

Physics and Chemistry of Minerals

NO SUBMISSION FEE
FOR FULL COLOR ILLUSTRATIONS!



Editors

C.A. McCammon

Bayerisches Geoinstitut
Universität Bayreuth
95440 Bayreuth, Germany
e-mail: catherine.mccammon@uni-bayreuth.de

T. Tsuchiya

Geodynamics Research Center
Ehime University
2-5 Bunkyo-cho
Matsuyama 790-8577, Japan
e-mail: takut@sci.ehime-u.ac.jp

M. Rieder

Mimoňská 14 / 638
190 00 Praha 9 - Prosek
Czech Republic
e-mail: Milan_Rieder@JHU.edu

A. Kavner

Department of Earth and Space Sciences
University of California, Los Angeles
595 Charles Young Drive East, Box 951567
Los Angeles, CA 90095-1567
e-mail: akavner@ucla.edu

Founding Editors

S.S. Hafner, C.T. Prewitt and A.S. Marfunin

Physics and Chemistry of Minerals Volume 40 · Number 9 · October 2013

ORIGINAL PAPERS

A micro-Mössbauer study of chromites included in diamond and other mantle-related rocks

D. Lenaz · H. Skogby · A.M. Logvinova · N.V. Sobolev · F. Princivalle 671

Novel sensible thermal storage material from natural minerals

C. Li · J. Ouyang · H. Yang 681

Thermal equation of state of synthetic orthoferrosilite at lunar pressures and temperatures

J. de Vries · M.H.G. Jacobs · A.P. van den Berg · M. Wehber · C. Lathe · C.A. McCammon · W. van Westrenen 691

Three cubic phases intergrown in a birefringent andradite-grossular garnet and their implications

S.M. Antao 705

Ab initio quantum chemical investigation of arsenic sulfide molecular diversity from As_4S_6 and As_4

A. Kyono 717

Hydrothermal synthesis of pyrochlores and their characterization

A.F. Redkin · A.M. Ionov · N.P. Kotova 733

Structural changes of synthetic opal by heat treatment

A. Arasuna · M. Okuno · H. Okudera · T. Mizukami · S. Arai · S. Katayama · M. Koyano · N. Ito 747

Further articles can be found at www.springerlink.com

Indexed in *Science Citation Index*, *Science Citation Index Expanded (SciSearch)*, *SCOPUS*, *Astrophysics Data System (ADS)*, *Chemical Abstracts Service (CAS)*, *Google Scholar*, *EBSCO*, *Academic OneFile*, *ChemWeb*, *Current Abstracts*, *Current Contents/Physical, Chemical and Earth Sciences*, *El-Compendex*, *Gale*, *Geobase*, *GeoRef*, *INIS Atomindex*, *International Bibliography of Book Reviews (IBR)*, *International Bibliography of Periodical Literature (IBZ)*, *Journal Citation Reports/Science Edition*, *Materials Science Citation Index*, *OCLC*, *SCImago*, *Summon by Serial Solutions*, *VINITI - Russian Academy of Science*

Instructions for authors for *Phys Chem Minerals* are available at www.springer.com/269