

Cambridge University Press

978-0-521-69317-2 - The Cambridge Handbook of Earth Science Data

Paul Henderson and Gideon M. Henderson

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The Cambridge Handbook of Earth Science Data

This handbook presents an indispensable compilation of fundamental facts and figures about the Earth. It brings together reliable physical, chemical, biological and historical data in a series of 145 easy-to-read tables, supplemented by maps, charts and colour plates. Eleven chapters cover topics spanning the Earth's geosphere, hydrosphere, atmosphere and biosphere, with one chapter focusing on other bodies in the Solar System. Full references for the original data sources are provided to enable users to access further detail and, where relevant, contentious or alternative data are indicated in supplementary notes. The appendix provides practical information on units and conversion factors.

Compact and easy to use, this handy book provides a time-saving first point of reference for researchers, students and practitioners in the Earth and Environmental Sciences. It allows scientists easy access to basic information on topics outside their specialisation, and is also a convenient resource for non-scientists such as economists, policy makers and journalists.

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Preface

This book aims to be an accessible and convenient source for basic data in the Earth Sciences. It is not only for use by students but also for instructors, researchers and other professional geoscientists who want rapid access to core information across some of the many areas – biological to cosmological – that comprise the Earth Sciences today. It is not intended as an in-depth research tool within any one topic but more of a starting-off point and it should be seen as complementary to other sources such as course textbooks.

The scope and design of the book are as close to a pocket book as they reasonably can be, so as to enable use of the book in many circumstances – the teaching laboratory, the conference or lecture hall, the study room, while travelling and even perhaps in the field. SI units are used for the most part but on occasion other units that still tend to be in common use are quoted (conversions can be found in the Appendix). The selection of material has been made in order to fulfil the aims while at the same time keeping the size within reasonable bounds. There is an emphasis on ‘natural’ processes rather than anthropogenic influences; error analysis is not generally covered, and numerical data are given precedence over diagrammatic representation. Information on data sources is provided to help the user pursue a topic further. Inevitably such a selection will be something of an experiment, so we look forward to suggestions from users on how it might be changed and improved should, at a later date, another edition be considered. We also welcome our attention being drawn to any errors that may have crept in despite our attempts to avoid them.

I have compiled most of the contents, with Gideon focusing on Chapters 4 (Aqueous Earth) and 5 (Gaseous Earth) together with his overview of the isotopic tables of Chapter 8 as well as contributing diagrams with isotopic data in Chapter 7 (Earth history). We very much hope that users of this book will find their need for a one-stop and straightforward data source satisfied – a need we felt and which prompted us to produce this book.

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