

CO₂Chem Network – Mineralisation Cluster Workshop

Mineral Carbonation: Identifying the R&D Priorities

10:00am – 4:45pm (& after) Wednesday 28th November 2012

Library, Royal Society of Chemistry, Burlington House, Piccadilly, London

(location: 5mins walk midway between Piccadilly Circus or Green Park tube stations)

Industry Chair: Michael Priestnall (CEO, Cambridge Carbon Capture Ltd)

Academic Chair: Mercedes Maroto-Valer (Professor, Heriot-Watt University)

Programme

- 10:00-10:20 *Registration, coffee & networking*
- 10:20 **Welcome, mineralisation overview, workshop & cluster objectives; participants' interests & introductions**
Michael Priestnall (Cambridge Carbon Capture Ltd)
- 10:35 **Setting the scene – natural cycle: CO₂, silicates, rivers & oceans**
Prof Mike Bickle (Cambridge University, Earth Sciences)
- 10:45 **Setting the (R&D) scene – international research progress & status**
Prof Mercedes Maroto-Valer (Heriot-Watt University, Engineering & Physical Sciences and Institute of Petroleum Engineering)

Session 1: Large-scale CO₂ sequestration via mineral carbonation

- 11:00 **ETI's Mineralisation Project – overview, results and conclusions**
Dr Rebecca Sweeney (Energy Technologies Institute)
- 11:20 **ETI's Mineralisation Project – influence of mineral type on reactivity**
Prof Mike Styles (BGS/NCCCS)
- 11:30 **UAE natural analogue for mineral carbonation**
Alicja Lacinska (BGS/NCCCS)
- 11:40 **Coupling mineral carbonation with ocean alkalinity enhancement**
Dr Phil Renforth (Oxford University, Martin School, Geoengineering)
- 11:50-12:10 *Q&A, comments & discussion*

Session 2: R&D activities, opportunities & pace of development

12:10	Research at Heriot-Watt – Prof Mercedes Maroto-Valer (Engineering)
12:20	Research at Aberdeen – Prof Fred Glasser (Chemistry)
12:30	Research at Southampton – Prof Damon Teagle (Ocean & Earth Sciences)
12:40	Research at Hull – Dr Will Mayes (Environmental Science)
12:50	Research in USA – Dr Juerg Matter (Earth Sciences, Columbia)
13:00-13:20	<i>Q&A, comments & discussion</i>
13:20-14:00	<i>Lunch & networking (and posters)</i>

Session 3: Industrial applications & commercial development

14:00	Silica, metals & Mg/Ca oxides (& power) from minerals & wastes Michael Priestnall (Cambridge Carbon Capture Ltd)
14:10	Aggregate products via carbonation of APC dust wastes Prof Colin Hills (C8S Aggregates Ltd)
14:20	A European perspective on carbonation of wastes Dr Fidel Grandia (Amphos21 Consultants)
14:30	Commercial mineral carbonation in Netherlands Dr Keesjan Rijnsberger (Innovation Concepts BV)
14:40	Carbon sequestration in the cement industry Prof Alan Maries (MIRO/SCI)
14:50-15:10	<i>Q&A, comments & discussion</i>
15:10-15:20	<i>Tea & networking</i>

Session 4: Key application opportunities & associated R&D (& policy) milestone priorities

15:20	Workshop session 1 – parallel discussion groups
15:50	Workshop session 2 – parallel discussion groups
16:20	Feedback of workshop main conclusions
16:40	<i>Closing comments</i>
16:45	Close
17:00-19:00	<i>Drinks & networking</i>

Many thanks to all our sponsors. A list of workshop participants will be available at the meeting.
Organiser: michael.priestnall@cacaca.co.uk; 07980-707076; Venue: RSC, tel: 020-7437 8656