

عنوان مقاله:

Oxidative desulfurization of diesel using ozone as the oxidant

محل انتشار:

سومین کنفرانس بین المللی فناوری های جدید در صنایع نفت، گاز و پتروشیمی (سال: 1400)

تعداد صفحات اصل مقاله: 6

نویسندگان:

Mohsen Adhami - School of Chemical Engineering, Iran University of Science and Technology (IUST), Tehran, Iran

Salman Movahedirad - School of Chemical Engineering, Iran University of Science and Technology (IUST), Tehran, Iran

Mohammad Amin Sobati - School of Chemical Engineering, Iran University of Science and Technology (IUST), Tehran, Iran

خلاصه مقاله:

The purpose of this study is to design a proper process for the sulfur reduction of diesel fuel using Ozon-assisted oxidative desulfurization. The diesel fuel with ۰.۱۴ (wt.%) has been used for this purpose. In this regard, oxidation of diesel-acetonitrile mixture has been carried out in the two-neck roundbottom flask. After the oxidation process, the sulfur-containing components have been removed by extraction with acetonitrile. Different scenarios have been examined and it has been shown that the best desulfurization is obtained when two-stage oxidation of fuel and solvent is carried out. The best desulfurization rate is about ۷۶%. The effect of temperature has been also studied and results have been showed that, there is an optimum temperature in the gas-phase oxidation.

کلمات کلیدی:

Oxidative desulfurization, Gaseous oxidants, Ozone, Acetonitrile

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1472540>

