

A Study on the Vanadium leaching of the spent Residue Hydrodesulfurization (RHDS) catalyst

방현석, 박영진, 방종성, 나우진, 전민기, 박해경[†]

한서대학교

(jhkp@hanseo.ac.kr[†])

The purpose of this paper is to leach a Vanadium deposited in spent RHDS catalyst. spent RHDS catalyst is experimented using acid leaching method of laboratory-scale. this study confirmed suitable acid/catalyst condition for leaching and Vanadium leaching according to the catalytic type.

After leaching, this research has identified the characteristics of the catalyst by checking the leaching effect through the analysis machinery such as porosimeter, BET, HDS, XRF, C&S. HDS experiment was conducted using some samples. As a result, in the experiment, it confirmed that desulfurization activity is increased due to the only leaching of Vanadium. In conclusion, this study showed that the leaching of Vanadium deposited on spent HDS catalyst and different metal leaching in accordance with the organic acids, inorganic acid.

This research will be useful for metal recovery purpose and regeneration and remanufacture of the catalyst.