

A Study of Sulfur Poisoning to SCR on Zeolite-Supported Metal Oxide Catalyst

이승엽, 정주용, 하종주, 김태민, 양재춘*
(주)E&D
(yangjc@endss.com*)

Selective Catalytic Reduction (SCR) of NO_x technology has considered as one of the leading candidates for diesel exhaust emissions regulation. Zeolite based catalysts are among the primary candidates for diesel engine application of SCR technology. In general, the activity of sulfur poisoned SCR catalyst is lower than fresh SCR catalyst. However, several studies suggested that sulfur poisoning promote the catalytic activity under certain condition. Therefore, a study of sulfur poisoning to SCR is necessary.

In this study, sulfur poisoned zeolite-supported metal oxides catalyst were prepared by commercial zeolite and various metal oxides. N₂ adsorption, X-ray diffraction (XRD) and NH₃ temperature programmed desorption (NH₃-TPD), were performed for these catalysts.