

Contents

Introduction	ix
General Topics and Reviews	
TAYLOR, S. R. Geochemical and petrological significance of the Archaean-Proterozoic boundary	3
HALL, R. P., HUGHES, D. J., FRIEND, C. R. L. & SNYDER, G. L. Proterozoic mantle heterogeneity: geochemical evidence from contrasting basic dykes	9
RICKARD, D. Proterozoic volcanogenic mineralization styles	23
Early Proterozoic Volcanic Suites of the Baltic Shield	
PHARAOH, T. C., WARREN, A. & WALSH, N. J. Early Proterozoic metavolcanic suites of the northernmost part of the Baltic Shield	41
HONKAMO, M. Geochemistry and tectonic setting of early Proterozoic volcanic rocks in northern Ostrobothnia, Finland	59
VIVALLO, W. & CLAEISSON, L.-Å. Intra-arc rifting and massive sulphide mineralization in an early Proterozoic volcanic arc, Skellefte district, northern Sweden	69
PARR, J. & RICKARD, D. Early Proterozoic subaerial volcanism and its relationship to Broken Hill-type mineralization in central Sweden	81
COLLEY, H. & WESTRA, L. The volcano-tectonic setting and mineralization of the early Proterozoic Kemiö-Orijärvi-Lohja Belt, SW Finland	95
Early and Middle Proterozoic Volcanic Suites of the Laurentian and North Atlantic Shields	
BARAGAR, W. R. A. & SCOATES, R. F. J. Volcanic geochemistry of the northern segments of the Circum-Superior Belt of the Canadian Shield	113
ARNDT, N. T., BRÜGMANN, G. E., LEHNERT, K., CHAUVEL, C. & CHAPPELL, B. W. Geochemistry, petrogenesis and tectonic environment of Circum-Superior Belt basalts, Canada	133
LEWRY, J. F., MACDONALD, R., LIVESEY, C., MEYER, M., VAN SCHMUS, R. & BICKFORD, M. E. U-Pb geochronology of accreted terranes in the Trans-Hudson Orogen, Northern Saskatchewan, Canada	147
WATTERS, B. R. & PEARCE, J. A. Metavolcanic rocks of the La Ronge Domain in the Churchill Province, Saskatchewan: geochemical evidence for a volcanic arc origin	167
GASKARTH, J. W. & PARSLow, G. R. Proterozoic volcanism in the Flin Flon greenstone belt, east-central Saskatchewan, Canada	183
GOWER, C. F. & RYAN, B. Two stage felsic volcanism in the Lower Proterozoic upper Aillik Group, Labrador, Canada: its relationship to syn- and postkinematic plutonism	201
CONDIE, K. C. Early Proterozoic volcanic regimes in southwestern North America	211
LECHEMINANT, A. N., MILLER, A. R. & LECHEMINANT, G. M. Early Proterozoic alkaline igneous rocks, District of Keewatin, Canada: petrogenesis and mineralization	219

RYAN, A. B., BARAGAR, W. R. A. & KONTAK, D. J. Geochemistry, tectonic setting, and mineralization of high-potassium middle Proterozoic rocks in central Labrador, Canada	241
JOHNSON, Y. A., PARK, R. G. & WINCHESTER, J. A. Geochemistry, petrogenesis and tectonic significance of the early Proterozoic Loch Maree Group amphibolites of the Lewisian Complex, NW Scotland	255
Proterozoic Volcanic Suites of the Guiana Shield	
GIBBS, A. K. Proterozoic volcanic rocks of the northern Guiana Shield, South America	275
RENNER, R. & GIBBS, A. K. Geochemistry and petrology of metavolcanic rocks of the early Proterozoic Mazaruni greenstone belt, northern Guyana	289
Proterozoic Volcanic Suites of Africa	
MYERS, R. E., CAWTHORN, R. G., MCCARTHY, T. S. & ANHAEUSSER, C. R. Fundamental uniformity in the trace element patterns of the volcanics of the Kaapvaal Craton from 3000 to 2100 Ma: evidence for the lithospheric origin of these continental tholeiites	315
REID, D. L., WELKE, H. J., ERLANK, A. J. & MOYES, A. The Orange River Group: a major Proterozoic calcalkaline volcanic belt in the western Namaqua Province, southern Africa	327
BORG, G. & MAIDEN, K. J. Alteration of late Middle Proterozoic volcanics and its relation to stratabound copper-silver-gold mineralization along the margin of the Kalahari Craton in SWA/Namibia and Botswana	347
BREITKOPF, J. H. & MAIDEN, K. J. Geochemical patterns of metabasites in the southern part of the Damara Orogen, SWA/Namibia: applicability to the recognition of tectonic environment	355
KLEMENIC, P. M. The geochemistry of Upper Proterozoic lavas from the Red Sea Hills, NE Sudan	363
Proterozoic Volcanic Suites of Australia	
WYBORN, L. A. I., PAGE, R. W. & PARKER, A. J. Geochemical and geochronological signatures in Australian Proterozoic igneous rocks	377
JAMES, S. D., PEARCE, J. A. & OLIVER, R. A. The geochemistry of the Lower Proterozoic Willyama Complex volcanics, Broken Hill Block, New South Wales	395
WILSON, I. H. Geochemistry of Proterozoic volcanics, Mount Isa Inlier, Australia	409
WYBORN, L. A. I. The petrology and geochemistry of alteration assemblages in the Eastern Creek volcanics, as a guide to copper and uranium mobility associated with regional metamorphism and deformation, Mount Isa, Queensland	425
Proterozoic Volcanic Suites of Asia	
JIA CHENGZAO. Geochemistry and tectonics of the Xionger Group in the eastern Qinling Mountains of China—a mid Proterozoic volcanic arc related to plate subduction	437
Middle to Late Proterozoic Volcanic Suites of the North Atlantic Borderlands	
SMITH, T. E. & HOLM, P. E. The trace element geochemistry of metavolcanic and dykes from the Central Metasedimentary Belt of the Grenville Province, southeastern Ontario, Canada	453

BREWER, T. S. & ATKIN, B. P. Geochemical and tectonic evolution of the Proterozoic Telemark supracrustals, southern Norway	471
WINCHESTER, J. A., MAX, M. D. & LONG, C. B. Trace element geochemical correlation in the reworked Proterozoic Dalradian metavolcanic suites of the western Ox Mountains and NW Mayo Inliers, Ireland	489
LEES, G. J., ROACH, R. A., SHUFFLEBOTHAM, M. M. & GRIFFITHS, N. H. Upper Proterozoic basaltic volcanism in the northern Massif Armoricain, France	503
CABANIS, B., CHANTRAINE, J. & RABU, D. Geochemical study of the Brioverian (late Proterozoic) volcanic rocks in the northern Armorican Massif, France. Implications for geodynamic evolution during the Cadomian	525
PHARAOH, T. C., WEBB, P. C., THORPE, R. S. & BECKINSALE, R. D. Geochemical evidence for the tectonic setting of late Proterozoic volcanic suites in central England	541
Index	553