عنوان مقاله:

An Experimental Investigation of Reactive Absorption of Carbon Dioxide into an Aqueous NH3/H2O/NaOH Solution

محل انتشار:

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خلاصه مقاله:

In this research, the reactive absorption of carbon dioxide in an aqueous solution of NH3, H2O, and NaOH has experimentally been investigated. The experiments were carried out in an absorption pilot plant in different operational conditions. The composition and temperature of both gas and liquid phases were obtained during the column height. The concentration of molecular and ionic species in the liquid phase was calculated using the principles of electrolyte and Pitzer model. In the experiments, the effect of sodium hydroxide concentration on carbon dioxide absorption was considered. The results revealed that the concentrations of ionic and molecular species in the liquid phase drastically influence the absorption rate of carbon dioxide. Also, the results showed that the absorption rate of carbon dioxide .was increased by increasing ammonia and sodium hydroxide concentration

کلمات کلیدی:

Reactive Absorption, Electrolytes, Sodium Hydroxide, Ammonia, Carbon Dioxide