

MEETING REPORT

SPECIATION AND TOXICITY CONFERENCE LONDON, UK 13-14 SEPTEMBER, 2004

A successful meeting on the theme of 'Speciation and Toxicity' was held at the Research School of Earth Sciences at UCL-Birkbeck on the 13th and 14th of September 2004. The meeting was sponsored by the Geochemical Society (via the GS MAP fund), the UK Mineralogical Society, The Environmental Mineralogy, Applied Mineralogy and Geochemistry Groups of the Mineralogical Society, the Society of Environmental Toxicology and Chemistry (SETAC) and CAMLAB.

Ecotoxicological studies are concerned with determining structural and functional changes in ecosystems under the influence of environmental chemicals, which include mineralogical and geochemical species, in water, soil, sediment and air. The toxicity of these species varies according to the nature of their complexing agents, solubility, oxidation state, co-ordination environment, and other factors. This meeting brought together geochemists, mineralogists, biologists, ecologists and toxicologists to discuss these issues and identify avenues for future research and collaboration. Sixty-three participants and 8 keynote speakers (total of 71 people) attended the meeting.

The three main meeting themes were:

1. Speciation. Studies on the mineralogical and geochemical properties of toxic species, and measurement and monitoring.
2. Ecotoxicity. Studies on the fate and effects of toxic substances on organisms, especially on populations and communities within defined ecosystems, and methods of monitoring and measuring these effects
3. Integrated Studies. Studies linking toxic element mineralogical and geochemical speciation with toxicity to plants and biota (including humans).

The meeting was structured around eight keynote addresses on speciation and toxicity. The speakers were John Duffus (Edinburgh Centre for Toxicology), Willie

Peijnenburg (RIVM, The Netherlands), Jerome Nriagu (University of Michigan, USA), Peter Goering (US-FDA), Bill Davison (University of Lancaster, UK), Vala Ragnarsdottir (University of Bristol, UK), Iain Thornton (Imperial College, University of London, UK) and Sean Comber (WRC-NSF, UK). All speakers gave excellent 45-minute presentations that were enthusiastically received, and generated many questions.

A plenary poster session was held in the afternoon of the first day of the meeting. Over 35 posters were presented, including 14 student posters. The latter were judged by the 8 keynote speakers, and a prize of £80 of book tokens was awarded by Dr Graeme Paton, Vice President, SETAC-UK (Society of Environmental Toxicology and Chemistry) on Tuesday 14th September AM, to the best student poster (Imad Ahmed from the University of Nottingham, UK).

Workshops were held in the afternoon of the second day of the meeting. Three groups were formed to discuss (1) determining toxicity in the field, (2) how do we set regulatory limits for contaminants in soils and (3) measuring speciation. The notes generated from these discussions were compiled and sent to all registrants.

A special issue of *Mineralogical Magazine* on the meeting is currently being prepared. Feedback from participants was extremely good, and we hope the meeting will generate future research, discussion and collaboration in this area. We are very grateful to all our sponsors for support of the meeting.

Karen Hudson-Edwards
Birkbeck, University of London, UK

Mark Hodson
University of Reading, UK