

ABSTRACT

Paper industry is a big user of Aluminium Sulfate "Alum" and in Pakistan substantial quantities of Aluminium Hydroxide are being imported to make Iron free alum. Indigenous bauxite/aluminous clay which contain reasonable amount of Aluminium Oxide and these can be used as a good source for alum manufacturing. The biggest problem associated with the usage of indigenous raw material is the presence of Iron Oxide. Alum made by direct digestion of bauxite/aluminous clay gives alum of desired strength but can not be used for white varieties of papers because of presence of Iron which makes the papers yellow/low brightness.

Selective extraction of both Iron and Aluminium were studied with various acids in connection to Iron removal from the bauxite. The objective is to extract Iron and leave behind the desired component i.e. Aluminium. It has been evident from the extraction results that Oxalic, Citric and Phosphoric acids give encouraging results.