

ROYAL SOCIETY of CHEMISTRY

SOLID STATE CHEMISTRY GROUP

Christmas Meeting 2009
Thursday 17th and Friday 18th December

Provisional Programme

Thursday 17th December

12.00 (*Register at Accenture: accommodation and poster*)
Conference Registration (*Berrill Building, The Open University*), lunch

Session 1

13:30 Opening Comments

13:40 Invited talk: *Unravelling the Electrical Properties of $ACu_3Ti_4O_{12}$ perovskites*,
Prof. Derek Sinclair, University of Sheffield.

14:20 *Incommensurate Bismuth Based Perovskites: $Bi_2Mn_{4/3}Ni_{2/3}O_6$* ,
Dr. J. B. Claridge, University of Liverpool.

14:35 *A Multidisciplinary Approach to the Structural Characterisation of $NaNbO_3$* ,
Miss K. E. Johnston, University of St. Andrews.

14:50 *Relaxor Behaviour in Materials with the Tetragonal Tungsten Bronze
Structure*, Dr. D. C. Arnold, University of St. Andrews.

15:05 *Room Temperature Metal-to-Insulator Transition in Metastable $VO_2(B)$* ,
Dr. S. A. Corr, University of Kent.

15:20 *Unit-Cell Level Control of $SrFeO_3$ Growth using Pulsed Laser Interval
Deposition and RHEED*, Dr. S. R. C. McMitchell, University of Liverpool.

15:35 Tea

Session 2

16:00 Invited talk: *Simulating Nuclear Fuel (or Fission around for the Defects)*,
Prof. Robin Grimes, Imperial College London.

16:40 *Bismuth-Oxide and Perovskite Ionic Conductors: Atomic Scale Insight into
Defect Properties*, Mr. S. J. Stokes, Bath University.

16:55 *Density Functional Theory Study on the Phases of Iron Sulphide Minerals*,
Dr. D. Spagnoli, Curtin University of Technology.

17:10 *Mechanism of Methanol Synthesis over Al-doped ZnO* , Dr. G. Dutta, University
College London.

17:25 *Computer Modelling Investigation of MgH₂-based Hydrides for Hydrogen Storage*. Dr. R. Grau-Crespo, University College London.

The poster session is at Accenture starting at 18:00.

Friday 18th December

Session 3

9:00 Invited talk: *Bioactive Ceramics, Composites and Coatings*, Prof. Serena Best, University of Cambridge.

9:40 *Synthesis and Characterisation of Amorphous Pyrophosphates and their use in Brushite Bone Cements*, Mr. C. Slater, University of Birmingham.

9:55 *Novel Zeolite Templated Electronic Materials*, Mr. G. J. Baker, Nottingham Trent University.

10:10 *Microwave Synthesis of Silicon Carbide: Rapid Processing and Nanowire Formation*, Ms. L. Carassiti, University of Glasgow.

10: 25 *Superconductivity in NdFe_{1-x}Co_xAsO (0.05<x<0.20) and Rare-Earth Magnetic Ordering in NdCoAsO*, Miss A. Marcinkova, University of Edinburgh.

10:40 *Magnetic and Transport Properties in the Ba₂Co_xZn_{1-x}S₃ Series*, Mr. M. Harrison, University of Hull.

10:55 Coffee

Session 4

11:25 Invited talk: *High Temperature Proton Conductors – Fundamentals and Applications*, Prof. Truls Norby, University of Oslo.

12:05 *Electrochemical Performance of Hybrid Direct Carbon Fuel Cell*, Dr. C. Jiang, University of St. Andrews.

12:20 *Effects of Composition and Polymorphism on Structure and Properties of H₂ Storage Materials*, Ms. N. Sorbie, University of Glasgow.

12:35 *Light Metal Amides for Hydrogen Storage*, Miss A. L. Kersting, University of Birmingham.

12:50 *Characterisation of New Metallated Derivatives of Ammonia Borane as Materials for Hydrogen Storage and Delivery*, Mr. I. Evans, University of Birmingham.

13:05 Prize giving and closing comments. **13:15** RSC Solid State Chemistry Group AGM.