

Characterization by thermal analysis of natural kieselguhr and sand for industrial application

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Abstract: Kieselguhr also known diatomite is a silica-based mineral, usually light in color (white if pure). It is very finely porous and very low in density. It is composed mainly of silica as career sand. The aim of this study was to characterize the kieselguhr and sand for together use in industry for various applications. Both products come of Sig deposit (West Algeria). The results of simultaneous analyses by Thermogravimetric Analysis and Differential Scanning Calorimetry (TGA-DSC) for kieselguhr and sand sample shows almost identical peaks except for the peak which appears at 574° C which corresponds to the transformation of quartz sand that does not appear in the Kieselguhr sample because of its amorphous character and higher exothermic peak at 574° C approximately.

Keywords : Kieselguhr, diatomite, sand, thermal analysis, DSC, TGA