

GEOLOGY

AUGUST 2010 ☼ VOLUME 38 NUMBER 8

- 675 **Prehistoric earthquakes on the Caribbean–South American plate boundary, Central Range fault, Trinidad**
CAROL S. PRENTICE, JOHN C. WEBER, CHRISTOPHER J. CROSBY, AND DANIEL RAGONA
- 679 **Investigation of the strength contrast at the Moho: A case study from the Oman Ophiolite**
JANELLE M. HOMBURG, GREG HIRTH, AND PETER B. KELEMEN
- 683 **Potassium and uranium in the upper mantle controlled by Archean oceanic crust recycling**
SUNE G. NIELSEN
- 687 **Quantum magmatism: Magmatic compositional gaps generated by melt-crystal dynamics**
JOSEF DUFEK AND OLIVIER BACHMANN
- 691 **Mount Etna–Iblean volcanism caused by rollback-induced upper mantle upwelling around the Ionian slab edge: An alternative to the plume model**
W.P. SCHELLART
- 695 **Drowned coastal deposits with associated archaeological remains from a sea-level “slowstand”: Northwestern Gulf of Maine, USA**
JOSEPH T. KELLEY, DANIEL F. BELKNAP, AND STEFAN CLAESSION
- 699 **Predatory digging behavior by dinosaurs**
EDWARD L. SIMPSON, HANNAH L. HILBERT-WOLF, MICHAEL C. WIZEVICH, SARAH E. TINDALL, BEN R. FASINSKI, LAUREN P. STORM, AND MATTATHIAS D. NEEDLE
- 703 **Pleistocene dynamics of the interior East Antarctic ice sheet**
KAT LILLY, DAVID FINK, DEREK FABEL, AND KURT LAMBECK
- 707 **Source-side shear wave splitting and upper mantle flow in the Chile Ridge subduction region**
R.M. RUSSO, A. GALLEGO, D. COMTE, V.I. MOCANU, R.E. MURDIE, AND J.C. VANDECAR
- 711 **Priapulid worms: Pioneer horizontal burrowers at the Precambrian–Cambrian boundary**
JEAN VANNIER, IVAN CALANDRA, CHRISTIAN GAILLARD, AND ANNA ŻYLIŃSKA
- 715 **Age of the Badenian salinity crisis; impact of Miocene climate variability on the circum-Mediterranean region**
A. DE LEEUW, K. BUKOWSKI, W. KRIJGSMAN, AND K.F. KUIPER
- 719 **Equivalence of abrupt grain-size transitions in alluvial rivers and eolian sand seas: A hypothesis**
DOUGLAS J. JEROLMACK AND THEODORE A. BRZINSKI III
- 723 **Large-scale glaciation and deglaciation of Antarctica during the Late Eocene**
SHANAN E. PETERS, ANDERS E. CARLSON, DANIEL C. KELLY, AND PHILIP D. GINGERICH
- 727 **Covariability of the Southern Westerlies and atmospheric CO₂ during the Holocene**
P.I. MORENO, J.P. FRANCOIS, C.M. MOY, AND R. VILLA-MARTÍNEZ
- 731 **Deep deformation pattern from electrical anisotropy in an arched orogen (Betic Cordillera, western Mediterranean)**
ANA RUIZ-CONSTÁN, JESÚS GALINDO-ZALDIVAR, ANTONIO PEDRERA, JORGE A. ARZATE, JAUME POUS, FARIDA ANAHNAH, WIEBKE HEISE, FERNANDO A. MONTEIRO SANTOS, AND CARLOS MARÍN-LECHADO
- 735 **Evolution of a natural debris flow: In situ measurements of flow dynamics, video imagery, and terrestrial laser scanning**
SCOTT W. MCCOY, JASON W. KEAN, JEFFREY A. COE, DENNIS M. STALEY, THAD A. WASKLEWICZ, AND GREGORY E. TUCKER
- 739 **Mesoarchean subduction processes: 2.87 Ga eclogites from the Kola Peninsula, Russia**
M.V. MINTS, E.A. BELOUSOVA, A.N. KONILOV, L.M. NATAPOV, A.A. SHCHIPANSKY, W.L. GRIFFIN, S.Y. O'REILLY, K.A. DOKUKINA, AND T.V. KAULINA
- 743 **Platy layer silicate minerals for controlling residual strength in landslide soils of different origins and geology**
SHINYA NAKAMURA, SEIICHI GIBO, KAZUHIKO EGASHIRA, AND SHO KIMURA
- 747 **Paraná flood basalts: Rapid extrusion hypothesis confirmed by new ⁴⁰Ar/³⁹Ar results**
DAVID S. THIEDE AND PAULO M. VASCONCELOS
- 751 **Mélange rheology and seismic style**
ÅKE FAGERENG AND RICHARD H. SIBSON
- 755 **Rapid Early Cambrian rotation of Gondwana**
ROSS N. MITCHELL, DAVID A.D. EVANS, AND TAYLOR M. KILIAN
- 759 **A new perspective on paleopiezometry: Dynamically recrystallized grain size distributions indicate mechanism changes**
MICHAEL STIPP, JAN TULLIS, MARTIN SCHERWATH, AND JAN H. BEHRMANN
- 763 **Shallow-marine records of pyroclastic surges and fallouts over water in Jeju Island, Korea, and their stratigraphic implications**
Y.K. SOHN AND S.-H. YOON
- 766 **Research Focus: Learning to read fault-slip behavior from fault-zone structure**
CHRIS MARONE AND ELIZA RICHARDSON
-
- ONLINE FORUMS
- U-Pb zircon ages from the southwestern Karoo Basin, South Africa—Implications for the Permian-Triassic boundary
- e214 **COMMENT:** ROGER HIGGS
- e215 **REPLY:** ANDREA FILDANI, DAVID HODGSON, STEPHEN FLINT, ANTHONY TANKARD, AMY WEISLOGEL, AND STEPHEN M. HUBBARD
- Climate control on erosion distribution over the Himalaya during past ~100 ka
- e216 **COMMENT:** PRADEEP SRIVASTAVA AND UMA KANT SHUKLA
- e217 **REPLY:** WALIUR RAHAMAN, SUNIL K. SINGH, RAJIV SINHA, AND S.K. TANDON