

References

- Ajaji, T., D. Weis, A. Giret, and M. Bouabdellah, 1998. Coeval potassic and sodic calc-alkaline series in the post-collisional Hercynian Tanncherfi intrusive complex, northeastern Morocco: Geochemical, isotopic and geochronological evidence: *Lithos*, v. 45, p. 371--393.
- Barruol, G., P. G. Silver, and A. Vauchez, 1997. Seismic anisotropy in the Eastern United States; deep structure of a complex continental plate: *J. Geophys. Res.*, v. 102, p. 8329--8348.
- Calvert A., E. Sandvol, D. Seber, M. Barazangi, S. Roecker, T. Mourabit, F. Vidal, G. Alguacil, N. Jabour, Geodynamic evolution of the lithosphere and upper mantle beneath the Alboran region of the western Mediterranean; constraints from travel time tomography. *Journal of Geophysical Research*, 105; 5, 10871-10898. 2000.
- Chalot-Prat, F., 1995. Genesis of rhyolitic ignimbrites and lavas from distinct sources at a deep crustal level: Field, petrographic, chemical and isotopic (Sr, Nd) constraints in the Tazekka volcanic complex (Eastern Morocco): *Lithos*, v. 36, p. 29--49.
- Carmichael, D. M., 1978. Metamorphic bathozones and bathograds: A measure of the depth of post-metamorphic uplift and erosion on the regional scale: *Amer. J. Sci.*, v. 278, p. 769--797.
- Conrad, C. P., and P. Molnar, 1997. The growth of Rayleigh-Taylor-type instabilities in the lithosphere for various rheological and density structures: *Geophys. J. Int.*, v. 129, p. 95--112.
- Fouch, M. J., K. M. Fischer, E. M. Parmentier, M. E. Wyssession, and T. J. Clarke, 1999. Shear wave splitting, continental keels, and patterns of mantle flow: *J. Geophys. Res.* 105; 3, Pages 6255-6275. 2000
- Gasquet, D., J. Leterrier, Z. Mrini, and P. Vidal, 1992. Petrogenesis of the Hercynian Tichka plutonic complex (Western High Atlas, Morocco): Trace element and Rb-Sr and Sm-Nd isotopic constraints: *Earth Plan. Sci. Letts.*, v. 108, p. 29--44.
- Getty, S. R., and L. P. Gromet, 1992. Geochronological constraints on ductile deformation, crustal extension and doming about a basement-cover boundary, New England Appalachians: *Amer. J. Sci.*, v. 292, 359--397.
- Gripp, A. E., and R. G. Gordon, 1990. Current plate velocities relative to the hotspots incorporating the NUVEL-1 global plate motion model: *Geophys. Res. Letts.*, v. 17, p. 1109--1112.
- Houseman G. A, D. P. McKenzie and P. Molnar, Convective instability of a thickened boundary layer and its relevance for the thermal evolution of continental convergent belts, *JGR*. 86 p. 6115-6132. 1981.
- Hannula, K. A., R. A. Coish, and G. S. Applegate, 1998. Geochemistry and Ar cooling ages of the syn-Acadian Victory Pluton, northeastern Vermont, USA (abstract): *GSA Abstracts with Programs*, v. 30, p. 240.
- Kim, W.Y., Modelling short-period crustal phases at regional distances for the seismic source parameter inversion, *Physics of the Earth and Planetary Interiors* 47, 159-178, 1987.
- Levin, V., and J. Park, Crustal anisotropy beneath the Ural mountains foredeep from teleseismic receiver functions, *Geophys. Res. Letts*, 24, 1283-1286, 1997.

- Levin, V., and J. Park, P-SH conversions in a flat-layered medium with anisotropy of arbitrary orientation, *Geophys. J. Int.*, 131, 253–266, 1997b.
- Levin, V., and J. Park, A P-SH conversion in layered media with hexagonally symmetric anisotropy: A cookbook, *Pure Appl. Geophys.*, 151, 669–697, 1998a.
- Levin V. and J. Park, Shear zones in the Proterozoic lithosphere of the Arabian Shield and the nature of the Hales discontinuity, *Tectonophysics*, 323, 131–148, 2000a.
- Levin, V., J. Park, M. Brandon and W. Menke, Thinning of the upper mantle during the late Paleozoic Appalachian orogenesis, *Geology* 28, 239–242, 2000a.
- Levin, V., W. Menke, and J. Park, Shear wave splitting in the Appalachians and the Urals: A case for multilayered anisotropy, *J. Geophys. Res.* 104, 17975–17987, 1999.
- Levin, V., W. Menke & J. Park, No regional anisotropic domains in the northerneastern U.S. Appalachians *J. Geophys. Res.* Vol. 105 , No. B8 , p. 19,029, 2000b.
- Le Pichon, X., J.-C. Sibuet and J. Francheteau, the fit of the continents around the North Atlantic Ocean, *tectonophysics*, 38, 169–209, 1977.
- Lux, D. R., and C. V. Guidotti, 1985. Evidence for extensive Hercynian metamorphism in western Maine: *Geology*, v. 13, p. 696–700.
- Meissner, R., and W. Mooney, 1998. Weakness of the lower continental crust: A condition for delamination, uplift and escape: *Tectonophysics*, v. 296, p. 47–60.
- Menke and Levin, Anomalous seaward dip of the lithosphere–asthenosphere boundary beneath northeastern US detected using differential–array measurements of Rayleigh waves , submitted to *GJI*.
- Park, J., and V. Levin, 2000. Receiver functions from multiple–taper spectral correlation estimates, *BSSA*, 90, pp1507–1520, 2000.
- Pysklywec R., C. Beaumont and P. Fullsack, Modeling the behavior of the continental mantle lithosphere during plate convergence, *Geology*, 28, pp. 655–658, 2000.
- Ramdani, F., Geodynamic implications of intermediate–depth earthquakes and volcanism in the intraplate Atlas mountains (Morocco), *PEPI*, 108, 245–260, 1998.
- Ribe, N. M., 1992. On the relation between seismic anisotropy and finite strain: *J. Geophys. Res.*, v. 97, p. 8737–8747.
- Schott, B., and H. Schmeling, 1998. Delamination and detachment of a lithospheric root: *Tectonophysics*, v. 296, p. 225–247.
- Seber D., M. Barazangi, A. Ibenbrahim A. and A. Demnati, Geophysical evidence for lithospheric delamination beneath the Alboran Sea and Rif–Betic mountains, *Nature*, 379, 785–790, 1996.
- Sevigny, J. H., and G. N. Hanson, 1993. Orogenic evolution of the New England Appalachians of southwestern Connecticut: *GSA Bull.*, v. 105, p. 1591–1605.

Van der Lee, S, and G Nolet, Upper mantle S velocity structure of North America, *J. Geophys. Res.*, 102, 22815–22838, 1997.

Wiebe, R. A., D. Smith, M. Sturm, E. M. King, and M. S. Seckler, 1997. Enclaves in the Cadillac Mountain granite (coastal Maine): Samples of hybrid magma from the base of the chamber: *J. Petrol.*, v. 38, p. 393–423.

Zartman, R. E., O. D. Hermes, and M. H. Pease, 1988. Zircon crystallization ages, and subsequent isotopic disturbance events, in gneissic rocks of eastern Connecticut and western Rhode Island: *Amer. J. Sci.*, v. 288, p. 376–402.

Zartman, R. E., 1988. Three decades of geochronological studies in the New England Appalachians: *GSA Bull.*, v. 100, p. 1168–1180.

Zeck, H. P., Betic–Rif orogeny: subduction of Mesozoic Tethys lithosphere under eastward drifting Iberia, slab detachment shortly before 22 Ma, and subsequent uplift and extensional tectonics, *Tectonophysics*, 254, 1–16, 1996.

Zhang, S., and S. Karato, 1995. Lattice preferred orientation of olivine aggregates deformed in simple shear: *Nature*, v. 375, p. 774–777.