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# ALUMINOUS-SILICEOUS METASEDIMENTS FROM THE HIGHLAND GROUP OF ROCKS OF SRI LANKA

**Tissa Munasinghe** *and* **C. B. Dissanayake**
(*Department of Geology, University of Peradeniya*)

Twelve biotite gneisses ±garnet, cordierite, sillimanite were identified as metasediments by using the igneous/sedimentary fields of two or more plots of Niggli al —(fm + c) — alk — mg, Si vs (c + alk), Si vs (al + fm) — (c + alk), c vs (al — alk) values of 55 gneisses and charnockites from the Highland Group of Sri Lanka. Out of the 55 few plotted within the calc—meta-sediment field and the others including charnockites were recognized as meta-igneous. For the above rocks silica is in the range of 60.44 — 81.15 (av. 69.51), alumina 8.30—18.5 (av. 14.33) and $TiO_2$ 0.40 — 1.35 (av. 0.78) weight percentage. The ratios $K_2O/Na_2O$, FeO total /$Al_2O_3$, MnO/FeO total, $Fe_2O_3/Al_2O_3$, FeO/$Al_2O_3$, MgO/CaO, and $SiO_1/Al_2O_3$ of the metasediments indicate mixtures in various ratios of sandstones and shales as their premetamorphic equivalents. Simulated rare earth element (REE) patterns of the metasediments show a general trend of a light rare earth element enrichment. Averages for La and Ce and Y are 52, 96 and 30 ppm respectively.

It is possible to derive a conclusion from the above data that the biotite gneisses ± garnet, cordierite, sillimanite are metamorphosed equivalents of early Proterozoic/late Archean Aluminous—siliceous sediments.