

ZERNIKE INSTITUTE COLLOQUIUM

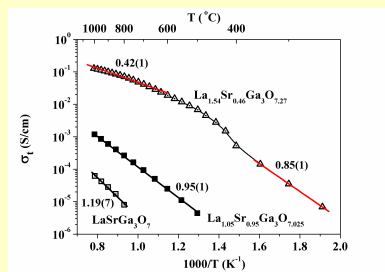
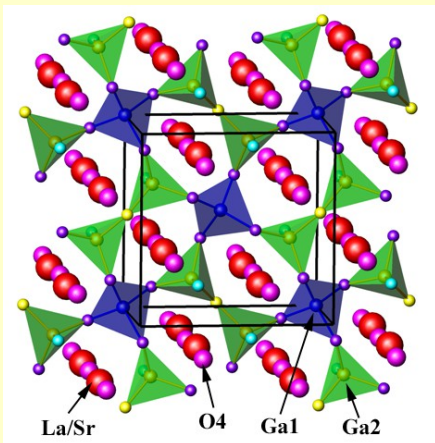
Thursday, April 2nd, 2009

16:00h, Lecture Hall: 5111.0080

Coffee and cakes from 15:30h

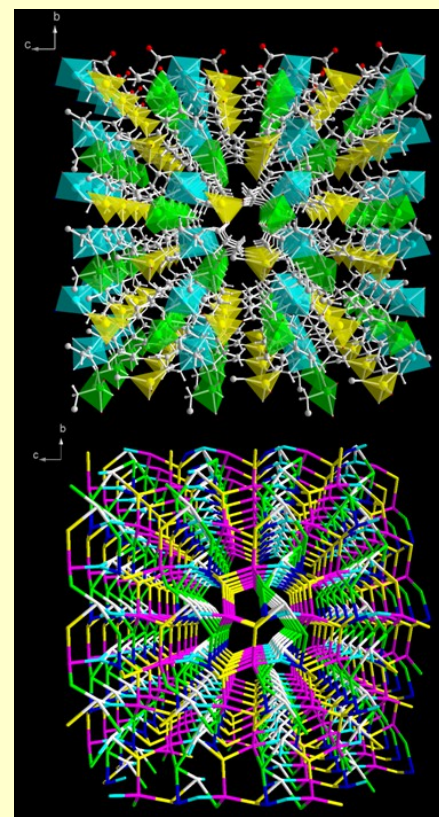
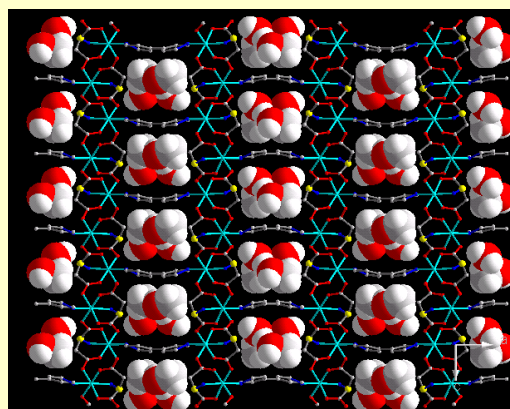
Targetted synthesis of functional solids – oxide ion conductors and biomolecule- based open frameworks

M.J. Rosseinsky
Department of Chemistry
University of Liverpool, UK



Solid materials impact every aspect of modern life. The controlled assembly of atoms and molecules into these extended arrays is a fundamental scientific challenge, which generates materials with applications in

technologies from energy to healthcare. This presentation will address the targeted synthesis of two classes of materials and the development of structure – property – composition relationships within them – ionically conducting metal oxides for intermediate temperature fuel cell applications¹ and biomolecule-based nanoporous open frameworks² with unique reactivity³ and guest recognition behaviour. In both cases, synergic coupling of key structural and chemical features produces the desired properties.



¹ Nature Materials 2008, 7, 498

² Angewandte Chemie 2006, 45, 6495

³ Science 2007, 315, 977

