146 2096

Doc. 239

Geophysical Research Abstracts, Volume 2, 2000

SE18.Seismic and seismological probing of the upper

Please, click the titles of the contributions of interest to find the corresponding abstracts.

ABRAMOVITZ, T.; THYBO, H.; PERCHUC, E.
The 8 degree discontinuity observed in FENNOLORA P and S wave data

BARRUOL, G.; GRANET, M. DOREL, J.
Upper mantle anisotropy beneath the southern Massif Central (France)

BROWN, L.
A reflection approach to mantle anisotropy

BUSHENKOVA, N., KOULAKOV, I., TYCKOV, S.
Investigation of the upper mantle in southern Siberia using the RR-R scheme

DE FRANCO, R.; CAIELLI, G.; TONDI, R.; BARZAGHI, R.; BIELLA, G.; TOMOVES GROUP
Deep structures in the Vesuvius area (Italy)

DRICKER, I.G.; ROECKER, S.W.
Upper mantle shear velocity structure in the Tibetan Plateau and surroundings revealed by SS-S travel time residuals

EGORKIN, A.
Upper mantle heterogeneities

ERGESHEV, T.; NURTAEV, B.S.
Some results of deep seismic sounding of litosphere of Tien Shan, Pamir, Hyndukush, Karakorm an Hymalaya

GEYKO, V.; TSVETKOVA, T.; LIVANOVA, L. SANNIKOVA, N.; GEYKO, K.
A mapping tectonics into the continental and oceanic mantle structure

GRANET, M.; BARRUOL, G.; ACHAUER, U.; DOREL, J.
Tracking the mantle plume in the southern Massif Central

HEINTZ, M.; VAUCHEZ, A.; ASSUMPCAO, M.; EGYDIO-SILVA, M.; BARRUOL, G.; TOMMASI, A.
Seismic anisotropy and mantle tectonics around the southern termination of the Sao

SEISMIC ANISOTROPY AND MANTLE TECTONICS AROUND THE SOUTHERN TERMINATION OF THE SÃO FRANCISCO CRATON, SE BRAZIL

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Preliminaryshearwavesplittingmeasurementshavebeenperformedinsoutheastern Brazil around the southern termination of the São Francisco craton using data recorded by 10 portable 3-components seismic stations and the Geoscope *SPB* station. Splitting parameters are compared to large-scale tectonic structures of the area in an attempt to infer to which extent deformation in the upper mantle and the crust is mechanically coupled. This comparison highlights the good correlation between the orientation of the fast split shear wave polarization plane (ϕ) and the orogenic grain in the belts that surround the southern tip of the craton. In the NW-trending southern Brasilia belt, ϕ trends NW. This belt is intersected southward by the slightly younger, NE-trending, wrench-faulting dominated, Ribeira belt where ϕ trends ENE to NE. Northward, along the western side of the craton, the Ribeira belt curves to almost N-S and the tectonic regime changes from orogen-parallel wrench-faulting to orogen-transverse, westward thrusting. Accordingly, ϕ shifts fromNNEtoWNW,i.e.,fromparalleltoperpendiculartothestructuraltrendofthe belt.Theseobservations pointtoacostructurationofthemantleandthecrust.