

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, auxiliary materials, and other nonprinted content, go to <http://www.agu.org/journals/gl>.

i Highlights of This Issue

Space Sciences

L04104 *James LaBelle and Roger R. Anderson*

**Ground-level detection of auroral kilometric radiation** (doi 10.1029/2010GL046411)

L04101 *Toru Adachi, Yuichi Otsuka, Masashi Yamaoka, Mamoru Yamamoto, Kazuo Shiokawa, Alfred B. Chen, and Rue-Ron Hsu*

**First satellite-imaging observation of medium-scale traveling ionospheric disturbances by FORMOSAT-2/ISUAL** (doi 10.1029/2010GL046268)

L04102 *J.-P. St.-Maurice, K. M. Ambili, and R. K. Choudhary*

**Local electrodynamics of a solar eclipse at the magnetic equator in the early afternoon hours**  
(doi 10.1029/2010GL046085)

L04103 *A. M. Semmling, G. Beyerle, R. Stosius, G. Dick, J. Wickert, F. Fabra, E. Cardellach, S. Ribó, A. Rius, A. Helm, S. B. Yudanov, and S. d'Addio*

**Detection of Arctic Ocean tides using interferometric GNSS-R signals** (doi 10.1029/2010GL046005)

Planets

L04203 *John E. Moores, Léonce Komguem, James A. Whiteway, Mark T. Lemmon, Cameron Dickinson, and Frank Daerden*

**Observations of near-surface fog at the Phoenix Mars landing site** (doi 10.1029/2010GL046315)

L04202 *Y. Moudden and J. M. Forbes*

**First detection of wave interactions in the middle atmosphere of Mars** (doi 10.1029/2010GL045592)

Corrections

L04201 *Jeffrey M. Moore and Alan D. Howard*

**Correction to "Are the basins of Titan's Hotei Regio and Tui Regio sites of former low latitude seas?"**  
(doi 10.1029/2011GL046753)

Solid Earth

L04307 *H. Samuel, V. Aleksandrov, and B. Deo*

**The effect of continents on mantle convective stirring** (doi 10.1029/2010GL046056)

L04309 *Takashi Nakagawa and Paul J. Tackley*

**Effects of low-viscosity post-perovskite on thermo-chemical mantle convection in a 3-D spherical shell**  
(doi 10.1029/2010GL046494)

L04301 *Sung-Joon Chang, Miguel Merino, Suzan Van der Lee, Seth Stein, and Carol A. Stein*

**Mantle flow beneath Arabia offset from the opening Red Sea** (doi 10.1029/2010GL045852)

L04302 *S. C. Singh, N. D. Hananto, and A. P. S. Chauhan*

**Enhanced reflectivity of backthrusts in the recent great Sumatran earthquake rupture zones**  
(doi 10.1029/2010GL046227)

L04303 *Arwen Deuss, Jeroen Ritsema, and Hendrik van Heijst*

**Splitting function measurements for Earth's longest period normal modes using recent large earthquakes**  
(doi 10.1029/2010GL046115)

L04304 *B. Taisne, F. Brenguier, N. M. Shapiro, and V. Ferrazzini*

**Imaging the dynamics of magma propagation using radiated seismic intensity** (doi 10.1029/2010GL046068)



0094-8276-38-4

- L04305** Ying-Nien Chen, Yuancheng Gung, Shuei-Huei You, Shu-Huei Hung, Ling-Yun Chiao, Tzu-Ying Huang, Yen-Ling Chen, Wen-Tzong Liang, and Sen Jan  
**Characteristics of short period secondary microseisms (SPSM) in Taiwan: The influence of shallow ocean strait on SPSM** (doi 10.1029/2010GL046290)
- L04306** Zhigang Peng, Chunquan Wu, and Chastity Aiken  
**Delayed triggering of microearthquakes by multiple surface waves circling the Earth**  
(doi 10.1029/2010GL046373)
- L04308** Ayoub Kaviani, Georg Rümpker, Michael Weber, and Günter Asch  
**Short-scale variations of shear-wave splitting across the Dead Sea basin: Evidence for the effects of sedimentary fill** (doi 10.1029/2010GL046464)

## Hydrology and Land Surface Studies

- L04401** Jens M. Turowski, Alexandre Badoux, and Dieter Rickenmann  
**Start and end of bedload transport in gravel-bed streams** (doi 10.1029/2010GL046558)
- L04402** Yawei Cheng, Marc Stieglitz, Greg Turk, and Victor Engel  
**Effects of anisotropy on pattern formation in wetland ecosystems** (doi 10.1029/2010GL046091)
- L04403** Wei Chu, Xiaogang Gao, Thomas J. Phillips, and Soroosh Sorooshian  
**Consistency of spatial patterns of the daily precipitation field in the western United States and its application to precipitation disaggregation** (doi 10.1029/2010GL046473)
- L04404** Steffen Fritz, Liangzhi You, Andriy Bun, Linda See, Ian McCallum, Christian Schill, Christoph Perger, Junguo Liu, Matt Hansen, and Michael Obersteiner  
**Cropland for sub-Saharan Africa: A synergistic approach using five land cover data sets**  
(doi 10.1029/2010GL046213)
- L04405** Ahmed Mohamed Degu, Faisal Hossain, Dev Niyogi, Roger Pielke Sr., J. Marshall Shepherd, Nathalie Voisin, and Themis Chronis  
**The influence of large dams on surrounding climate and precipitation patterns** (doi 10.1029/2010GL046482)
- L04406** Rodrigo Cauduro Dias Paiva, Diogo Costa Buarque, Robin T. Clarke, Walter Collischonn, and Daniel Gustavo Allasia  
**Reduced precipitation over large water bodies in the Brazilian Amazon shown from TRMM data**  
(doi 10.1029/2010GL045277)

## The Cryosphere

- L04501** A. J. Wells, J. S. Wettlaufer, and S. A. Orszag  
**Brine fluxes from growing sea ice** (doi 10.1029/2010GL046288)

## Oceans

- L04601** Hiroya Yamano, Kaoru Sugihara, and Keiichi Nomura  
**Rapid poleward range expansion of tropical reef corals in response to rising sea surface temperatures**  
(doi 10.1029/2010GL046474)
- L04604** Mathis P. Hain, Daniel M. Sigman, and Gerald H. Haug  
**Shortcomings of the isolated abyssal reservoir model for deglacial radiocarbon changes in the mid-depth Indo-Pacific Ocean** (doi 10.1029/2010GL046158)
- L04602** Carmen Boening, Tong Lee, and Victor Zlotnicki  
**A record-high ocean bottom pressure in the South Pacific observed by GRACE**  
(doi 10.1029/2010GL046013)
- L04603** Clarissa R. Anderson, Raphael M. Kudela, Claudia Benitez-Nelson, Emily Sekula-Wood, Christopher T. Burrell, Yi Chao, Gregg Langlois, Jo Goodman, and David A. Siegel  
**Detecting toxic diatom blooms from ocean color and a regional ocean model** (doi 10.1029/2010GL045858)
- L04605** Jeffrey G. Dorman, Thomas M. Powell, William J. Sydeman, and Steven J. Bograd  
**Advection and starvation cause krill (*Euphausia pacifica*) decreases in 2005 Northern California coastal populations: Implications from a model study** (doi 10.1029/2010GL046245)

**L04606** *Stephanie A. Henson, Richard Sanders, Esben Madsen, Paul J. Morris, Frédéric Le Moigne, and Graham D. Quartly*

**A reduced estimate of the strength of the ocean's biological carbon pump** (doi 10.1029/2011GL046735)

**L04607** *Wei Shi and Menghua Wang*

**Satellite observations of asymmetrical physical and biological responses to Hurricane Earl**  
(doi 10.1029/2010GL046574)

## Climate

**L04702** *K. Frieler, M. Meinshausen, T. Schneider von Deimling, T. Andrews, and P. Forster*

**Changes in global-mean precipitation in response to warming, greenhouse gas forcing and black carbon**  
(doi 10.1029/2010GL045953)

**L04703** *S. D. Kaspari, M. Schwikowski, M. Gysel, M. G. Flanner, S. Kang, S. Hou, and P. A. Mayewski*

**Recent increase in black carbon concentrations from a Mt. Everest ice core spanning 1860–2000 AD**  
(doi 10.1029/2010GL046096)

**L04701** *Tianle Yuan, Lorraine A. Remer, Kenneth E. Pickering, and Hongbin Yu*

**Observational evidence of aerosol enhancement of lightning activity and convective invigoration**  
(doi 10.1029/2010GL046052)

**L04704** *Hong-Li Ren and Fei-Fei Jin*

**Niño indices for two types of ENSO** (doi 10.1029/2010GL046031)

**L04705** *Mathew Barlow*

**Influence of hurricane-related activity on North American extreme precipitation**  
(doi 10.1029/2010GL046258)

**L04706** *Michelle Zarries, Heather Johnstone, Matthias Prange, Silke Steph, Jeroen Groeneveld, Stefan Mulitza, and Andreas Mackensen*

**Bipolar seesaw in the northeastern tropical Atlantic during Heinrich stadials** (doi 10.1029/2010GL046070)

**L04707** *Lorenzo M. Polvani, Michael Prevosti, and Clara Deser*

**Large cancellation, due to ozone recovery, of future Southern Hemisphere atmospheric circulation trends**  
(doi 10.1029/2011GL046712)

## Atmospheric Science

**L04806** *P. J. Webster, V. E. Toma, and H.-M. Kim*

**Were the 2010 Pakistan floods predictable?** (doi 10.1029/2010GL046346)

**L04801** *J. G. Levine, E. W. Wolff, A. E. Jones, and L. C. Sime*

**The role of atomic chlorine in glacial-interglacial changes in the carbon-13 content of atmospheric methane**  
(doi 10.1029/2010GL046122)

**L04809** *Gareth Berry, Michael J. Reeder, and Christian Jakob*

**A global climatology of atmospheric fronts** (doi 10.1029/2010GL046451)

**L04802** *Robert W. Pinder, John T. Walker, Jesse O. Bash, Karen E. Cady-Pereira, Daven K. Henze, Mingzhao Luo, Gregory B. Osterman, and Mark W. Shepherd*

**Quantifying spatial and seasonal variability in atmospheric ammonia with in situ and space-based observations** (doi 10.1029/2010GL046146)

**L04803** *Victor March and Joan Montanya*

**X-rays from laboratory sparks in air: The role of the cathode in the production of runaway electrons**  
(doi 10.1029/2010GL046540)

**L04804** *Ruiyue Chen, Zhangqin Li, Robert J. Kuligowski, Ralph Ferraro, and Fuzhong Weng*

**A study of warm rain detection using A-Train satellite data** (doi 10.1029/2010GL046217)

**L04805** *K. A. Reed and C. Jablonowski*

**Impact of physical parameterizations on idealized tropical cyclones in the Community Atmosphere Model**  
(doi 10.1029/2010GL046297)

**L04807** *Gang Chen, Yi Ming, Noah D. Singer, and Jian Lu*

**Testing the Clausius-Clapeyron constraint on the aerosol-induced changes in mean and extreme precipitation**  
(doi 10.1029/2010GL046435)

**L04808** *A. Luque and F. J. Gordillo-Vázquez*

**Sprite beads originating from inhomogeneities in the mesospheric electron density**  
(doi 10.1029/2010GL046403)

**L04810** *Jean-François Lamarque, J. R. McConnell, D. T. Shindell, J. J. Orlando, and G. S. Tyndall*

**Understanding the drivers for the 20th century change of hydrogen peroxide in Antarctic ice-cores**  
(doi 10.1029/2010GL045992)

**The Author Index appears at the end of the issue.**