

Over 800 million tonnes of coal fly ash are produced worldwide every year posing an environmental threat due to disposal problems. Nowadays the increasing interest in the synthesis of zeolites from low cost materials has prompted extensive studies on their conversion into zeolites as one of promising coal fly ash utilization methods. Zeolite synthesized from coal fly ash is a minor but interesting product, with a number of environmental applications. This paper provides an overview on the methodologies for zeolite synthesis from coal fly ash, and a description of conventional alkaline conversion processes, of synthesis of different zeolitic products and their methods of characterisation. The examination of the studies presented by different authors reveal that one of the main potential applications of zeolite materials is the uptake of heavy metals and organic pollutants such as dyes from polluted waste waters and nearly all zeolite synthesis have been driven by environmental concerns.