



# MINERALOGICAL MAGAZINE

## CONTENTS

### LETTER

- C. M. B. HENDERSON, L. N. KOGARKO AND D. A. PLANT:  
Extreme closed system fractionation of volatile-rich, ultrabasic  
peralkaline melt inclusions and the occurrence of djerfisherite  
in the Kugda alkaline complex, Siberia 433

- W. COMPSTON:  
Geological age by instrumental analysis:  
the 29th Hallimond Lecture 297

- D. K. TEERTSTRA, P. ČERNÝ AND F. C. HAWTHORNE:  
Subsolidus rubidium-dominant feldspar from the Morra  
pegmatite, Mozambique: paragenesis and composition 313

- D. K. TEERTSTRA, M. SCHINDLER, B. L. SHERRIFF AND F. C. HAWTHORNE:  
Silvialite, a new sulfate-dominant member of the scapolite  
group with an Al-Si composition near the  $I4/m$  —  $P4_3/n$   
phase transition 321

- Á. FERNANDEZ-GONZALEZ, M. PRIETO, A. PUTNIS AND S. LOPEZ-ANDRÉS:  
Concentric zoning patterns in crystallizing  $(Cd,Ca)CO_3$  solid  
solutions from aqueous solutions 331

- I. McDONALD, D. OHNNESTETTER, M. OHNNESTETTER AND D. J. VAUGHAN:  
Palladium oxides in ultramafic complexes near Lavatrøfa,  
Western Andriamena, Madagascar 345

- D. J. LARGE, Z. SAWLOWICZ AND J. SPRATT:  
A cobaltite-framboidal pyrite association from the Kupferschiefer:  
possible implications for trace element behaviour during the  
earliest stages of diagenesis 353

- R. K. W. MERKLE, R. PIKL, S. M. C. VERRYN AND D. DE WAAL:  
Raman spectra of synthetic 'braggite',  $(Pd,Pt,Ni)S$  363

- S. ARAI, H. M. PRICHARD, I. MATSUMOTO AND P. C. FISHER:  
Potarite ( $Pd-Hg$ ) in thermally metamorphosed dunite from  
the Inazumi-yama ultramafic complex, southwestern Japan:  
an implication for the behaviour of mercury in PGE  
mineralization in peridotite 369

continued on back cover

June 1999

VOL. 63, No.3

PUBLISHED BY THE MINERALOGICAL SOCIETY  
41 QUEEN'S GATE LONDON SW7 5HR

# MINERALOGICAL MAGAZINE

## CONTENTS CONTD.

E. MAKOVICKY AND S. KARUP-MØLLER: The phase system Fe-Ir-S at 1100, 1000 and 800°C	379
J. V. OWEN AND J. D. GREENOUGH: Scapolite pegmatite from the Minas fault, Nova Scotia: tangible manifestation of Carboniferous, evaporite-derived hydrothermal fluids in the western Cobequid highlands?	387
D. E. HARLOV: Ag-Cu exchange equilibria between $\alpha$ -miargyrite, chalcostibite, pyrargyrite, and high-skinnerite: constraints on Ag-Cu mixing in $\alpha$ -miargyrite and chalcostibite	399
R. MARTIN, K. A. RODGERS AND P. R. L. BROWNE: The nature and significance of sulphate-rich, aluminous efflorescences from the Te Kopua geothermal field, Taupo Volcanic Zone, New Zealand	413
S. J. MATTHEWS, D. H. S. MONCRIEFF AND M. R. CARROLL: Empirical calibration of the sulphur valence oxygen barometer from natural and experimental glasses: method and applications	421
Obituary	439
Book Reviews	441

TYPESET BY WESTFIELD TYPESETTING, NORTH WALSHAM, NORFOLK  
PRINTED BY BLACK BEAR PRESS LIMITED, CAMBRIDGE, ENGLAND