

Developments in Paleoenvironmental Research 17

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## I.W. Croudace, R.G. Rothwell (Eds.) Micro-XRF Studies of Sediment Cores

Applications of a non-destructive tool for the environmental sciences

Series: Developments in Paleoenvironmental Research, Vol. 17

- Features papers on the use of micro-XRF sediment core scanners in palaeoenvironmental research
- Presents a broad ranging view of instrument capability and points to future developments that will help contribute to higher precision elemental data and faster core analysis
- Broadens understanding of an increasingly used analytic technique that has revolutionised the capability to extract high-resolution palaeoenvironmental data from sediment archives

This volume presents papers on the use of micro-XRF core scanners in palaeoenvironmental research. It contains a broad ranging view of instrument capability and points to future developments that will help contribute to higher precision elemental data and faster core analysis. Readers will find a diverse range of research by leading experts that have used micro-XRF core scanners in a wide range of scientific applications. The book includes specific application papers reporting on the use of XRF core scanners in a variety of marine, lacustrine, and pollution studies. In addition, coverage also examines practical aspects of core scanner usage, data optimisation, and data calibration and interpretation.

In a little over a decade, micro-XRF sediment core scanners have made a substantive contribution to palaeoenvironmental research. Their impact is based on their ability to rapidly, non-destructively, and automatically scan sediment cores. Not only do they rapidly provide important proxy data without damaging samples, but they can obtain environmental data at decadal, annual, and even sub-annual scales. This volume will help both experienced and new users of these non-destructive core scanners take full advantage of one of the most powerful geochemical screening tools in the environmental scientist's toolbox.



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R. Guy Rothwell Editors

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