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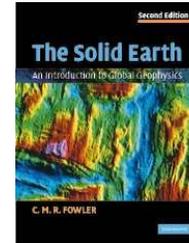
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The Solid Earth—An Introduction to Global Geophysics, by C.M.R. Fowler, 2004. Cambridge University Press, The Edinburgh Building, Cambridge, CB2 2RU, United Kingdom. Paperback, 685 + x pages, ISBN 9780521893077.



Writing textbooks requires a specialized skill. It is a challenge for many, but there are some who get even further and take care of an up-to-date version of an acclaimed textbook after years of rapid advancement in their field of expertise. Mary Fowler deserves major credit for taking such a task with joy and with encouragements for students, even though some students might find the required calculus too challenging and harsh. As designed for introductory geophysics courses, the second edition of the book encompasses a large number of exercises that help readers to get a better understanding of the presented geophysical models.

In order to reflect the latest advances in geophysical research, Professor Fowler has gone through a huge number of research publications, including the physics of the oceans and the interior of the earth. With a brief touch of the basics of the plate-tectonics theory, the geometry of plates is described smoothly without any unnecessary mathematical expressions. The reconstruction of plate motions is nicely followed. The seismology chapter covers all the principles of this technique as means for studying the Earth's interior. The chapters on gravity, geochronology, heat and Earth interior complete the list of the study areas in geophysics. The oceanic lithosphere and its various forms occupy more than 110 pages of the book, where the author provides an in-depth review of the latest developments of plate tectonics. I enjoyed reading the continental lithosphere chapter of the book, although the discussed plate-margin studies of the Middle East are not among the very latest findings of the region. This regards particularly the Makran plate margin in the Northern Indian Ocean. I also miss a special section dealing with the extensive studies on the application of geophysical principles in tectonics, namely tectonophysics. Such a section would, to my belief, have improved the interest of prospective research students. This is especially true for the tectonophysics of, for example, salt domes in all aspects of their theoretical and lab studies.

The 31 color plates and the appendices have nicely added to the value of the text and made it more suitable for the target readers.

To summarize, Mary Fowler's book is an outstanding work that I strongly recommend to each library, and that I advise each geology student to read. As picturesque, informative, and scientifically satisfying as the earlier version of the book, perhaps the main merit of this second edition is the accuracy of the plate-tectonics theory as a theory heavily based on accurate field observations and mathematical modeling. Geophysics is, after all, a rigorous scientific discipline, which—as the author puts it correctly—needs rigour, discipline and hard work to get the pleasure of understanding our planet.

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