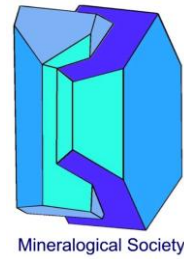


Futuro@Clays



Mineralogical Society

Advances in Clay Science for Future Geological, Environmental and Industrial Applications

**Devonshire Building, Devonshire Terrace,
School of Civil Engineering & Geosciences, Newcastle University,
Newcastle upon Tyne, England UK**

2009 Annual Meeting of the Clay Minerals Group of the Mineralogical Society

Programme

Sunday 13 December

18:00 - 20:30 Registration and Drinks Reception (Devonshire Building)

Monday 14 December – Iron in Clays and Clay Minerals

09:00 Registration and refreshments (Devonshire Building)

09:30 Welcome to Newcastle University and the School of Civil Engineering and Geosciences
Professor David Manning

09:40 Introduction to meeting
Dr Claire Fialips

09:45 *Clay Minerals Group – 10th George Brown Lecture*
Professor Joseph W. Stucki, University of Illinois at Urbana Champaign, USA
Evolution of the study of redox reactions of Fe in smectites

10:30 Conference photographs

10:45 Refreshments

11:00 *Keynote speaker: Dr Ravi Kukkadapu*
Pacific Northwest National Laboratory, Richland, WA, USA
Effect of Fe-mineral (oxides and clays) reductive biotransformations on remediation of radioactive metals from contaminated aquifers

- 11:40 **Ms Alison McAnena**
Newcastle University, Newcastle, UK
Sulfide-promoted reductive dissolution kinetics of Fe(III) minerals in a modern marine sediment
- 12:05 **Mr Sani Yahaya**
Newcastle University, Newcastle, UK
Application of bacterial iron reduction for the removal of iron impurities from industrial kaolin
- 12:30 Lunch, preceded by the AGM of the Clay Minerals Group of the Mineralogical Society
- 14:00 **Dr Claire Fialips**
Andra, Châtenay-Malabry, France
Remediation of redox-sensitive contaminants using iron-bearing clay-coated sand
- 14:25 **Dr Tamás G. Weiszbürg**
Eötvös Loránd University, Budapest, Hungary
'Mauritzite': a ferro/ferri-saponite transforming by immediate in-situ oxidation in dacite cavities, Erdőbénye, Hungary
- 14:50 Refreshments
- 15:10 **Dr Steve Hillier**
The Macaulay Land Use Research Institute, Aberdeen, UK
Quantitative analysis of Fe-bearing clays by XRPD - the challenges of the pattern fitting approach
- 15:35 **Dr Jenny Huggett**
Petroclays Geological Consultancy, Heathfield, Sussex, UK
Glauconite formation in lacustrine/palaeosol sediments, Isle of Wight (Hampshire Basin), UK
- 16:00 - 17:50 Posters (refreshments available)
- 18:45 - 22:30 **FuturoClays Meeting Dinner at Great North Museum: Hancock**
Drinks and a curator-led tour of the museum and exhibits followed by dinner

Tuesday 15 December – New Advances in Clay Science

- 09:30 *Keynote speaker:* **Dr Deeba M. Ansari**
Imerys Minerals Ltd., St Austell, Cornwall, UK
Current and future demands for clay minerals – an industrial perspective

- 10:10 **Professor Robert Brown**
University of Huddersfield, Huddersfield, UK
Highly active oxide catalysts by controlled-rate microwave calcination of anionic clay precursors
- 10:35 Refreshments
- 10:50 **Ms Inese Sarceviča**
University of Latvia, Riga, Latvia
Properties of chemically modified Latvian Trias clay
- 11:15 **Dr Chris Greenwell**
Durham University, Durham, UK
Investigating organic-clay interactions
- 11:40 **Ms Dawn Geatches**
Durham University, Durham, UK
The role of clay minerals in oil forming reactions
- 12:05 Lunch and posters
- 14:00 *Keynote speaker: Dr Eric Ferrage*
HydrASA Laboratory, Université de Poitiers, France
Recent advances in the characterization of organizational properties of water in expandable clays
- 14:40 **Ms Elena Kuznetsova**
Lomonosov Moscow State University, Moscow, Russia
Estimate of unfrozen water content for frozen volcanic ashes of different ages
- 15:05 Refreshments and posters
- 15:35 **Mr Mohammad Adamu**
Newcastle University, Newcastle upon Tyne, UK
Semi-Quantitative Mineralogy of Shales using Attenuated Total Reflectance Infrared Fourier Transform Spectroscopy and Classical Least Square Analysis
- 16:00 **Mr Uzochukwu Ugochukwu**
Newcastle University, Newcastle upon Tyne, UK
Biodegradation of crude oil hydrocarbon fractions supported on clay minerals
- 16:25 **Professor David Manning**
Newcastle University, Newcastle upon Tyne, UK
Formation of ammonium clays during the weathering of coal: a novel process for the mineralization of N
- 16:50 - 17:00 Closing remarks

Wednesday 16 December

Field trip to Shotton Surface Mine, Northumberland

Notes: Stout footwear or boots will be required and please wear clothes that can get dirty. Trainers or ordinary shoes are not acceptable. Hard hats and high visibility jackets will be provided.

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| 09:00 | Meet outside Devonshire Building, Devonshire Terrace, Newcastle University |
| 09:15 | Depart for field trip to HJ Banks Surface Mine, Shotton, Northumberland (lunch provided) |
| 15:30 - 16:00 | Return to Newcastle University via airport and train station |