

Conservation of Mineral Resources and Protection of Environment through Waste Management

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Abstract

Mineral resource is one of the major raw materials for our industrial development. However, the mineral based industries produce huge quantity of toxic solid wastes as well as liquid and gaseous effluents, which result in a lot of environmental pollution. In order to get the best out of this non-replenish able resource, it is necessary to develop eco-friendly technology for producing the mineral based products along with management of their wastes. In this paper, a brief mention has been made regarding the need for developing environment friendly processes for proper utilization of all grades of ores and minerals and recovery of values from the wastes in order to minimize their adverse effect on the environment. An account of the general methods of processing the wastes has been outlined. Application of environment friendly technology in some typical mineral based industries has been described and discussed. In the conclusion, some specific suggestions regarding utilization of low grade and complex ores and minerals, processing of the wastes of mineral based industries and need for regular environment audit of these industries, have been made.