

Earth as an Evolving Planetary System

Kent C. Condie

Earth as an Evolving Planetary System, Fourth Edition discusses key topics dealing with the evolution and interaction through time of Earth's crust, mantle, core, atmosphere, hydrosphere, and biosphere. It addresses the questions of why Earth is unique among planets of the solar system, and how the various subsystems in the planet have interacted over 4.6 billion years in the habitable planet that we live on. This new edition includes over 100 new pages of material, data, and images and is a key reference for students and researchers in Earth and planetary sciences.

Earth as an Evolving Planetary System, Fourth Edition includes new material that has become available since the third edition, including new sections on the Mid-lithosphere discontinuity, geoneutrinos, mantle oxidation, continental emergence, Earth cycles (new chapter) and recycling processes, the evolution of Earth from a stagnant lid to a plate tectonic regime, the controversy over how the continents have grown, when plate tectonics began, and exoplanets.

- Presents comprehensive coverage of the Earth's interacting systems through time
- Compares and contrasts Earth to other terrestrial planets with very different histories
- Includes a new and exciting chapter on Earth's cycles and their possible origins

About the Author

Kent C. Condie is emeritus professor of geochemistry at New Mexico Institute of Mining and Technology, Socorro, NM where he taught from 1970 to 2015. His textbook, *Plate Tectonics and Crustal Evolution*, was first published in 1976 and has gone through four editions. In addition, Condie has written seven other professional books the most recent of which, *Earth as an Evolving Planetary System* is now in the fourth edition. He is author or co-author of over 750 articles published in scientific journals. He was awarded NMT's Distinguished Research Award in 1987. In addition, he was elected the Vice President of the International Association for Gondwana Research in 2002 and in 2007 was bestowed an Honorary Doctorate Degree from the University of Pretoria in South Africa. He was awarded the Penrose Medal of the Geological Society of America in 2018.



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