Presenting research from a wide range of scientists working on intertidal sediments – both mud flats and saltmarshes – this book is of importance to all environmental scientists.

The individual chapters explore the underlying biogeochemical processes controlling the behaviour of carbon, the nutrients nitrogen and phosphorus, and contaminants such as toxic organics, trace metals and artificial radionuclides in intertidal environments. The biogeochemistry of these environments is critical to understanding their ecology and management. All of the chapters include both a comprehensive review and the results of recent research. The authors are active researchers and the book brings together their different perspectives on this diverse and ecologically important environment.

This book is designed for researchers and managers working on intertidal environments, but it will also serve as a valuable senior undergraduate and graduate reference text in environmental chemistry, environmental science, earth science and oceanography.

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Biogeochemistry of intertidal sediments

Edited by

T.D. JICKELLS AND J.E. RAE

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Preface

This book arises from a meeting of the same name held at the Postgraduate Research Institute for Sedimentology, Reading, UK, in April 1994. The meeting was sponsored by the Challenger Society and the Geochemistry Group of the Mineralogical Society: we are grateful to both these organisations for their generous support. Eight scientists active in research on the biogeochemistry of intertidal systems were invited to present papers on their own particular interests within the field. We deliberately selected a mixture of established and young UK scientists and invited them to both briefly review the field and to present some new data from their own research. These papers have now been formalised into this book together with an overview chapter written by ourselves. The various authors have taken different approaches to the task we set them: some have achieved a balance between review and current research, whereas others have chosen to concentrate mainly on either review or recent research. As editors we have encouraged their diversity, allowing the authors the freedom to deal with the subject as they see best. We wish to thank all the authors for their good humour and hard work. All the chapters have been peer reviewed so we are additionally grateful to D. Cooper, A. Grant, J. Hamilton-Taylor, D. Hydes, S. Malcolm, R. Mortimer, J. Scudlark and S. Wakefield. (Chapter one was reviewed by the authors of the other book chapters.)

The work presented here demonstrates that despite the diversity of intertidal habitats there are common biogeochemical principles in operation. It is our hope that the book might enhance the appreciation and understanding of these complex and beautiful environments and that in so doing it might contribute to their preservation.

This book is University of Reading PRIS Contribution No 441.