

1. Record Nr.	UNINA9910583366803321
Titolo	Earth's oldest rocks // edited by Martin J. Van Kranendonk, Vickie C. Bennett, J. Elis Hoffmann
Pubbl/distr/stampa	Amsterdam, Netherlands : , : Elsevier, , [2019] ©2019
ISBN	0-444-63902-0 0-444-63901-2
Edizione	[Second edition.]
Descrizione fisica	1 online resource (1,114 pages)
Disciplina	551.71
Soggetti	Geology, Stratigraphic - Precambrian Geodynamics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes indexes.
Nota di bibliografia	Includes bibliographical references and indexes.
Nota di contenuto	Getting started. Early solar system materials, processes, and chronology / Yuri Amelin -- Origin of the Earth and the late heavy bombardment / Marc Norman -- Early Earth atmosphere and oceans / James Kasting -- Overviews of early Earth processes. Modelling early Earth tectonics : the case for stagnant lid behaviour in early Earth / Craig O'Neill -- The earliest subcontinental lithospheric mantle / Bill Griffin -- Distribution and geochemistry of komatiites and basalts through the Archean / Stephen J. Barnes and Nick Arndt -- The formation of tonalites-trondjhemites-granodiorites and of the early continental crust / J. Elis Hoffmann, Zhang, JF Moyen, and Nagel -- Early Archean asteroid impacts on Earth : stratigraphic and isotopic age correlations and possible geodynamic consequences / Alexandra Krull Davatzes and Steven Goderis -- Palaeoarchean (3.6-3.2Ga) mineral systems in the context of continental crust building and the role of mantle plumes / Franco Pirajno and David L. Huston -- Origin of Palaeoarchean sulfate deposits / Pascal Philippot -- The most ancient remnants. Earth's oldest rocks and minerals / Kent Condie -- The oldest terrestrial mineral record : thirty years of research on Hadean zircon from Jack Hills, Western Australia / Aaron J. Cavosie -- Evidence of Hadean to Palaeoarchean crust in the Youanmi and Southwest terranes, and Eastern Goldfields Superterrane of the Yilgarn Craton,

Western Australia / Stephen Wyche, Yongjun Lu and Michael T.D. Wingate -- Hadean to Paleoproterozoic rocks and zircons in China / Yusheng Wan, Liu D, Xie H, Alfred Kroner, Wilde Alexander Simon, Dong Chunyan, Shoujie Liu, Shiwen Xie and Mingzhu Ma -- The Acasta Gneiss Complex / Jesse R. Reimink -- The Nuvvuagittuq greenstone belt : a glimpse of Earth's earliest crust / Jonathan O'Neil -- The 3.9-3.6 Ga Itsaq Gneiss Complex of Greenland : quasi-uniformitarian geodynamics towards the end of Earth's first billion years / Allen Nutman -- The Narryer Terrane, Yilgarn Craton, Western Australia : review and recent developments / Tony Ivan Kemp -- Well-preserved granitoid-greenstone terrains. Paleoproterozoic development of a continental nucleus: the East Pilbara Terrane of the Pilbara Craton, Western Australia / Martin Julian Van Kranendonk, R. Hugh Smithies and David C. Champion -- The oldest well-preserved felsic volcanic rocks on Earth: Geochemical clues to the early evolution of the Pilbara Supergroup and implications for the growth of a Paleoproterozoic protocontinent / R. Hugh Smithies and Martin Julian Van Kranendonk -- Geochemistry of Paleoproterozoic granites of the East Pilbara Terrane, Pilbara Craton, Western Australia : implications for early Archean crustal growth / David C. Champion -- Palaeoproterozoic mineral deposits of the Pilbara Craton : genesis, tectonic environment and comparisons with younger deposits / David L. Huston and Franco Pirajno -- Early Archean crustal evolution in southern Africa : an updated record of the Ancient Gneiss Complex of Swaziland / J. Elis Hoffmann and Alfred Kroner -- Geology of the Barberton Greenstone Belt : a unique record of crustal development, surface processes, and early life 3.55 to 3.2 Ga / Gary R. Byerly, Donald R. Lowe and Christoph Heubeck -- TTG plutons of the Barberton granitoid-greenstone terrain, southern Africa / JF Moyen -- Tectono-metamorphic controls on Archean gold mineralisation in the Barberton Greenstone Belt, South Africa : an example from the New Consort gold mine / Annika Dziggel -- Filling the gaps. Paleoproterozoic gneisses in the Minnesota River Valley and northern Michigan, USA / Marion Bickford -- The Assean Lake Complex: Ancient crust at the northwestern margin of the Superior Craton, Manitoba, Canada / Christian O. Bohm -- Oldest rocks of the Wyoming Craton / Kevin R. Chamberlain and Paul A. Mueller -- Early crustal evolution as recorded in the granitoids of the Singhbhum and western Dharwar cratons, India / Sukanta Dey -- Palaeoproterozoic crustal evolution of the Bundelkhand Craton, north-central India / Lopamundra Saha -- Paleoproterozoic rocks in the Fennoscandian Shield / Pentti Sakari Holttä -- Archean crustal evolution in the Ukrainian shield / Stefan Claesson, Gennadiy Artemenko, Svetlana Bogdanova and Leonid Shumlyanskyy / The Palaeoproterozoic record of the Zimbabwe Craton / Axel Hofmann -- Ancient Antarctica : the Archean of the East Antarctic Shield / Simon Harley -- Life. Implications of carbonate and chert isotope records for the early Earth / Graham A. Shields -- Archean cherts : formation processes and paleo-environments / Morgane Marine Ledevin -- The significance of carbonaceous matter to understanding life processes on early Earth / Mark Adriaan Van Zuilen -- Eoarchean Life from the Isua supracrustal belt (Greenland) / Allen Nutman -- Depositional setting of the fossiliferous, c. 3480 Ma Dresser Formation, Pilbara Craton : a review / Martin Julian Van Kranendonk -- Early Archean (pre-3.0 Ga) cellularly-preserved microfossils and microfossil-like structures from the Pilbara Craton, Western Australia : a review / Kenichiro Sugitani -- Traces of early Life from the Barberton Greenstone Belt, South Africa / Keyron Hickman-Lewis, Frances Westall and Barbara Cavalazzi.

source for geological research of early Earth. This new edition is an up-to-date collection of scientific articles on all aspects of the early history of the Earth, from planetary accretion at 4.567 billion years ago (Ga), to the onset of modern-style plate tectonics at 3.2 Ga. Since the first edition was published, significant new advances have been made in our understanding of events and processes on early Earth that correspond with new advances in technology. The book includes contributions from over 100 authors, all of whom are experts in their respective fields. The research in this reference concentrates on what is directly gleaned from the existing rock record to understand how our planet formed and evolved during the planetary accretion phase, formation of the first crust, the changing dynamics of the mantle and style of tectonics, life's foothold and early development, and mineral deposits. It is an ideal resource for academics, students and the general public alike"--
