

Title (en)

PROCESS, METHOD, AND SYSTEM FOR REMOVING HEAVY METALS FROM FLUIDS

Title (de)

PROZESS, VERFAHREN UND SYSTEM ZUR ENTFERNUNG VON SCHWERMETALLEN AUS FLUIDEN

Title (fr)

PROCÉDÉ, MÉTHODE ET SYSTÈME POUR RETIRER DES MÉTAUX LOURDS DE LIQUIDES

Publication

**EP 2616526 A2 20130724 (EN)**

Application

**EP 11825724 A 20110909**

Priority

- US 88399510 A 20100916
- US 88397110 A 20100916
- US 88357810 A 20100916
- US 2011051033 W 20110909

Abstract (en)

[origin: WO2012036986A2] Trace element levels of heavy metals such as mercury in crude oil are reduced by contacting the crude oil with an iodine source, generating a water soluble heavy metal complex for subsequent removal from the crude oil. In one embodiment, the iodine source is generated in-situ in an oxidation-reduction reaction, by adding the crude oil to an iodine species having a charge and a reductant or an oxidant depending on the charge of the iodine species. In one embodiment with an iodine species having a positive charge and a reducing reagent, a complexing agent is also added to the crude oil to extract the heavy metal complex into the water phase to form water soluble heavy metal complexes which can be separated from the crude oil, for a treated crude oil having reduced levels of heavy metals.

IPC 8 full level

**C10G 29/26** (2006.01); **B01D 53/64** (2006.01); **C01G 33/00** (2006.01); **C10G 17/07** (2006.01); **C10G 21/06** (2006.01); **C10G 29/02** (2006.01); **C10G 29/12** (2006.01); **C10G 33/00** (2006.01)

CPC (source: EP)

**C01B 7/14** (2013.01); **C01B 9/06** (2013.01); **C10G 17/07** (2013.01); **C10G 21/06** (2013.01); **C10G 29/02** (2013.01); **C10G 29/12** (2013.01); **C10G 29/26** (2013.01); **C10G 33/00** (2013.01); **C10G 2300/1033** (2013.01); **C10G 2300/104** (2013.01); **C10G 2300/1044** (2013.01); **C10G 2300/1055** (2013.01); **C10G 2300/205** (2013.01); **C10G 2300/4037** (2013.01)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

**WO 2012036986 A2 20120322**; **WO 2012036986 A3 20120614**; AU 2011302353 A1 20130228; AU 2011302353 B2 20150122; CA 2807839 A1 20120322; CN 103097495 A 20130508; EP 2616526 A2 20130724; EP 2616526 A4 20170215; SG 188484 A1 20130430

DOCDB simple family (application)

**US 2011051033 W 20110909**; AU 2011302353 A 20110909; CA 2807839 A 20110909; CN 201180044397 A 20110909; EP 11825724 A 20110909; SG 2013017694 A 20110909