Electronic Supplementary Information for Dalton Transactions


**SUPPLEMENTARY INFORMATION**

# Metal-Organophosphine and Metal-Organophosphonium Frameworks with Layered Honeycomb-like Structures

*Simon M. Humphrey*[†,‡] Phoebe K. Allan,[†] Shaunt E. Oungoulian,[†] Matthew S. Ironside[†] and Erica R. Wise[†]*

University Chemical Laboratory, University of Cambridge, Lensfield Road, Cambridge CB2 1EW, U.K. and St John's College, Cambridge CB2 1TP, U.K.

Email: smh49@cam.ac.uk.

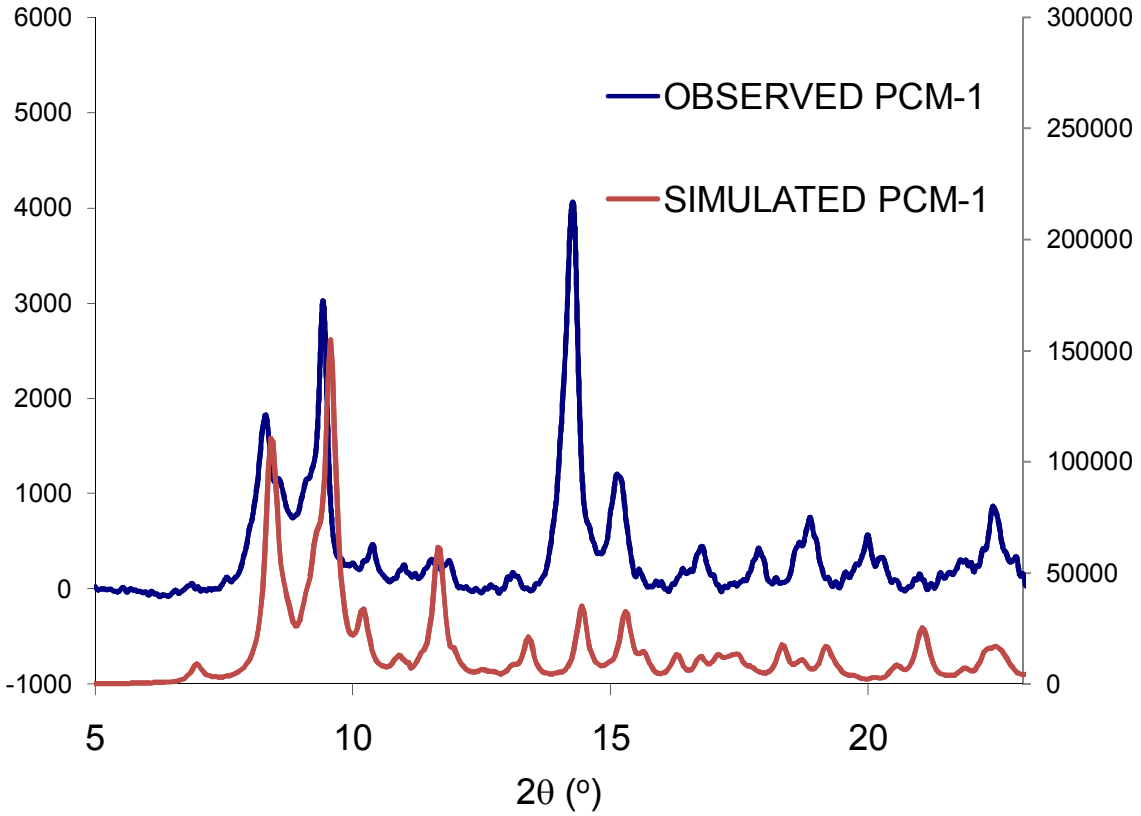


**Figure S1.** XRPD for PCM-1; for the dehydrated powder diffraction pattern of PCM-1 (above) the *a*-axis length was found to double ($a$ = 88.38 Å) as a result of lowering of cell symmetry from orthorhombic to monoclinic. This can be rationalized based on the structure of PCM-1, wherein the pair of unique residues in the asymmetric unit become equivalent upon loss of DMF solvent.

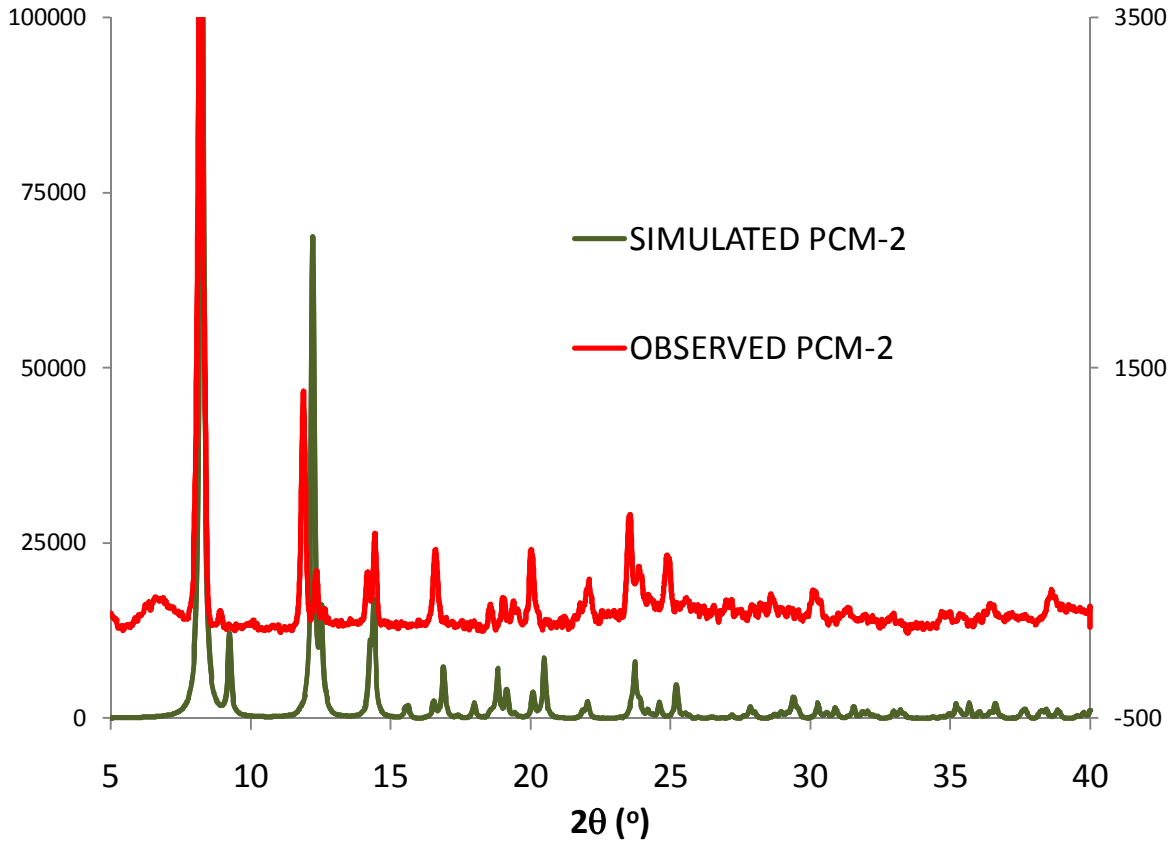


**Figure S2.** XRPD for PCM-2

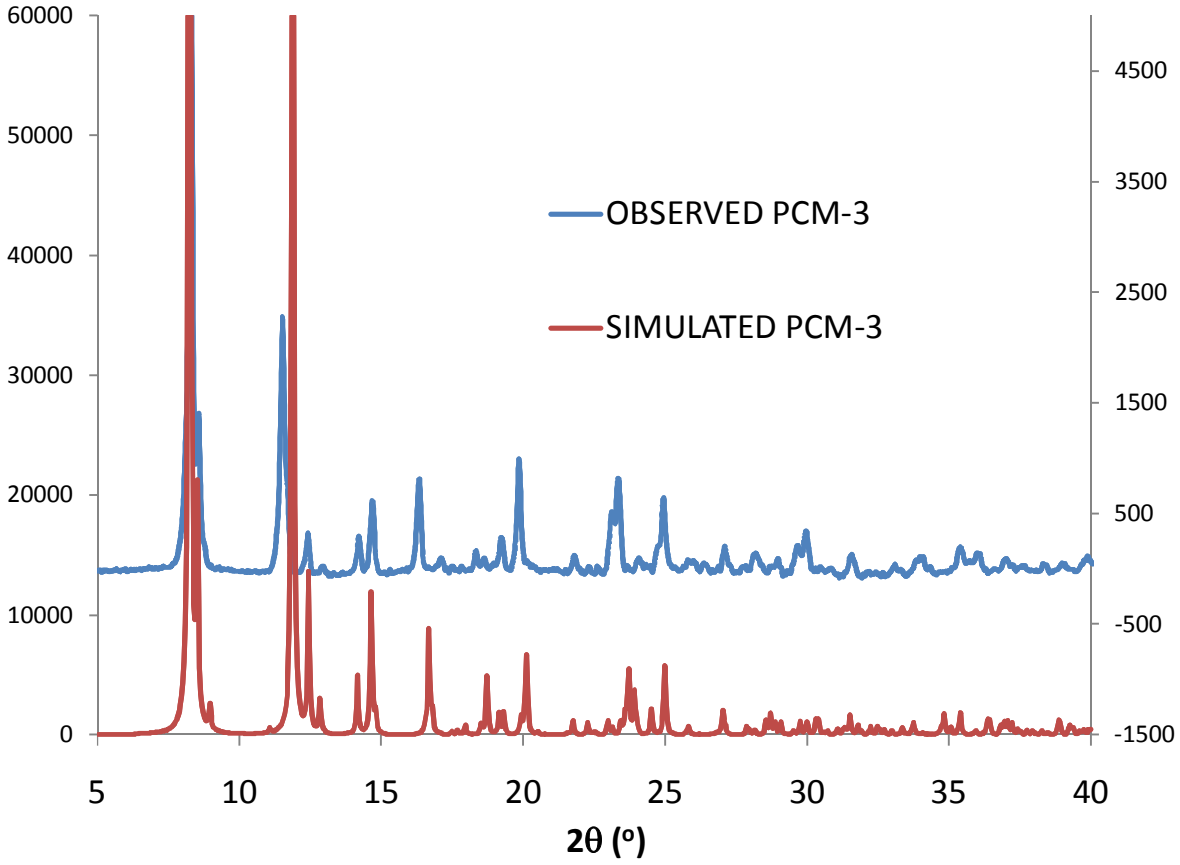


**Figure S3.** XRPD for PCM-3

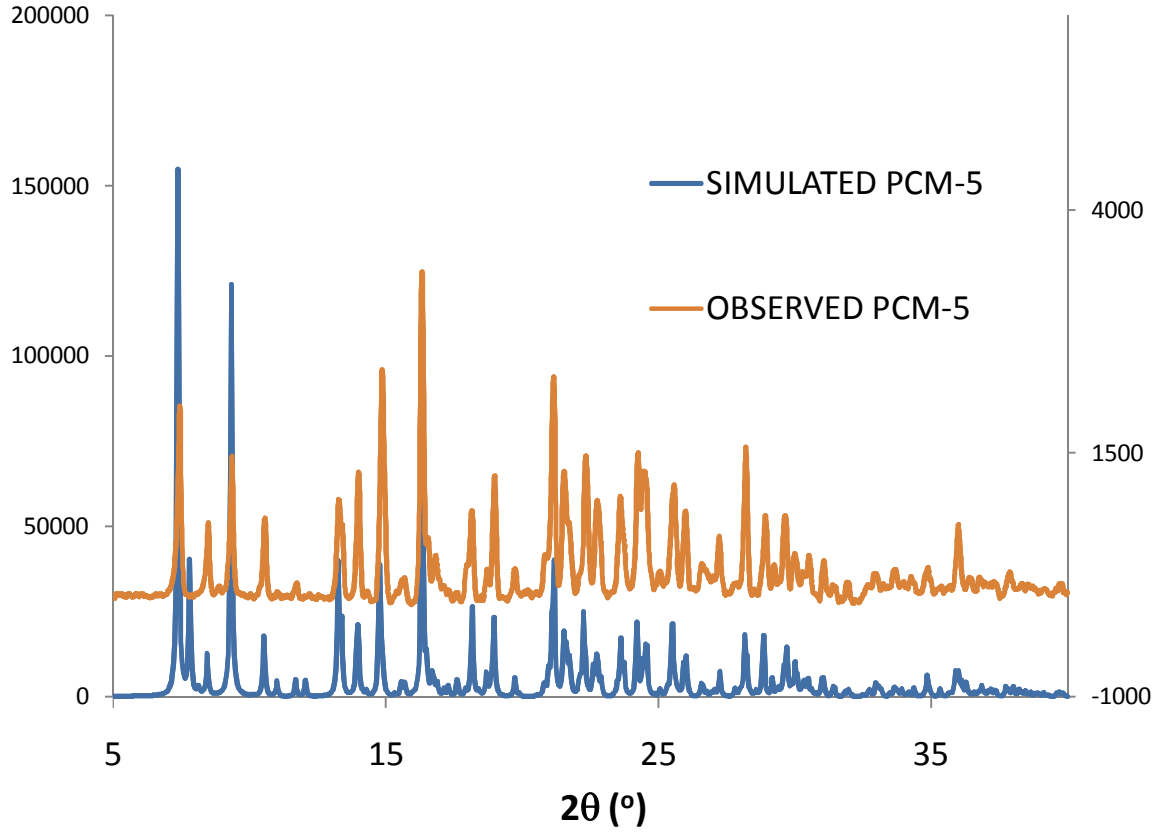


**Figure S4.** XRPD for PCM-5