A STUDY OF THE AMBAGASPITIYA GRANITE IN THE GAMPAHA DISTRICT OF SRI LANKA.

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The Ambagaspitiya granites occur extensively in Ambagaspitiya and surrounding villages in the Gampaha District of the western region of Sri Lanka. Scattered outcrops of granite also occur within a distance of around 75 km towards north and east of Ambagaspitiya. Field investigations enable the subdivision of the granites into six categories depending on their texture, mineral composition and their colours which vary from light to strong pink. The contacts between the different types of granites are generally not sharp and very often gradational although a coarse grained variety often exhibits sharp contacts with the rsest. The contacts between the granites in general and the country rock (mainly biotite gneiss) exhibit both intrusive and conformable relationship.

The mineral composition of the granites is quartz, plagioclase, microcline, perthite, orthoclase $\pm$ biotite $\pm$ muscovite (ratre) $\pm$ hornblende with accessory magnetite, allanite, zircon, apatite and rare sphene.

The SiO_2 percentages of the granites vary from 57.73 to 75.03 and Al_2O_3 percentages are unusually high and range from 14.01 to 25.79 percent. The Na_2O and K_2O range from 0.36 to 5.08 percent and from 1.22 to 7.32 percent respectively. The geochemical charcateritics of the granites reflect more similarities to S-type than I- or A- types, in having $Al/(Na+K+Ca/2) > 1.1$ and low Na/k. The differentiation trends strongly suggest that these granites are fractionated S-type and are end products of one single source.