

Geochemical evaluation of limestone deposits of Pakistan

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Limestone is the most abundant and massively used industrial commodity globally as well as in Pakistan. Type localities and type sections were sampled from top to bottom of the vertical succession of beds of each limestone rock unit for chemical and mineralogical analysis. The results of laboratory studies were then compared with the British standard specifications and it was found that these limestones, namely, Lockhart, Margalla Hill, Samanasuk, Sakesar and Nammal are of great economic importance and commercially exploitable. For each limestone, bulk samples were taken from top to bottom beds in vertical depositional succession at the respective type sections selected for sampling. Limestone and calcium carbonate are used in a wide range of products e.g. glass, ceramics, paper, sugar, plastic, paint, rubber, polishes, dentifrices, putty, insecticides, as a filler in adhesives, matches, pencils, food, cosmetics, pharmaceuticals and antibiotics. Collected samples were processed, prepared and analyzed chemically for SiO_2 , Al_2O_3 , CaO , MgO , Na_2O , K_2O and loss on ignition in accordance with ASTM C 25 - 06. This research work has shown that abundant quantities of limestone spread all over Pakistan is of great industrial usage and bear potential for industrialization and economic revival of Pakistan.