

Physics and Chemistry of Minerals

NO SUBMISSION FEE
FOR FULL COLOR ILLUSTRATIONS!



Physics and Chemistry of Minerals

Volume 40, Issue 6, June 2013

ISSN: 0342-1791 (Print) 1432-2021 (Online)

In this issue (7 articles)

1. Original Paper

Bader's topological analysis of the electron density in the pressure-induced phase transitions/amorphization in α -quartz from the catastrophe theory viewpoint

Marcello Merli, Luciana Sciascia Pages 455-466

2. Original paper

Crystal structures of Zn_2SiO_4 III and IV synthesized at 6.5–8 GPa and 1,273 K

Xianyu Liu, Masami Kanzaki, Xianyu Xue Pages 467-478

3. Original Paper

Studies on the solid acidity of heated and cation-exchanged montmorillonite using n -butylamine titration in non-aqueous system and diffuse reflectance Fourier transform infrared (DRIFT) spectroscopy

Hongmei Liu, Dong Liu, Peng Yuan, Daoyong Tan... Pages 479-489

4. Original Paper

Raman study of $MgCr_2O_4$ - $Fe^{2+}Cr_2O_4$ and $MgCr_2O_4$ - $MgFe_2^{3+}O_4$ synthetic series: the effects of Fe^{2+} and Fe^{3+} on Raman shifts

Davide Lenaz, Vanni Lughì Pages 491-498

5. Original Paper

Low-temperature evolution of OH bands in synthetic forsterite, implication for the nature of H defects at high pressure

J. Ingrin, J. Liu, C. Depecker, S. C. Kohn, E. Balan... Pages 499-510

6. Original Paper

Interdiffusion of Mg-Fe in olivine at 1,400–1,600 °C and 1 atm total pressure

Shogo Tachibana, Shinnosuke Tamada, Haruka Kawasaki... Pages 511-519

7. Original Paper

Elastic, mechanical, and thermodynamical properties of superionic lithium oxide for high pressures

Dinesh Varshney, Swarna Shriya Pages 521-530