

## Dissolution Kinetics of Aluminum Can in Sec-butyl alcohol for Aluminum sec-butoxide

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A kinetic study of dissolution reaction of Al can waste was conducted for the synthesis of Aluminum sec-butoxide (ASB). The reaction was examined at the condition of 3mol SBA/mol Al of stoichiometric ratio, adding  $10^{-3}$ mol HgI<sub>2</sub>/mol Al for catalyst and no agitation at the reaction temperature ranging from 70 to 100°C. On the basis of the shrinking core model with the shape of flat plate, the first dissolution rate of Al can was controlled by chemical reaction. In the second stage, the dissolution rate is controlled by diffusion control through the ash layer.