

# INTRODUCTION TO ORGANIC GEOCHEMISTRY

Second Edition

*Introduction to Organic Geochemistry* explores the fate of organic matter of all types, biogenic and man-made, in the Earth System. It investigates the variety of pathways and biogeochemical transformations that carbon compounds can experience over a range of time scales and in different environments.

The scope of this second edition has been widened to provide a broad and up-to-date background, and the text has been structured to accommodate readers with varied scientific backgrounds. Essential terminology is defined fully and boxes are used to explain concepts introduced from other disciplines. Further study is aided by the incorporation of carefully selected literature references.

Geology, geochemistry and environmental science undergraduates and postgraduates, as well as students of ecology and oceanography, will find this text an essential introduction to organic geochemistry. Petroleum geologists will also find it an invaluable source of information.

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## Key topics covered include:

- ▶ the global carbon cycle and related elemental cycles;
- ▶ evolution of life and its influence on the carbon cycle through Earth history;
- ▶ production and chemical composition of biogenic matter;
- ▶ degradation vs. preservation of sedimentary organic matter in various environments;
- ▶ biological and thermal alteration in sediment, soil and water column;
- ▶ molecular and isotopic stratigraphy;
- ▶ greenhouse gases and palaeoclimatic variation;
- ▶ man's influence on biogeochemical cycles and global climate change;
- ▶ factors affecting the behaviour of pollutants in the environment.

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