Record Nr. UNINA9910457527003321 Autore Artemeva I. M (Irina Mikhailovna), <1961-> **Titolo** Lithosphere: an interdisciplinary approach / / Irina M. Artemieva [[electronic resource]] Cambridge: ,: Cambridge University Press, , 2011 Pubbl/distr/stampa **ISBN** 1-139-17952-7 1-107-22566-3 1-283-38387-X 1-139-18916-6 9786613383877 1-139-18788-0 1-139-19047-4 1-139-18325-7 1-139-18557-8 0-511-97541-4 Descrizione fisica 1 online resource (xix, 773 pages): digital, PDF file(s) Disciplina 551 Soggetti Lithosphere Geodynamics Earth (Planet) Crust Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Title from publisher's bibliographic system (viewed on 05 Oct 2015). Note generali Nota di bibliografia Includes bibliographical references and indexes. Nota di contenuto What is the lithosphere? -- Age of the lithosphere -- Seismic structure of the lithosphere -- Thermal regime of the lithosphere from heat flow data -- Thermal state of the lithosphere from non-thermal data -- CBL and lithospheric density from petrologic and geophysical data --Electrical structure of the lithosphere -- Flexure and rheology --Evolution of the lithosphere -- Summary of lithospheric properties. Presenting a coherent synthesis of lithosphere studies, this book covers Sommario/riassunto a range of geophysical methods (seismic reflection, refraction, and receiver function methods; elastic and anelastic seismic tomography; electromagnetic and magnetotelluric methods; thermal, gravity and

rheological models), complemented by petrologic and laboratory data

on rock properties. It also provides a critical discussion of the uncertainties, assumptions, and resolution issues that are inherent in the different methods and models of the lithosphere. Multidisciplinary in scope, global in geographical extent, and covering a wide variety of tectonics settings across 3.5 billion years of Earth history, this book presents a comprehensive overview of lithospheric structure and evolution. It is a core reference for researchers and advanced students in geophysics, geodynamics, tectonics, petrology, and geochemistry, and for petroleum and mining industry professionals.