



X-RAY ANALYSIS OF SPENT CATALYSTS AND RECOVERED METALS

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Abstract

The main aim of this research work is to investigate by the means of X-ray analysis methods the spent catalysts and the recovered valuable metals in order to prove the efficiency of the recycling process as a main environmental issue.

The materials used for analysis were spent catalyst samples based on Cu, Cr, Zn, Al, Ni, from Romanian petroleum refining industry. By hydrometallurgical route it has been recovered Ni, Al and Cu. The methods used for analysis were X-ray diffraction and X-ray fluorescence spectrometry.

This research has practical implications for wastes recycling not only for recovery the valuable metals and lowering catalysts costs but also to prevent the environmental pollution.

Key words: recovered metals, spent catalysts, X-ray diffraction, X-ray fluorescence spectrometry

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