INDUSTRIAL EVALUATION OF SAKASAR LIMESTONE EXPOSED IN WESTERN SALT RANGE, PAKISTAN

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Abstract
Pakistan has large, exploitable reserves of limestone. Nammal limestone of Middle Eocene was evaluated for different end uses. For this purpose, the physical properties of raw stone, optical properties of pulverized product, percentage purity, calcium carbonate index and its pH in water were measured. Finally, quick lime was prepared for each sample by shock calcination of each sample at different temperatures ranging from 950oC to 1150oC, at an interval of 50oC. All other factors, which may affect the quality of quick lime, were kept constant. Chemical properties and physical properties of quick lime were measured and a relationship between them, with respect to the increase in calcination temperature, was established in order to study the effect of rise in temperature on properties of quick lime. The study revealed that siliceous impurities are prominent in Sakesar Limestone. Optical properties of Sakesar Limestone are good enough to be recommended for use in paints, paper and rubber industry. While the maximum high-quality lime of medium reactivity is prepared from Sakesar Limestone at temperature ranging between 950^{o}C – 1000^{o}C.