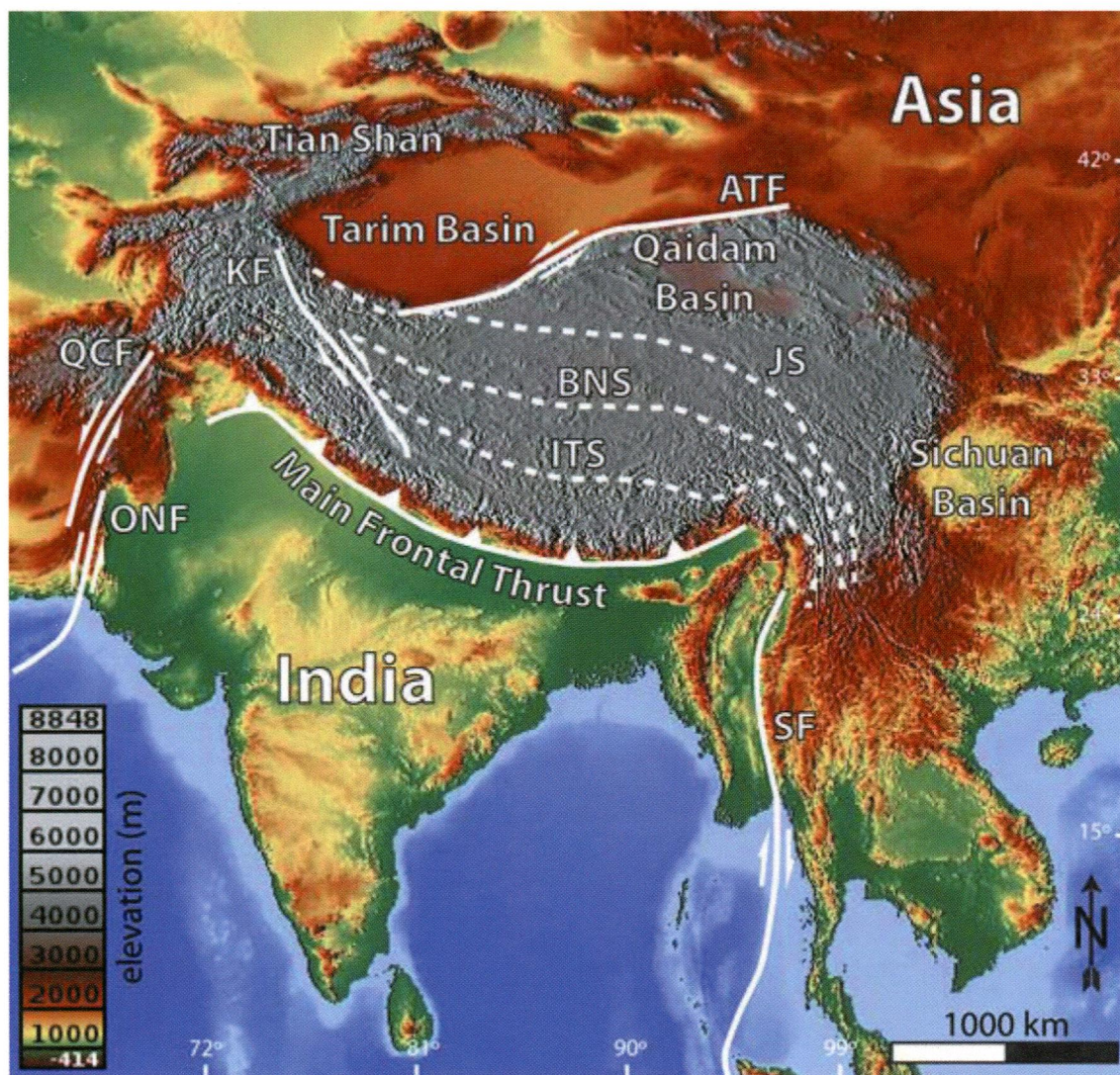


ρ_M
180/gm



Journal of Geophysical Research Solid Earth

Volume 119 Number 1 January 2014
JGREA2(1) 1–766 (2014)
ISSN 2169-9313 (print); ISSN 2169-9356 (Online)

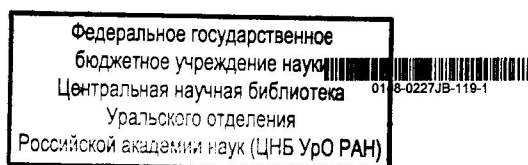
The online article is the official version and may contain additional content not available in this print issue. To access the full article, including multimedia, enhanced figures, supporting information, and other nonprinted content, go to <http://wileyonlinelibrary.com/journal/jgrb>.

Geomagnetism and Paleomagnetism/Marine Geology and Geophysics

- 1 *Daniel H. Eakin, Kirk D. McIntosh, H. J. A. Van Avendonk, Luc Lavier, Ryan Lester, Char-Shine Liu, and Chao-Shing Lee*
Crustal-scale seismic profiles across the Manila subduction zone: The transition from intraoceanic subduction to incipient collision (doi 10.1002/2013JB010395)
- 18 *Edward W. Bolton and Abbas Firoozabadi*
Numerical modeling of temperature and species distributions in hydrocarbon reservoirs (doi 10.1002/2013JB010043)
- 32 *Hélène Carton, Satish C. Singh, Nugroho D. Hananto, James Martin, Yusuf S. Djajadihardja, Udrek, Dieter Franke, and Christoph Gaedicke*
Deep seismic reflection images of the Wharton Basin oceanic crust and uppermost mantle offshore Northern Sumatra: Relation with active and past deformation (doi 10.1002/2013JB010291)
- 52 *M. Prada, V. Sallares, C. R. Ranero, M. G. Vendrell, I. Grevemeyer, N. Zitellini, and R. de Franco*
Seismic structure of the Central Tyrrhenian basin: Geophysical constraints on the nature of the main crustal domains (doi 10.1002/2013JB010527)
- 71 *Prasanta K. Patro, S. V. S. Sarma, and K. Naganjaneyulu*
Three-dimensional lithospheric electrical structure of Southern Granulite Terrain, India and its tectonic implications (doi 10.1002/2013JB010430)
- 83 *Á. Ruiz Martínez, D. Roubinet, and D. M. Tartakovsky*
Analytical models of heat conduction in fractured rocks (doi 10.1002/2012JB010016)
- 99 *Hong-lin Li, Tao He, and George D. Spence*
North Cascadia heat flux and fluid flow from gas hydrates: Modeling 3-D topographic effects (doi 10.1002/2013JB010101)
- 116 *Jaewon Jang and J. Carlos Santamarina*
Evolution of gas saturation and relative permeability during gas production from hydrate-bearing sediments: Gas invasion vs. gas nucleation (doi 10.1002/2013JB010480)
- 127 *Sara Martínez-Loriente, Valentí Sallarès, Eulàlia Gràcia, Rafael Bartolome, Juan José Dañoibeitia, and Nevio Zitellini*
Seismic and gravity constraints on the nature of the basement in the Africa-Eurasia plate boundary: New insights for the geodynamic evolution of the SW Iberian margin (doi 10.1002/2013JB010476)
- 150 *Luolei Zhang, Hisashi Utada, Hisayoshi Shimizu, Kiyoshi Baba, and Takuto Maeda*
Three-dimensional simulation of the electromagnetic fields induced by the 2011 Tohoku tsunami (doi 10.1002/2013JB010264)
- 169 *Jensen Jacob, Jérôme Dyment, and V. Yatheesh*
Revisiting the structure, age, and evolution of the Wharton Basin to better understand subduction under Indonesia (doi 10.1002/2013JB010285)

Chemistry and Physics of Minerals and Rocks/Volcanology

- 191 *Weijian Zhou, Feng Xian, Yajuan Du, Xianghui Kong, and Zhenkun Wu*
The last 130 ka precipitation reconstruction from Chinese loess ¹⁰Be (doi 10.1002/2013JB010296)



- 198** *Koki Aizawa, Takao Koyama, Hideaki Hase, Makoto Uyeshima, Wataru Kanda, Mitsuru Utsugi, Ryokei Yoshimura, Yusuke Yamaya, Takeshi Hashimoto, Ken'ichi Yamazaki, Shintaro Komatsu, Atsushi Watanabe, Koji Miyakawa, and Yasuo Ogawa*
Three-dimensional resistivity structure and magma plumbing system of the Kirishima Volcanoes as inferred from broadband magnetotelluric data (doi 10.1002/2013JB010682)
- 216** *C. Huber, Y. Su, C. T. Nguyen, A. Parmigiani, H. M. Gonnermann, and J. Dufek*
A new bubble dynamics model to study bubble growth, deformation, and coalescence (doi 10.1002/2013JB010419)
- 240** *Hiroki Ichikawa, Taku Tsuchiya, and Yoshinori Tange*
The *P-V-T* equation of state and thermodynamic properties of liquid iron (doi 10.1002/2013JB010732)
- 253** *Yu Nishihara, Tomohiro Ohuchi, Takaaki Kawazoe, Dirk Spengler, Miki Tasaka, Takumi Kikegawa, Akio Suzuki, and Eiji Ohtani*
Rheology of fine-grained forsterite aggregate at deep upper mantle conditions (doi 10.1002/2013JB010473)
- 274** *Marie Chaput, Vincent Famin, and Laurent Michon*
Deformation of basaltic shield volcanoes under cointrusive stress permutations (doi 10.1002/2013JB010623)
- 302** *M. Li, W.-L. Xiao, Y. Bernabé, and J.-Z. Zhao*
Nonlinear effective pressure law for permeability (doi 10.1002/2013JB010485)
- 319** *L. Gurioli, L. Colo', A. J. Bollasina, A. J. L. Harris, A. Whittington, and M. Ripepe*
Dynamics of Strombolian explosions: Inferences from field and laboratory studies of erupted bombs from Stromboli volcano (doi 10.1002/2013JB010355)
- 346** *Juliette Malgrange and Tom Gleeson*
Shallow, old, and hydrologically insignificant fault zones in the Appalachian orogen (doi 10.1002/2013JB010351)
- 360** *Steven W. Denyszyn and Henry C. Halls*
Comment on "A new model for the Paleogene motion of Greenland relative to North America: Plate reconstructions of the Davis Strait and Nares Strait regions between Canada and Greenland" by G. N. Oakey and J. A. Chalmers (doi 10.1002/2013JB010323)

Seismology

- 364** *Naofumi Aso and Satoshi Ide*
Focal mechanisms of deep low-frequency earthquakes in Eastern Shimane in Western Japan (doi 10.1002/2013JB010681)
- 378** *J. Chaput, R. C. Aster, A. Huerta, X. Sun, A. Lloyd, D. Wiens, A. Nyblade, S. Anandakrishnan, J. P. Winberry, and T. Wilson*
The crustal thickness of West Antarctica (doi 10.1002/2013JB010642)
- 396** *M. Pischituta, M. Pastori, L. Improta, F. Salvini, and A. Rovelli*
Orthogonal relation between wavefield polarization and fast *S* wave direction in the Val d'Agri region: An integrating method to investigate rock anisotropy (doi 10.1002/2013JB010077)
- 409** *Shishay T. Bisrat, Heather R. DeShon, Jeremy Pesicek, and Clifford Thurber*
High-resolution 3-D *P* wave attenuation structure of the New Madrid Seismic Zone using local earthquake tomography (doi 10.1002/2013JB010555)
- 425** *Filippo Broggin, Kees Wapenaar, Joost van der Neut, and Roel Snieder*
Data-driven Green's function retrieval and application to imaging with multidimensional deconvolution (doi 10.1002/2013JB010544)
- 442** *Gabrielle Tepp, Cynthia J. Ebinger, Mario Ruiz, and Manahloh Belachew*
Imaging rapidly deforming ocean island volcanoes in the western Galápagos archipelago, Ecuador (doi 10.1002/2013JB010227)
- 464** *Christine A. Powell, Mitchell M. Withers, Randel Tom Cox, Gordana Vlahovic, and Pierre Arroucau*
Crustal velocity structure associated with the eastern Tennessee seismic zone: *V_p* and *V_s* images based upon local earthquake tomography (doi 10.1002/2013JB010433)
- 490** *Antonio Avallone, Antonio Rovelli, Giuseppe Di Giulio, Luigi Improta, Yehuda Ben-Zion, Giuliano Milana, and Fabrizio Cara*
Waveguide effects in very high rate GPS record of the 6 April 2009, *M_w* 6.1 L'Aquila, central Italy earthquake (doi 10.1002/2013JB010475)
- 502** *Yosuke Shikakura, Yukitoshi Fukahata, and Kazuro Hirahara*
Long-term changes in the Coulomb failure function on inland active faults in southwest Japan due to east-west compression and interplate earthquakes (doi 10.1002/2013JB010156)

- 519** *Pierre Boué, Philippe Roux, Michel Campillo, and Xavier Briand*
Phase velocity tomography of surface waves using ambient noise cross correlation and array processing (doi 10.1002/2013JB010446)
- 530** *Johannes Weertman*
Transonic gliding edge dislocations/slip pulse near and on an interface/fault (doi 10.1002/2013JB010121)
- 549** *Xiaofeng Liang, Eric Sandvol, Suzanne Kay, Benjamin Heit, Xiaohui Yuan, Patrick Mulcahy, Chen Chen, Larry Brown, Diana Comte, and Patricia Alvarado*
Delamination of southern Puna lithosphere revealed by body wave attenuation tomography (doi 10.1002/2013JB010309)
- 567** *Anne F. Sheehan, Thomas L. de la Torre, Gaspar Monsalve, Geoffrey A. Abers, and Bradley R. Hacker*
Physical state of Himalayan crust and uppermost mantle: Constraints from seismic attenuation and velocity tomography (doi 10.1002/2013JB010601)
- 581** *Cliff Frohlich, William Ellsworth, Wesley A. Brown, Michael Brunt, Jim Luetgert, Tim MacDonald, and Steve Walter*
The 17 May 2012 M4.8 earthquake near Timpson, East Texas: An event possibly triggered by fluid injection (doi 10.1002/2013JB010755)

Geodesy and Gravity/Tectonophysics

- 594** *Kerry Leith, Jeffrey R. Moore, Florian Amann, and Simon Loew*
In situ stress control on microcrack generation and macroscopic extensional fracture in exhuming bedrock (doi 10.1002/2012JB009801)
- 616** *S. M. Lechmann, S. M. Schmalholz, G. Hetényi, D. A. May, and B. J. P. Kaus*
Quantifying the impact of mechanical layering and underthrusting on the dynamics of the modern India-Asia collisional system with 3-D numerical models (doi 10.1002/2012JB009748)
- 645** *Yu-Ting Kuo, Francois Ayoub, Sébastien Leprince, Yue-Gau Chen, Jean-Philippe Avouac, J. Bruce H. Shyu, Kuang-Yin Lai, and Yu-Ju Kuo*
Coseismic thrusting and folding in the 1999 M_w 7.6 Chi-Chi earthquake: A high-resolution approach by aerial photos taken from Tsaotun, central Taiwan (doi 10.1002/2013JB010308)
- 661** *Emilia A. Koivisto, David L. Andrews, and Richard G. Gordon*
Tests of fixity of the Indo-Atlantic hot spots relative to Pacific hot spots (doi 10.1002/2013JB010413)
- 676** *Yuntao Tian, Barry P. Kohn, Andrew J. W. Gleadow, and Shengbiao Hu*
A thermochronological perspective on the morphotectonic evolution of the southeastern Tibetan Plateau (doi 10.1002/2013JB010429)
- 699** *R. Nishiyama, Y. Tanaka, S. Okubo, H. Oshima, H. K. M. Tanaka, and T. Maekawa*
Integrated processing of muon radiography and gravity anomaly data toward the realization of high-resolution 3-D density structural analysis of volcanoes: Case study of Showa-Shinzan lava dome, Usu, Japan (doi 10.1002/2013JB010234)
- 711** *Philip J. Heron and Julian P. Lowman*
The impact of Rayleigh number on assessing the significance of supercontinent insulation (doi 10.1002/2013JB010484)
- 734** *Noel M. Bartlow, Laura M. Wallace, R. John Beavan, Stephen Bannister, and P. Segall*
Time-dependent modeling of slow slip events and associated seismicity and tremor at the Hikurangi subduction zone, New Zealand (doi 10.1002/2013JB010609)
- 754** *R. Mourgues, A. Lacoste, and C. Garibaldi*
The Coulomb critical taper theory applied to gravitational instabilities (doi 10.1002/2013JB010359)

Cover. Structural elements map of India, Asia, and the Tibetan Plateau [e.g., *DeCelles et al.*, 2002; *Cook and Royden*, 2008]. Background is an elevation map (<http://maps-for-free.com>). The grey highly elevated area represents the Tibetan Plateau. The dashed lines are the main sutures between the terranes composing the Tibetan Plateau (ITS: Indus-Tsangpo Suture, BNS: Bangong-Nujiang Suture, and JS: Jinsha Suture). Major strike-slip faults are the Quetta-Chaman Fault (QCF), the Sagaing Fault (SF), which are included in the model, and the Karakorum Fault (KF), the Altyn Tagh Fault (ATF), and the Ornach-Nal Fault (ONF) which were not included in the model. The Tarim and the Sichuan Basins are included in the model as rigid obstacles. See *Lechmann et al.* [pp. 616–644].