Contributions to Mineralogy and Petrology
Volume 166 · Number 4 · October 2013

ORIGINAL PAPERS

**Strontium isotope disequilibrium of plagioclase in the Upper Critical Zone of the Bushveld Complex: evidence for mixing of crystal slurries**
S.-H. Yang · W.D. Maier · Y. Lahaye · H. O'Brien 959

**A seismogenic zone in the deep crust indicated by pseudotachylytes and ultramylonites in granulite-facies rocks of Calabria (Southern Italy)**
U. Altenberger · G. Prosser · A. Grande · C. Günter · A. Langone 975

**Reaction mechanism for the replacement of calcite by dolomite and siderite: implications for geochemistry, microstructure and porosity evolution during hydrothermal mineralisation**
M.A. Pearce · N.E. Timms · R.M. Hough · J.S. Cleverley 995

**Crystallization kinetics of alkali feldspars in cooling and decompression-induced crystallization experiments in trachytic melt**
F. Arzilli · M.R. Carroll 1011

**The effects of K₂O on the compositions of near-solidus melts of garnet peridotite at 3 GPa and the origin of basalts from enriched mantle**
F.A. Davis · M.M. Hirschmann 1029

**Origin of zoned spinel by coupled dissolution–precipitation and inter-crystalline diffusion: evidence from serpentinized wehrlite, Bangriposi, Eastern India**
N. Prabhakar · A. Bhattacharya 1047

**Melting of clinopyroxene + magnesite in iron-bearing planetary mantles and implications for the Earth and Mars**
A.M. Martin · K. Righter 1067

**TTG-type plutonic rocks formed in a modern arc batholith by hydrous fractionation in the lower arc crust**
O. Jagoutz · M.W. Schmidt · A. Enggist · J.-P. Burg · D. Hamid · S. Hussain 1099

**Combining in situ isotopic, trace element and textural analyses of quartz from four magmatic-hydrothermal ore deposits**
D. Tanner · R.W. Henley · J.A. Mavrogenes · P. Holden 1119

**High-temperature carbonate minerals in the Stillwater Complex, Montana, USA**
H.M. Aird · A.E. Boudreau 1143

**Oxygen isotope zoning in garnets from Franciscan eclogite blocks: evidence for rock-buffered fluid interaction in the mantle wedge**
J.C. Errico · J.D. Barnes · A. Strickland · J.W. Valley 1161

**Enrichment of Rare Earth Elements during magmatic and post-magmatic processes: a case study from the Loch Loyal Syenite Complex, northern Scotland**
A.S. Walters · K.M. Goodenough · H.S.R. Hughes · N.M.W. Roberts · A.G. Gunn · J. Rushton · A. Lacinska 1177

**Growth, preservation of Paleoproterozoic-shear-zone-hosted monazite, north of the Western Dharwar Craton (India), and implications for Gondwanaland assembly**
S. Rekha · A. Bhattacharya 1203

**Extended planar defects and the rapid incorporation of Ti⁺⁺ into olivine**
K.D. Burgess · R.F. Cooper 1223

**Combined U/Pb and (U–Th)/He geochronometry of basalt maars in Western Carpathians: implications for age of intraplate volcanism and origin of zircon metamatism**
V. Huraí · M. Danišk · M. Huraiová · J.-L. Paquette · A. Ádám 1235

**Diversity of primary CL textures in quartz from porphyry environments: implication for origin of quartz eyes**
O.V. Vasyukova · V.S. Kamenetsky · K. Goemann · P. Davidson 1253

**Cover** A long-exposure photograph, taken in November 2007, of the active lava dome of the 2007–2008 eruption of Kelut volcano, East Java, Indonesia. Incandescent trails mark the separation and transportation of solidified dome material down-slope. To the lower-left of the image the relatively calm remnant of the crater lake can be seen bordering the dome's northern flank. Photograph courtesy of Tom Pfeiffer [www.volcanodiscover.com] (Jeffery et al. (2013) CMP 166, 275).

**Further articles** can be found at www.springerlink.com

**Indexed** in Current Contents and Materials Science Citation Index

**Instructions for authors** for Contrib Mineral Petrol are available at www.springer.com/00410