Title (en)

METHOD FOR REMOVING CHLORINE FROM WASTE OIL FRACTIONS CONTAINING HIGH CONTENT OF CHLORINE USING SOLID ACID MATERIAL

Title (de)

VERFAHREN ZUR ENTFERNUNG VON CHLOR AUS ABFALLÖLFRAKTIONEN MIT HOHEM CHLORGEHALT UNTER VERWENDUNG VON FESTEM SÄUREMATERIAL

Title (fr)

PROCÉDÉ D'ÉLIMINATION DU CHLORE PRÉSENT DANS DES FRACTIONS D'HUILE USAGÉE CONTENANT UNE TENEUR ÉLEVÉE EN CHLORE À L'AIDE D'UN MATÉRIAU ACIDE SOLIDE

Publication

EP 4105299 A4 20231122 (EN)

Application

EP 20939068 A 20201111

Priority

- KR 20200067096 A 20200603
- KR 20200124533 A 20200925
- KR 2020015786 W 20201111

Abstract (en)

[origin: EP4105299A1] Provided is a technology of removing 90% or more chlorine by treating an oil fraction having a high Cl content at a high temperature using a solid acid catalyst. The dechlorinated oil fraction may be introduced to a refinery process and converted into a fuel or a chemical product.In the presentembodiment, the solid acid catalyst and the oil fraction having a high Cl content are mixed and then chlorine is removed by a heat treatment at a high temperature. Main impurities such as S, N, and O and Na, Ca, Fe, and the like which may act as a catalyst poison in the catalyst reactions of a refinery process are removed simultaneously with the process of removing Cl.By the treatment at a high temperature in a process of removing Cl in an oil fraction having a high Cl content by the solid acid material, a reduction effect of Cl and N, S, O, and metal impurities may be increased.Since a waste solid acid material (waste zeolite, waste clay, and the like) which is discarded after use in a petrochemical process may be used as a solid acid material for Cl removal by a simple treatment, it is preferred from an environmental point of view.

IPC 8 full level

C10G 17/095 (2006.01); **C10G 1/00** (2006.01); **C10G 1/10** (2006.01); **C10G 7/00** (2006.01)

CPC (source: CN EP US)

C10G 1/10 (2013.01 - EP US); **C10G 17/095** (2013.01 - CN EP US); C10G 2300/1003 (2013.01 - US); C10G 2300/202 (2013.01 - CN EP US); C10G 2300/205 (2013.01 - EP US); C10G 2300/301 (2013.01 - US); C10G 2300/4012 (2013.01 - US)

Citation (search report)

- [I] US 2016264874 A1 20160915 - NARAYANASWAMY RAVICHANDER [IN], et al
- [I] US 5744668 A 19980428 - ZHOU DINLI [CN], et al
- [I] US 2019270939 A1 20190905 - JAVEED MOHAMMAD [IN], et al
- See references of WO 2021246588A1

Designated contracting state (EPC)

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DOCDB simple family (publication)

EP 4105299 A1 20221221; **EP 4105299 A4 20231122**; CN 114616309 A 20220610; US 2023174872 A1 20230608; WO 2021246588 A1 20211209

DOCDB simple family (application)

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