Biogeochemistry of Terrestrial Organic Matter

221st ACS National Meeting
San Diego, California
April 2001

Organic matter stored on land contains more actively cycling carbon than any other mobile reservoir except seawater-dissolved inorganic carbon. Thus, knowledge of the mechanisms and rates of transformations of organic matter in the form of land biota, soils and peat, as well as fossil carbon, is critical to understanding the global carbon cycle.

We invite you to contribute papers to this special session on both laboratory- and field-based investigations of the biogeochemical controls of storage, degradation and transport of terrestrial organic matter. We especially solicit contributed papers that discuss such issues as: (a) ecosystem and environmental controls on decomposition and preservation of terrestrial organic matter in soils and peats; (b) production of dissolved organic matter; (c) fungal alteration; (d) redox chemistry of microbially-degraded residues; (f) degradation and preservation of woody tissue; and (g) bacterial utilization of degraded organic carbon.

For electronic submission and further information please see www.acs.org/meetings

Organizers

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Announcement

Biogeochemistry of Archaea

Symposium at the 221st ACS Meeting in San Diego, CA
1–5 April 2001

Archaea are one of the three kingdoms of life on Earth. However, organic geochemical analyses of recent and ancient sediments have primarily focused on eubacteria and eukaryotes and their role in the (paleo)environment. With the advent of molecular biology, it is now clear that archaea are widespread and important organisms in non-extreme marine, lacustrine and terrestrial environments and thus should have a pronounced impact in (paleo)environments. In this symposium, contributions are welcomed which provide insights into the biogeochemistry of archaea in past and present environments. Specific topics include:

- Sedimentary records of compounds and organic matter of archaea
- Molecular biological and organic geochemical analysis of archaea
- Impact of archaea on past and present environments
- Methane cycle and archaea: methanogenesis and anaerobic methane oxidation
- Ecological significance of non-thermophilic Crenarchaeota
- Specific biomarkers for archaea
- Isotopic fractionation patterns of archaea
- Archaea in (past) extreme environments

Any other contributions on the biogeochemistry of archaea are, however, also welcomed. For any further information please contact the Organizer, Stefan Schouten.

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Announcement
American Chemical Society
Division of Geochemistry Inc.

Symposium on
CHEMICAL REACTIVITY OF AROMATIC AND SULFUR-
CONTAINING AROMATIC HYDROCARBONS IN NATURAL SYSTEMS

ACS Spring Meeting
San Diego 1–5 April 2001

I Origins and preservation of aromatic hydrocarbons
- early formation in soils and sediments via diagenesis
- role of mineral sulfur and bacterial processes associated with biochemical reaction
- aromatic potential of coal and kerogen
- quantitative estimation and chemical distribution, molecular weight distribution, etc.

II Chemical reactivity
- thermal stability, global kinetics, rate constant and mixture effect
- gas potential and isotopic fractionation
- molecular modeling
- biodegradation in modern and ancient soils and sediments
- experimental simulation of aromatic biodegradation: determination of qualitative and quantitative effect
- mitigation strategies for environmental systems
- ageing processes for PAHs

III Qualitative and quantitative analyses for characterization of aromatic hydrocarbons
- HPLC–GCMS analyses
- high temperature–MS analyses
- liquid chromatography/MS analyses
- high resolution GC analyses
- pyrolysis/GC–MS analyses
- high resolution NMR analyses
- group analyses by low voltage mass spectrometry

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Tenth International Symposium on Water-Rock Interaction

Villasimius, Italy, June 10-15, 2001

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The Symposium will be held in the village of Villasimius (SW Sardinia), on 10-15 June 2001, with a mid-session field trip on June 13, and will be preceded and followed by four field trips in Central and Southern Italy, in areas of great scientific traditions, as well as artistic and environmental beauty. Sardinia is an island famous for its geological features, cultural heritage and mild climate.
The symposium will be dedicated to all the aspects of water-rock interaction, but particular emphasis will be given to new aspects in the applied sciences.

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Additional information on WRI-10 are in: http://www.unica.it/wri10. We encourage all of you to visit WRI-10 home page for information about the Symposium, as well as general and travel information to Sardinia and Italy. Information about previous WRI meetings and related topics are reported in: http://wwwrcamnl.wr.usgs.gov/wri