



A Short Course on Molecular Geochemistry: Biomarkers – Isotopes – Diamondoids – CSIA

*Convener:
J.M. (Mike) Moldowan, CEO
Biomarker Technologies, Inc.

A Short Course on Molecular Geochemistry: Biomarkers – Isotopes – Diamondoids – CSIA presents an in-depth and detailed review of molecular geochemistry as it relates to oil and gas exploration and production. This course offers sufficient detail in order for graduates to make informed decisions about methods selection and have the ability to interpret biomarker and diamondoid data. New technologies of diamondoids and CSIA are featured topics.

Studies have shown that geochemistry can significantly reduce exploration risk. Molecular geochemistry of oil and gas to determine its geologic provenance is probably the major tool; however, the technology is complex and not in the main stream of education for most geologists, geophysicists and engineers. Furthermore, recent advances may be difficult to assimilate or they may be unavailable from the published literature.

Who Will Benefit From This Short-Course?

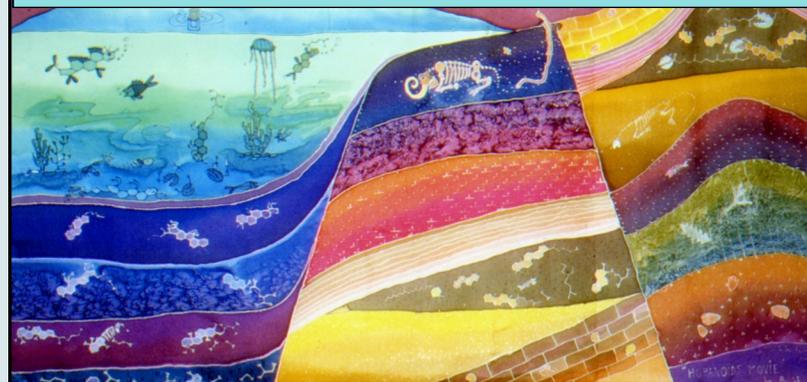
- Exploration and production geologists, geophysicists and engineers who wish to understand what impact the recent advances in molecular geochemistry can have on E&P projects.
- Basin Modelers who wish to strengthen their skills with classical geochemistry and apply new technologies that help to reveal the complete petroleum system.
- Geochemists, chemists and geologists who wish to improve their interpretive and project-design skills to utilize all the advantages petroleum geochemistry has to offer.
- Freshmen petroleum geochemists who wish to obtain a more in-depth knowledge of the subject by having the opportunity for intensive study.
- Advanced undergraduate and graduate students in geology, geochemistry, chemistry and petroleum engineering who wish to broaden their scope of knowledge to diversify their possible career pathways.
- Exploration managers who wish to stay abreast of available geochemical methods to reduce exploration risks.

*Academic Affiliation:

Professor (Emeritus), Stanford University
Department of Geological & Environmental Sciences

Text from the following reference book:

Peters, K.E., Walters, C.C., and Moldowan, J.M., "The Biomarker Guide: Volume 2: Biomarkers and Isotopes in Petroleum Exploration and Earth History." 2nd Edition. Cambridge University Press, 2005.



To Register and Obtain Further Information:

Biomarker Technologies, Inc., 638 Martin Avenue, Rohnert Park, CA 94928
707-829-5551, ext. 203 phone
Email: info@biomarker-inc.com



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The Following Short Course Will Be Given:

Four Day Course:² (**September 19–22, 2016**). Provides all the necessary basic principles to become the gateway for geoscience professionals to excel as a geochemical interpreter within their company, whether or not experienced with geochemistry. Practicing geochemists will benefit by reviewing the foundations of their science while assimilating new technological breakthroughs, the use of which can lead to new play concepts.

²Please inquire for more detail concerning course content

Tuition Cost:

³\$3,600.00 USD (Early Registration Discount (10%)) — **Deadline: June 1, 2016**

\$4,000.00 USD (Final Registration — **Deadline: August 19, 2016**)

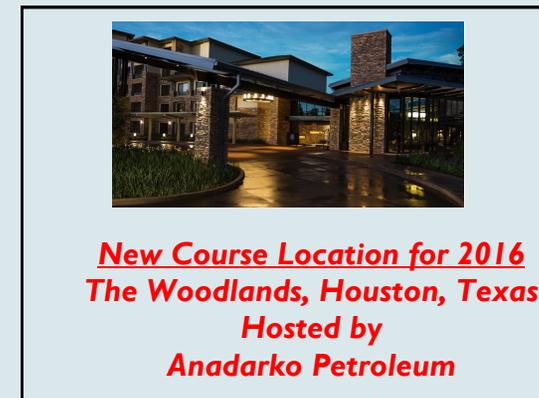
³Completed Registration and Payment Received

Part I. Introduction to Biomarker and Isotope Methods

- Learn molecular geochemistry from fundamentals to applications
- What paleo-environmental conditions led to source rock formation?
- Predict source rock quality from analysis of oil
- Link biomarker fingerprints and composition of crude oil to:
 - source input
 - depositional environment
 - thermal maturity
 - biodegradation
- Use age-related biomarkers in oil to determine source rock age
- Choose analytical methods and protocols to deliver the critical information
- Learn fundamentals of reservoir geochemistry: communication, allocation

Part II. Diamondoids and Compound Specific Isotope Analysis (CSIA)

- Determine and de-convolve mixed-oil accumulations
- Reveal deep gas generated beneath established oil provinces
- Identify sources of cracked condensate and gas even when mixed with black oil from another source
- Find oil, condensate and gas seeps from piston core samples
- Learn how diamondoids can help to evaluate tight-shale producibility and product composition



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