



13a: From Source to Sink and Back in Time – Potential and Limitations of Aquatic and Terrestrial Biomarkers as Paleoenvironmental Indicators

**Session chaired by Bernhard Aichner, Zhonghui Liu,
Ken Sawada & Nikolai Pedentchouk**

09:00 Discovery of Alkenenes with Variable Methylenes Interrupted Double Bonds in *Emiliania huxleyi*: Implications for Biosynthetic Pathways
Zheng Y, Dillon J, Zhang Y & Huang Y

09:15 Evaluating Sedimentary Chlorins as a Proxy for Primary Productivity and Nutrient Utilization
Raja M & Rosell-Melé A

09:30 Perylene in Lake Biwa, Japan
Itoh N

09:45 Comparison of Organic Temperature Proxies (UK'37, LDI) in the East Sea (Sea of Japan)
Gal J-K, Kim J-H, Lee D-H, Kang SJ, Hwang J & Shin K-H

10:00 Constraints on the Application of Long Chain Diol Proxies in Sediments of the Iberian Atlantic Margin
de Bar M, Dorhout D, Sinnighe Damsté J & Schouten S

10:15 The C32 Alkane-1, 15-Diol as a Tracer for Riverine Input in Coastal Seas
Lattaud J, De Jonge C, Kim J-H, Zell C, Sinnighe-Damste J & Schouten S

10:30 Transport of Soil Organic Carbon in the Upper Catchment of the Amazon River Traced by Branched GDGTs
Kirkels F, Ponton C, Feakins S, West J & Peterse F

10:45 Stable Isotope Probing Reveals the Preferential Growth of Branched GDGT Source Microorganisms Under Aerobic Conditions in Peat
Huguet A, Meador TB, Laggoun-Défarge F, Könneke M, Derenne S & Hinrichs K-U

11:00 Mass Spectrometry Imaging of Molecular Biomarkers on Intact Sediment Sections
Wörmer L, Moros M, Schimmelmann A & Hinrichs K-U

11:15 Multiproxy Characterization of Sedimentary Biomarker Archives Using Ultrahigh Resolution Mass Spectrometry
Radovic J, Silva R, Larter S & Oldenburg T

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13:45 The Stable Carbon Isotopic Composition of Marine Phytoplankton throughout the Phanerozoic
Witkowski CR, Schouten S & Sinnighe Damsté JS

14:00 Marine Ecosystem Across the Cenomanian-Turonian Boundary Reconstructed by Biomarker Analysis
Ando T, Sawada K, Nakamura H, Takashima R & Nishi H

14:15 Paleoenvironmental Reconstruction of the Late Cretaceous Songliao Paleo-Lake by Molecular Biomarkers
Hu J, Cao H, Tong X, Xi D & Peng P

14:30 Lignin Phenol Biomarker Records in the late-Quaternary California Sediment
Nakakuni M, Dairiki C, Shimada M, Ishiwatari R & Yamamoto S

14:45 Toward the Molecular Based Reconstruction of Paleovegetation and Palaeoenvironment by Plant Terpenoid Biomarkers: Maturity Related Biases
Nakamura H, Sawada K, Ando T, Miyata Y, Takashima R & Niche H

15:00 Paleolipidomics of Resistant Macromolecules in Terrestrial Plant Fossil: Paleochemotaxonomy and Paleoenvironmental Reconstruction
Sawada K, Miyata Y, Nakamura H & Takahashi M

15:15 Challenging GDGT Proxies' Assumptions of Archaea Ecology: Compound-Specific $\delta^{13}\text{C}$ and Genetic Insights from Orca Basin, Gulf of Mexico
Lichtin S, Warren C, Pearson A, Near T & Paganini M

15:30 Reconstruction of Late Holocene Flooding History by GDGT Proxies in Beppu Bay Sediments
Yamamoto M, Kuwae M, Irino T, Ikehara K & Takemura K

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292 Variations in Terrestrial Plant Biomarker Compositions in a Sediment Core of IODP Site U1423 over the Last 4 Ma: Paleovegetation and Transport of Terrigenous Matter

Aoyagi C, Sawada K, Furota S, Irino T & Igarashi Y

293 Role of Climate and Fluvial Architecture on Temporal and Spatial Variation in C4 Plant Abundance: A Compound Specific Isotopic Evidences from the Late Miocene Siwalik Deposit of NW India

Ghosh S & Sanyal P

294 Late Cretaceous Paleoenvironments in the Termit Basin, Niger

Liu B, Zhang G, Mao F & Liu J

295 Can Biomarkers in Non-Fossiliferous Chattanooga Shale (Late Devonian) Show Evidence of the Earliest Land Forest on the Southern Appalachian Landmass?

Lu M, Lu Y, Ikejiri T, Ibrahim C, Pashin J & Hogancamp N

296 Carbon Isotope Ratios in Plant Wax N-Alkanes in Sediments from the Eastern Mediterranean Sea Since the Last Glacial Period

Mohamed KSS, Naraoka H & Okazaki Y

297 Paleo-Environmental Analysis during 1.5 Ma from Organic Matter in Lake Biwa (Japan) Sediment

Ochi Y, Urabayashi K & Yamamoto S

298 Evolution of Lipid Biomarkers as Indicators of Environmental Changes in an Anoxic Lagoon: “Lac de Tunis”

Ouertani N, Hamouda R & Belayouni H

299 Solar Output Controls Periodicity in Lake Productivity and Wetness at Southernmost America

Pérez-Rodríguez M, Gilfedder B-S, Hermanns Y-M & Biester H

300 The Impact of Oxic Degradation on Long Chain Diol Proxies: A Laboratory Study

Reiche S, Rampen SW, Sinnighe Damsté JS & Schouten S

301 Paleoenvironmental Reconstruction by Biomarker and Kerogen Analyses of Sediments Around the Triassic-Jurassic Boundary from North America

Tateshita Y, Sawada K & Ikeda M

302 Geochemical Comparison of Source Rock and Crude Oil and the Analysis of Hydrocarbon Accumulation of T Block in Oriente Basin, Ecuador

Xie Y, Ma Z, Yang X & Liu Y

303 Source Rocks Variation and its Links to Sequence Stratigraphy in the Upper Cretaceous of the Oriente Basin, Ecuador

Yang X-F, Xie Y-F, Ma Z-Z, Zhang Z-W, Liu Y-M, Zhou Y-B & Wang D-D

13e: Environmental Isotopes of Organic Aerosols in the Atmosphere

304 Molecular Distribution and Stable Carbon Isotopic Composition of Low-Molecular-Weight Dicarboxylic Acids during Biomass Burning Aerosols in Northeast China

Cao F, Kawamura K, Zhang S-C & Zhang Y-L

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