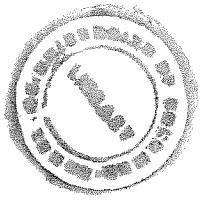
THE CHEMISTRY OF SRI LANKA LIMESTONE AND MAGNESITE AND THEIR INDUSTRIAL POTENTIALITIES



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ABSTRACT

Sri Lanka is endowed with a variety of calcareous materials. Miocene limestone is used in the cement industry, coral and shell in the lime industry, dolomite in the fertilizer and lime industry and calcite in the ceramic industry. No major occurrences of magnesite have been proved. A series of samples of calcareous materials mainly dolomites from the Kandy region have been examined by modern methods of analysis using sophisticated instrumentation and the results indicate the variation of the MgO content from around 3% to 47% in samples examined. Observations reveal that there are magnesite occurrences approaching the theoretical composition of magnesite within dolomite formations in the Digana area. This observation has brought to light the probable occurrences of magnesite deposits in the hill country. The main conclusions of this research programme include, the possibilities of locating economic deposits of magnesite in the central hills of Sri Lanka, the suitability of using magnesite and dolomite for refractories production and dolomite for lime manufacture and that dolomite could also be used for the manufacture of sea water magnesite. Calcareous material in Sri Lanka is an important mineral resource base for the manufacture of a variety of items for the future expansion of the mineral based industry of the island.