

Dissolution of South African Limestone for Wet Flue Gas Desulphurization

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Abstract : Wet Flue gas desulphurization (FGD) systems are commonly used to remove sulphur dioxide from flue gas by contacting it with limestone in aqueous phase which is obtained by dissolution. Dissolution is important as it affects the overall performance of a wet FGD system. In the present study, effects of pH, stirring speed, solid to liquid ratio and acid concentration on the dissolution of limestone using an organic acid (adipic acid) were investigated. This was investigated using the pH stat apparatus. Calcium ions were analyzed at the end of each experiment using Atomic Absorption (AAS) machine.

Keywords : desulphurization, limestone, dissolution, pH stat apparatus

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