

MANCHESTER
1824

The University of Manchester

British Organic Geochemistry Society 34th Meeting

11 – 12 July 2024

Manchester



British Organic Geochemistry Society Meeting 2024

Wednesday 10th July

Icebreaker Event

18:00-22:00

Thursday 11th July

09:00 Registration and Coffee

10:00 Welcome and opening remarks

Session 1 Oral Presentations (Chair: Kirsi Keskitalo) 10:15-11:15

10:15 **Hector de las Heras.** *Gordonia amarae* and *Mycobacterium tuberculosis* mycolic acid isomers revealed by cyclic ion mobility (cIM)-mass spectrometry (MS).

10:30 **Mingchong Wang.** Removal of Tributyltin from Water Using a Coupled Adsorption and Electrochemical Regeneration Process.

10:45 **Saule Akhmetkaliyeva.** Carbon provenance study of Irish saltmarshes using bacteriohopanepolyol biomarkers.

11:00 **Mike Vreeken.** Intact polar lipids in peatland depth profiles; Insights in the microbial community and lipid production.

11:15 Coffee Break (35min)

Session 2 Oral Presentations (Chair: Zoë van Kemenade) 11:50-12:50

11:50 **Jingyi Wei.** Using the isotopic composition of general phytoplankton biomarkers to understand the role of carbon dioxide in climatic and ecological change in the Devonian.

12:05 **Stuart Rae.** Characterising and Quantifying the Pollution Levels in an Urban Sustainable Drainage System (SuDs).

12:20 **Stamatia Galata.** The impact of mining plumes on organic matter quality and quantity from two deep-sea areas of the Clarion- Clipperton Zone, NE Pacific Ocean.

12:35 Poster Flash Talks part 1

12:50 Lunch (50min)

Session 3 Oral Presentations (Chair: Saule Akhmetkaliyeva) 13:40-14:40

13:40 **Calum Preece.** Elementar: Analytical solutions for geochemistry

13:55 **Jennifer Taylor.** New insights on the response of a fjord catchment NW Scotland, UK to the Younger Dryas.

14:10 **George Wilson.** Recharge initiates autochthonous production of dissolved organic matter groundwaters in West Bengal.

14:25 Poster Flash Talks part 2

14:40 Coffee Break (35min)

Session 4 Keynote lecture (Chair: Bart van Dongen) 15:15-16:00

James Bendle. Bacterial 3-Hydroxy Fatty Acids (3-OH-FAs): A New Proxy Hope?

Session 5 Poster Presentations 16:00-18:00

Please see page 3 for the list of posters.

Conference Dinner From 19:00

Friday 12th July

Session 6	Oral Presentations (Chair: Stamatia Galata)	09:30-10:45
09:30	Yiming Zhang. Shrub expansion and microbial synergies protect peatland carbon stores during past Holocene drying.	
09:45	Alumona Theresa Ngozi. Assessing the maturity parameter of Nigerian crude oil using oil biomarkers to investigate the source of oil seepage in the terrestrial environment.	
10:00	Joe Hingley. Evaluating grain size controls on lipid biomarker distributions in marine sediments.	
10:15	Florence Dennis Uzu. Assessing the Removal Efficiency of Methyl Orange using a Novel Nyex Rosalox™ Process Flow Through Cell.	
10:30	Cedric Andreasen. Applying amide bound 3-hydroxy decanoic acid as a biomarker for sewage fungus (<i>Sphaerotilus natans</i>).	
10:45	Coffee Break (35min)	
Session 7	Oral Presentations (Chair: Gordon Inglis)	11:20-12:35
11:20	Kirsi Keskitalo. Composition of organic carbon in the flocculation layer on the Laptev, East Siberian, and Kara seas.	
11:35	Bridget Warren. A terrestrial early Eocene environment from the Rockall Trough	
11:50	Zoë van Kemenade. A reconstruction of Neogene atmospheric carbon dioxide across globally distributed marine sites using a multi-biomarker approach.	
12:05	Robert Sparkes. "Total" Organic Carbon.	
12:20	Wanyue Zhao. Monitoring uptake of root-derived carbon into the soil carbon pool and microbial community using stable isotope probing of volatile organic compounds (SIP-VOC) and SIP-PLFA analysis	
12:35	Closing Remarks	
13:00	Lunch (60min)	
Early Career Event		14:00-15:00

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List of Posters

- 1. Rawand Aldali** High resolution accurate mass spectrometry as a means of characterising, differentiating, and linking soils of forensic interest.
- 2. Jia (Lilly) Sun** Climatic and biogeochemical changes across the holocene recorded in an alpine peatland in central Asia.
- 3. Jack Darch** Decoupling between alkenone and GDGT temperature proxies during the late Miocene Cooling interval.
- 4. Gemma Baker** The potential of lipid biomarkers to interpret the dietary profiles of 2 lemur species with different feeding habits.
- 5. Maarten van Hardenbroek** Past methane availability in lakes in Alaska was higher during the Holocene Thermal Maximum.
- 6. Meg Baker** Globally significant mass of terrestrial organic carbon efficiently transported by canyon-flushing turbidity currents.
- 7. Panteleimon Prokopiou** Tropical Peatland Plant Lipids and Their Isotopic Compositions – Potential for Assessing Past Climate Changes.
- 8. Megan Jenkins** Bacterial Lipid Biomarkers in Tropical Peatlands.
- 9. Mollie Lowrie** Organic matter compositional variability in drained agricultural peat.
- 10. Zhongxuan Li** Geochemical Insights from Snow Petrel Preys and Stomach Oil.
- 11. Mark A Stevenson** Reconstructing Holocene Antarctic ecosystem, climate and sea ice using snow petrel stomach oil deposits.
- 12. Kirby Robinson** The Fate of Organic Matter in Congo Peatlands.
- 13. David Jones** The use of thermal desorption gas chromatography mass spectrometry (TD-GC-MS) to characterise plastics, identify key marker compounds, and differentiate between item types.
- 14. Emily Donaghy** Microfibres in Soils: Detection, Degradation, and Impact.