

عنوان مقاله:

Introducing Three Novel Proposed Models for Process Design of Recovery of Inactivated Refinery Platinum Catalysts

محل انتشار:

هفتمین کنفرانس بین المللی شیمی و مهندسی شیمی (سال: 1399)

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خلاصه مقاله:

In this completely novel and applied study, for the first time, it was investigated and introduced three new models for process design of recovery of inactivated refinery Platinum catalysts based on combined technologies of ozone, ultrasonic, infrared lamp and laser ray. The use of these technologies can increase catalyst recovery. Presence of ozone (and other oxidizing species such hydroxyl radicals) can be increase the oxidation rate of coke on catalyst surfaces. Applying ultrasonic, can help to increase coke oxidation rate in aqueous solution. Also the use of infrared lamp for drying extra moisture of catalysts and heating them, have various advantages; such as high safety, cleanness, cost-effectiveness, good thermal control, providing a balanced heat and without the need for additional accessories. Applying laser ray can improve and modify catalyst surface properties such resistance against corrosion, .increasing mechanical strength and even increasing and improving active sits and porosity on catalyst surfaces

کلمات کلیدی:

model, process design, Platinum, catalyst, recovery

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