

Title (en)

A process for removing sulfur compounds from hydrocarbon streams

Title (de)

Verfahren zur Entfernung von Schwefelverbindungen aus Kohlenwasserstoffbeschickungen

Title (fr)

Procédé d'extraction de composés de soufre de flux d'hydrocarbures

Publication

EP 1270704 A1 20030102 (EN)

Application

EP 01115343 A 20010626

Priority

EP 01115343 A 20010626

Abstract (en)

A process for removing H₂S and mercaptans from a hydrocarbon stream is disclosed. A hydrocarbon stream such as a LPG stream is contacted with a weakly basic stream, e.g., a sodium bicarbonate stream in order to extract the H₂S and mercaptans from the hydrocarbon stream into the basic stream. The basic stream is now treated in a reactor containing a sulfide oxidizing microorganism in order to convert the H₂S to sulfur and the mercaptans to disulfides. Finally, the sulfur and disulfides are separated from the basic aqueous stream which can be recycled and used to treat a fresh hydrocarbon stream. The treated hydrocarbon stream is purified to the point that it passes the copper strip test, while the purified basic stream contains less than 0.08 g/l of elemental sulfur. <IMAGE>

IPC 1-7

C10G 19/02; C10G 19/08; C10G 32/00

IPC 8 full level

C10G 19/02 (2006.01); **C10G 19/08** (2006.01); **C10L 3/12** (2006.01)

CPC (source: EP)

C10G 19/02 (2013.01); **C10G 19/08** (2013.01); **C10L 3/12** (2013.01)

Citation (search report)

- [X] US 6224750 B1 20010501 - PITTMAN RUSTY MARK [US], et al
- [A] GB 912926 A 19621212 - UNIVERSAL OIL PROD CO
- [E] US 6306288 B1 20011023 - PITTMAN RUSTY [US], et al
- [A] DATABASE WPI Section Ch Week 200011, Derwent World Patents Index; Class H01, AN 2000-125489, XP002183465

Cited by

FR2875236A1; EP3034157A1; CN107466249A; GB2485824A; GB2485824B; US10543458B2; WO2016131930A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

EP 1270704 A1 20030102; EP 1270704 B1 20060927; AT E340837 T1 20061015; DE 60123404 D1 20061109

DOCDB simple family (application)

EP 01115343 A 20010626; AT 01115343 T 20010626; DE 60123404 T 20010626