

Biological Markers in Sediments and Petroleum

Edited by **J. Michael Moldowan, Pierre Albrecht, and R. Paul Philp**, Published by Prentice Hall. 1992. ISBN: 0-13-083742-3. 411 pages

Review by **Christopher G. Kendall**

This book is a compendium of papers presented at the American Chemical Society meetings held in Dallas, Texas between April 9-14, 1989. The intent of this book is to identify biochemical and diagenetic markers, which will improve the capability to reconstruct paleodepositional settings. The paradigm being that studies of biomarkers and immature recent sediments can be compared with mature aging sediments to provide a means to establish the characterization of paleoenvironments. The book traces recent advances and continued progress in the study of biomarker organic geochemistry.

The book contains some nineteen papers whose topics include "hopanoids, procaryotic, tritaritpenoids, and the precursors of ubiquitous molecular fossils" to "biomarker distributions in crude oils", "hydrothermal systems", "hydrocarbon biological markers in the Carboniferous coals", "oil to source rock correlation using carbon isotopic data and biological marker compounds", etc. There's even a discussion on source rock correlation, source correlation maturities, assessment of source rocks and rocks in the central Adriatic basin in Italy and Yugoslavia.

The papers in this volume are short and to the point and are directed at the discussion of biomarker history. Illustrations are relatively clear and the audience is definitely intended to be members of the oil industry and there is an emphasis on the use of biomarkers for oil correlation, age dating, and paleoenvironmental interpretations. The book should also be of interest to people who are studying biomarkers in the Chemistry and Geoscience Departments of universities, since it focuses on the latest advances in this field. It's a good source volume if you are tracking an understanding of biomarker behavior and their use. It's a volume that could give its best service in the libraries of your university or company. However, unless you're a specialist in biomarkers yourself, this text is not probably for you. It's not an introductory volume.

The text is well-referenced and is certainly timely, as it attempts to compress the information of the papers into as small a space as possible.