Abstract

For this research, It was used Colombian minerals. Authors experimented with fluorite (from Santander Province), feldspar and manganese (both from Antioquia Province) at 0,0%, 0,2%, 0,5%, 1,0%, 1,5% and 2,0%. Several techniques were used such as: XRD, XRF, SEM and optical microscopy to characterize materials used and DTA to determine clinkering temperature; and tested mineralogical characteristics of clinker obtained. The best results were obtained by 0,5% addition of fluorite because it permitted formation of alite as well as reduced lime contents. Feldspar and manganese (braunite) exhibited unacceptable performance.

Keywords

Portland cement, clinker, clinkering temperature, mineralizers, fluorite, feldspar, manganese