

Study of platinum catalysts supported on alumina over dehydrogenation of *n*-butane

정하나, 김정은, 조성준[†]

전남대학교

(sjcho@chonnam.ac.kr[†])

Dehydrogenation of *n*-butane to butene and butadiene is key process to produce a raw material for synthetic rubbers such as SBR, BR and NBR. In the process, the coke formation led to catalyst deactivation and the catalyst regeneration is mandatory. Promoted platinum/tin catalysts supported on alumina, most common catalyst for dehydrogenation have been widely investigated.

In this work, cesium was incorporated in platinum/tin catalyst as a promoter to improve the catalytic performance such as C₄= selectivity and the resistance to deactivation. Depending on the content of cesium, the properties of the catalyst were studied in order to see these effect on the dehydrogenation of *n*-butane.