

1. Record Nr.	UNINA9910451767203321
Autore	Ojima Minoru
Titolo	The Earth : its birth and growth / / Minoru Ozima, Jun Korenaga, Qing-zhu Yin [[electronic resource]]
Pubbl/distr/stampa	Cambridge : , : Cambridge University Press, , 2012
ISBN	1-107-22451-9 1-139-36545-2 1-280-64727-2 1-139-37797-3 9786613633323 1-139-37511-3 0-511-98037-X 1-139-37654-3 1-139-37112-6 1-139-37940-2
Edizione	[Second edition.]
Descrizione fisica	1 online resource (x, 150 pages) : digital, PDF file(s)
Disciplina	550
Soggetti	Earth (Planet)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Title from publisher's bibliographic system (viewed on 05 Oct 2015).
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Machine generated contents note: Preface to the second edition; Preface to the first edition; 1. Heat from within: energy supporting the dynamic Earth; 2. At the time of Earth's birth; 3. Formation of the layered structure of Earth; 4. Time scale of Earth's evolution; 5. Plate tectonics evolution; 6. Evolution of the mantle; 7. Origin of the atmosphere and oceans; 8. Isotopes as DNA of nature; 9. Earth's magnetism; 10. Moon: a looking glass to mirror the ancient Earth; 11. The past and future of the evolving Earth; References; Index.
Sommario/riassunto	A clear understanding of the Earth's past evolution can provide the key to its possible future development. The Earth: Its Birth and Growth explores the evolution of the Earth over 4.6 billion years using basic reasoning and simple illustrations to help explain the underlying physical and chemical principles and major processes involved. Fully

updated and revised, this rigorous but accessible second edition includes three completely new chapters. It incorporates exciting developments in isotope geology, placing results within a wider framework of Earth evolution and plate tectonics. Some background in physics and chemistry is assumed, but basic theories and processes are explained concisely in self-contained sections. Key research papers and review articles are fully referenced. This book is ideal as supplementary reading for undergraduate and graduate students in isotope geochemistry, geodynamics, plate tectonics and planetary science. It also provides an enjoyable overview of Earth's evolution for professional scientists and general readers.
