

Dr Ian Shannon

Lecturer in Inorganic Chemistry
Director of UG Laboratories

Contact details

Telephone **+44 (0)121 414 8026** (tel: +44 121 414 8026)

Email i.shannon@bham.ac.uk (mailto:i.shannon@bham.ac.uk)

School of Chemistry



About

Research Group Web Pages (<http://chemweb.bham.ac.uk/~shannoni/index.htm>)

Qualifications

- 2000-Present Lecturer at University of Birmingham.
- 1997-1999 British Petroleum/Royal Society of Edinburgh Research Fellow and Lecturer at University of St. Andrews
- 1995-1996 Postdoctoral Research Assistant with Prof. Sir John Meurig Thomas FRS, at the Royal Institution of Great Britain, London.
- 1991-1994 PhD at University of St. Andrews, with Prof. K.D.M. Harris. Final year of this research was carried out at University College London.
- 1987-1991 BSc First Class (Hons) in Chemistry and Mathematics at University of St. Andrews

Research

Research Interests

The work carried out within our research group is centred on the synthesis and characterisation of new solid materials with particular focus on structural and catalytic studies of supported catalysts. A major aspect of this work is at the interface between homogeneous and heterogeneous catalysis, and involves the heterogenisation of inorganic and organometallic catalysts through the encapsulation (supporting) of catalytic species within a range of solid host matrices including hydrotalcite clays, and mesoporous and microporous materials. Of particular interest is the supporting of chiral species for asymmetric catalysis. Other aspects of our research involve more fundamental studies into the synthesis and structure of new porous frameworks (zeotypes, mesoporous solids) and organic-inorganic hybrid materials (pillared phosphonates, functionalised organosiloxane polymers), and the development of hydrotalcite-like materials as precursors to high surface area metal and metal oxide catalysts.

Publications

Recent Publications

- R. Garcia, I.J. Shannon, A.M.Z. Slawin, W. Zhou, P.A. Cox and P.A. Wright, Synthesis, structure and thermal transformations of aluminophosphates containing the nickel complex $[\text{Ni}(\text{diethyltriamine})_2]^{2+}$ as a structure directing agent, *Microporous and Mesoporous Materials*, 2003, 58, 91.
- B. Mena and I.J. Shannon, Modulation of the intercalation properties of copper-zinc mixed metal phosphonate materials, *Chemistry - A European Journal*, 2002, 8, 4884.
- J.J. Morrison, C.J. Love, B.W. Manson, I.J. Shannon and R.E. Morris, Synthesis of functionalised porous network silsesquioxane polymers, *Journal of Materials Chemistry*, 2002, 12, 3208.
- B. Mena, B.M. Kariuki and I.J. Shannon, Preparation using metal oxide precursors and crystal structures of copper and zinc vinylphosphonate materials $\text{M}(\text{O}_3\text{PC}_2\text{H}_3)\cdot\text{H}_2\text{O}$ ($\text{M} = \text{Cu}, \text{Zn}$), *New Journal of Chemistry*, 2002, 26, 906.
- H.M.A. Hunter, A.E. Garcia-Bennett, I.J. Shannon, W. Zhou and P.A. Wright, Particle morphology and microstructure of the mesoporous silicate SBA-2, *Journal of Materials Chemistry*, 2002, 12, 20.
- R.J. Clarke and I.J. Shannon, Mesopore immobilised copper bis(oxazoline) complexes for enantioselective catalysis, *Chemical Communications*, 2001, 1936