

## Article Abstract

Title:	Heterogeneous catalytic degradation of polyacrylamide solution
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Abstract:	Degradation of polyacrylamide (PAM) in aqueous solution was studied by using Fe <sub>2</sub> O <sub>3</sub> /Al <sub>2</sub> O <sub>3</sub> as heterogeneous catalyst in the presence of H <sub>2</sub> O <sub>2</sub> . Effects of catalyst preparation conditions such as impregnated materials and adding different trace metal elements to catalyst activity were studied, respectively. It was observed that compared with FeSO <sub>4</sub> , the Fe(III) catalyst prepared with Fe(NO <sub>3</sub> ) <sub>3</sub> as the impregnated material showed better catalyst activity. Modified with trace metal elements, the catalytic activity of Fe <sub>2</sub> O <sub>3</sub> /Al <sub>2</sub> O <sub>3</sub> could be changed greatly. Among various trace metal elements, Fe <sub>2</sub> O <sub>3</sub> /Al <sub>2</sub> O <sub>3</sub> catalysts modified with Co and Cu showed great increase on catalytic activity.
Keywords:	Fenton-like; polyacrylamide; heterogeneous catalyst; Fe(III) catalyst.