

BCA Industrial Group Forum II - Thursday 13th November

Birkbeck College, London

Joint sessions and all "A" parallel sessions are in the Clore Lecture Theatre in the Clore Management Building.

"B" Parallel sessions are in the Glaxo-Wellcome Lecture Theatre in Crystallography Department.

- 10.00 Registration** - outside the Clore Lecture Theatre in the Clore Management Building.
10.30 Coffee
10.55 – 12.30 Opening Session - Non Ambient Diffraction + Amorphous Pharmaceuticals
10.55 Introduction and Venue Briefing – *Chair Jeremy Cockcroft.*
11:00 In Situ Diffraction from Materials and Macromolecules under Microwave Irradiation. – *Andrew Harrison, University of Edinburgh*
11.30 Non-ambient Laboratory Powder Diffraction Studies - Synthesis, Kinetics and Phase Transitions – *John Evans, University of Durham*
12.00 A review of methods use to quantify amorphous content in "crystals" – *Graham Buckton, The School of Pharmacy, University of London.*

12.30 LUNCH – a buffet lunch will be provided outside the Clore Lecture Theatre

14.00 – 15.15 PARALLEL SESSIONS

A. Pharmaceuticals - Non Ambient applications <i>Chair - Chris Frampton.</i>	B. Crystallography in Materials Science (in Glaxo-Wellcome LT) <i>Chair - Judith Shackleton.</i>
14:00 Relative Humidity Controlled X-ray Powder Diffraction – <i>Brett Cooper, Merck Sharpe & Dohme</i>	14:00 Use of Intense Radiation Sources in the study of Functional Materials – <i>Paul Barnes, Birkbeck College</i>
14:25 Beyond Isostructurality – Structural Similarity, Dissimilarity and Representation– <i>Terry Threlfall, University of Southampton</i>	14:25 Standardless phase quantification of industrial coatings – <i>Susan Etok (Keith Rogers), RMCS Cranfield University</i>
14:50 Polymorphism Induced by High Pressure – <i>Simon Parsons, The University of Edinburgh</i>	14:50 Understanding Gear Performance with X-ray Diffraction – <i>Brian Shaw, University of Newcastle</i>

15:15 Tea outside the Clore Lecture Theatre

15.45 – 17:00 PARALLEL SESSIONS

A. Pharmaceuticals - Polymorphism & Case Studies <i>Chair – Brett Cooper.</i>	B. Non Ambient Applications (in Glaxo-Wellcome Lecture Theatre) <i>Chair – Jeremy Cockcroft.</i>
15:45 Polymorphic Drugs Science, Fashion or Valuable Products – <i>Chris Frampton, Bruker Nonius B.V., Delft, The Netherlands</i>	15:45 Building your own furnace for HT-XRD – <i>Gopinathan Sankar, Royal Institution</i>
16:10 Polymorphism Studies in the Pharmaceutical Industry: The importance of medium and low throughput characterisation in a high throughput world – <i>Dan Cowell, Pharmorphix Limited</i>	16:10 Using High temperature X-ray diffraction within steel/aluminum production: look where the action is! – <i>Stefan Melzer, Corus the Netherlands</i>
16:35 Thermal Transformations - case studies – <i>Ron Roberts, AstraZeneca</i>	16:35 Inconstant Catalysts – <i>Steve Norval, ICI plc</i>

BCA Industrial Group Forum II - Continued...

17:00 Adjourn for Evening programme

The Evening Wine Reception and Lecture is in the Main Lecture Theatre, SOAS (just behind Birkbeck).

- 17:45** Introduction to Ron Jenkins Memorial Lecture – *Steve Norval ICI plc (standing in for Dave Taylor)*
18:00 Ron Jenkins Memorial Lecture:
 New developments in powder diffraction at the Natural History Museum: applications using fast detectors and high– brightness sources – *Gordon Cressey, Natural History Museum*

Friday 14th November

9.30 Industrial Group Award Lecture: Adventures in Crystallography in the Gas Turbine Industry. *Colin Small, Rolls-Royce plc. Chair - Judith Shackleton.*

10:30 Coffee outside the Clore Lecture Theatre

11.00 – 12.30 PARALLEL SESSIONS

A. Pharmaceuticals – Amorphous Materials. <i>Chair - Chris Frampton</i>	B. Industrial Applications. <i>Chair – Steve Norval. (in Glaxo-Wellcome Lecture Theatre)</i>
11:00 Structural characteristics of the amorphous phase: A computer modelling approach.– <i>Stephen Watt, Pfizer.</i>	11:00 Microstructural Characterisation of Advanced Materials Using Electron BackScattered Diffraction. – <i>Phil Holdway, QinetiQ Ltd.</i>
11:30 Application of Dynamic Mechanical Analysis in the Characterisation of Amorphous Powders – <i>Paul Royall, Kings College London</i>	11:30 XRD and Reflectivity Measurements in the Glass Industry. – <i>Mark Farnworth, Pilkington plc.</i>
12:00 The use of Thermally Stimulated Current Spectroscopy in the study of amorphous and polymorphic materials – <i>Susan Barker, University of East Anglia</i>	12:00 Applications of XRD in the Imaging Industry. – <i>David Beveridge, Ilford Ltd</i>

12.30 LUNCH – a buffet lunch will be provided outside the Clore Lecture Theatre

14:00 – 15:30 Instrumentation – Past, Present and Future. *Chair Jeremy Cockcroft*

- 14.00 Past** – "Who Controls The Past Controls The Future" – *Professor Alan L. Mackay, FRS. Birkbeck College.*
14.30 Present – "It's A Diffractometer Captain But Not As We Know It" *Judith Shackleton, Manchester Materials Science Centre.*
15.00 Future – Alun Bowen Lecture, – "Structural Engineering Studies Using High Energy X-Ray Diffraction" - *Alexander Korsunsky, Oxford University, Dept. of Engineering Science*
15.30 Tea & Close outside the Clore Lecture Theatre