

1. Record Nr.	UNINA9910555138703321
Titolo	Lithospheric discontinuities / / Huaiyu Yuan, Barbara Romanowicz, editors
Pubbl/distr/stampa	Hoboken, New Jersey : , : Wiley, , 2019
ISBN	1-119-24972-4 1-119-24973-2 1-119-24974-0
Descrizione fisica	1 online resource (ix, 208 pages, 16 unnumbered of plates) : illustrations
Collana	Geophysical monograph ; ; 239
Disciplina	551
Soggetti	Lithosphere
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Intro -- Title Page -- Copyright Page -- Contents -- Contributors -- Preface -- Introduction-Lithospheric Discontinuities -- REFERENCES -- Chapter 1 On the Origin of the Upper Mantle Seismic Discontinuities -- 1.1. INTRODUCTION -- 1.2. SEISMOLOGICAL OBSERVATIONS RELEVANT TO THE LAB AND THE MLD -- 1.2.1. General Introduction: Long Wavelength Versus Short Wavelength Seismology -- 1.2.2. Some Examples: Isotropic Velocity-Depth Models -- 1.2.3. Anisotropy -- 1.2.4. Attenuation -- 1.3. GEOLOGICAL/PETROLOGICAL OBSERVATIONS RELEVANT TO THE LAB AND MLD -- 1.3.1. The LAB in the Oceanic Upper Mantle -- 1.3.2. Composition and Evolution of the Continental Lithosphere -- 1.4. MODELS FOR THE LAB AND THE MLD -- 1.4.1. Partial Melting -- 1.4.2. Chemical/Mineralogical Layering -- 1.4.3. Layering in Anisotropy -- 1.4.4. Temperature Effects -- 1.4.5. Temperature and Water Effects -- 1.5. ELASTICALLY ACCOMMODATED GRAINBOUNDARY SLIDING MODEL -- 1.5.1. Deformation of a Polycrystalline Material: the Role of Grain Boundary Sliding -- 1.5.2. Experimental Observations on Anelasticity Including EAGBS -- 1.6. DISCUSSION -- 1.6.1. Partial Melt Model Versus Subsolidus Models for the LAB -- 1.6.2. The FrozenMelt Model for the MLD -- 1.6.3. Layered Anisotropy Model for the MLD and the LAB -- 1.6.4. EAGBS Model for the MLD and the LAB -- 1.7.

SUMMARY AND FUTURE DIRECTIONS -- ACKNOWLEDGMENTS -- REFERENCES -- Chapter 2 The Evolution of the Oceanic Lithosphere: An Electromagnetic Perspective -- 2.1. INTRODUCTION -- 2.2. LITHOSPHERE-ASTHENOSPHERE BOUNDARY -- 2.3. ELECTRICAL CONDUCTIVITY OF THE MANTLE -- 2.3.1. Water -- 2.3.2. Melts -- 2.3.3. Electrical Anisotropy -- 2.4. OCEANIC LITHOSPHERE -- 2.4.1. Formation at MidOcean Ridges -- 2.4.2. Lithospheric Evolution -- 2.4.3. Melt at the LAB? -- 2.4.4. Melt in the Asthenosphere -- 2.5. GAPS IN KNOWLEDGE -- 2.6. SUMMARY.

ACKNOWLEDGMENTS -- REFERENCES -- Chapter 3 Lithospheric and Asthenospheric Structure Below Oceans from Anisotropic Tomography -- 3.1. INTRODUCTION -- 3.2. ANISOTROPY TOMOGRAPHY FROM SURFACEWAVE DATA -- 3.3. AZIMUTHAL ANISOTROPY AND PLATE MOTION -- 3.4. GEODYNAMIC CONSEQUENCES --

ACKNOWLEDGMENTS -- REFERENCES -- Chapter 4 Seismic Imaging of the Base of the Ocean Plates -- 4.1. INTRODUCTION -- 4.2. ISOTROPY METHODS -- 4.2.1. Surface Waves -- 4.2.2. Teleseismic PtoS and Sto P Converted Phases -- 4.2.3. Teleseismic Reflections -- 4.2.4. Active Source Reflections -- 4.3. ANISOTROPY METHODS -- 4.3.1. SKS -- 4.3.2. Surface Waves -- 4.3.3. Active Sources -- 4.4. DISCUSSION -- 4.5. CONCLUSIONS -- ACKNOWLEDGMENTS -- REFERENCES -- Chapter 5 Electrical Discontinuities in the Continental Lithosphere Imaged with Magnetotellurics -- 5.1. INTRODUCTION -- 5.2. EXPERIMENTAL CONDUCTIVITIES OF TYPICAL LITHOSPHERIC MINERALS -- 5.2.1. The Crust -- 5.2.2. The Mantle -- 5.2.3. The Lithosphere -- 5.3. OBSERVED DISCONTINUITIES IN ELECTRICAL CONDUCTIVITY IN THE CONTINENTAL LITHOSPHERE -- 5.3.1. HighAmplitude Discontinuities in the Lower Crust and Upper Mantle -- 5.3.2. LargeVolume Mantle Conductors -- 5.3.3. Discontinuities Associated with Faults and Shear Zones -- 5.3.4. Lateral Conductivity Discontinuities -- 5.4. COMPARISON WITH SEISMIC DISCONTINUITIES -- 5.4.1. The Moho -- 5.4.2. The Midlithosphere Discontinuity -- 5.5. DISCUSSION AND CONCLUSIONS -- ACKNOWLEDGMENTS -- REFERENCES -- Chapter 6 A Lithosphere-Asthenosphere Boundary-a Global Model Derived from Multimode SurfaceWave Tomography and Petrology -- 6.1. INTRODUCTION -- 6.2. UPPER MANTLE SHEARWAVESPEED MODEL -- 6.3. RELATIONSHIP BETWEEN VS TEMPERATURE AND COMPOSITION -- 6.4. A GLOBAL LITHOSPHERIC MODEL -- 6.5. IMPLICATIONS OF THE LITHOSPHERIC MODEL -- ACKNOWLEDGMENTS -- REFERENCES.

Chapter 7 Frayed Edges of Cratonic Mantle Keels: Thermal Diffusion Timescales and Their Predicted Imprint on MantleVelocity Structure -- 7.1. INTRODUCTION -- 7.2. METHODS -- 7.2.1. Thermal Modeling -- 7.2.2. Velocity and Density Calculations -- 7.2.3. SurfaceWave Tomography Tests -- 7.2.4. BodyWave Arrival Time Residuals -- 7.3. RESULTS -- 7.4. DISCUSSION -- 7.5. CONCLUSIONS -- ACKNOWLEDGMENTS -- REFERENCES -- Chapter 8 Perspectives of the SReceiverFunction Method to Image Upper Mantle Discontinuities -- 8.1. INTRODUCTION -- 8.2. OBSERVATIONS OF LITHOSPHERE-ASTHENOSPHERE BOUNDARY AND MIDLITHOSPHERIC DISCONTINUITY -- 8.3. SRECEIVERFUNCTION METHOD -- 8.3.1. Rotation of Components -- 8.3.2. Deconvolution -- 8.3.3. Moveout Correction and Migration -- 8.3.4. Advantages and Limitations -- 8.4. SRECEIVER FUNCTIONS FROM LARGE DATA SETS -- 8.4.1. General Aspects of SReceiver Functions -- 8.4.2. SReceiverFunction Profiles in Central Europe -- 8.4.3. SReceiverFunction Profiles in North America -- 8.5. DISCUSSION AND CONCLUSIONS -- ACKNOWLEDGMENT -- REFERENCES -- Chapter 9 Continental Lithospheric Layering Beneath Stable, Modified, and Destroyed Cratons

from Seismic Daylight Imaging -- 9.1. INTRODUCTION -- 9.1.1. Lithosphere-Asthenosphere Transition -- 9.1.2. Midlithospheric Discontinuity -- 9.1.3. Tools for Imaging Lithospheric Discontinuities -- 9.2. GEOLOGIC SETTINGS -- 9.2.1. West Australian Craton -- 9.2.2. North China Craton -- 9.3. SEISMIC DAYLIGHT IMAGING -- 9.3.1. Principle of SDI -- 9.3.2. Data Processing -- 9.3.3. Synthetic Examples -- 9.4. DATA -- 9.4.1. WAC -- 9.4.2. NCC -- 9.5. RESULTS -- 9.5.1. Two Typical Styles of SDI Images -- 9.5.2. NCC -- 9.5.3. WAC -- 9.6. DISCUSSION -- 9.6.1. Understanding Autocorrelograms -- 9.6.2. MLD in NCC -- 9.6.3. MLD in the West Australian Craton -- 9.6.4. Reconciliation of Various Seismic Properties. 9.6.5. Tectonic implications of MLD -- 9.7. CONCLUDING REMARKS -- ACKNOWLEDGMENTS -- REFERENCES -- Chapter 10 Cratonic Lithosphere Discontinuities: Dynamics of Small Volume Melting, Metacratonization, and a Possible Role for Brines -- 10.1. INTRODUCTION -- 10.2. STATE OF THE ART -- 10.2.1. The Framework: Formation, Modification, and Destruction of Cratons -- 10.2.2. Geophysical and Petrological Approaches to Constraining Lithosphere Structure -- 10.2.3. Inherited Versus Imposed Cratonic Lithosphere Discontinuities -- 10.3. DISCUSSION -- 10.3.1. LADs and Melt Generation Beneath Cratonic Lithosphere-Asthenosphere Boundaries -- 10.3.2. High Pressure Origin of Cratonic Nuclei and the Interpretation of MLDs Within a Plate Tectonic Framework -- 10.3.3. MLDs and Melt Extraction Through Cratonic Lithospheres -- 10.4. SUMMARY AND OUTLOOK -- ACKNOWLEDGMENTS -- REFERENCES -- Index -- Supplemental Images -- EULA.

2. Record Nr.	UNISALENTO991000541639707536
Autore	Pieper, Josef
Titolo	Sulla prudenza / Josef Pieper
Pubbl/distr/stampa	Brescia : Morcelliana, 1965
Edizione	[2. ed. riveduta]
Descrizione fisica	74 p. ; 19 cm.
Collana	Il pellicano
Altri autori (Persone)	Pezzuto, G.
Disciplina	241
Soggetti	Prudenza
Lingua di pubblicazione	Italiano
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Trad. G. Pezzuto Tit. orig.: Traktat uber die Klugheit