

Title (en)

METHOD FOR HYDROTREATING DIESEL FUEL IN REACTORS IN SERIES, COMPRISING HYDROGEN RECIRCULATION

Title (de)

VERFAHREN ZUR HYDRODESULFURIERUNG VON DIESELKRAFTSTOFF IN SERIENREAKTOREN MIT WASSERSTOFFREZIRKULATION

Title (fr)

PROCÉDÉ D'HYDROTRAITEMENT D'UN GAZOLE DANS DES RÉACTEURS EN SÉRIE AVEC RECYCLAGE D'HYDROGÈNE.

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Application

EP 14802334 A 20141106

Priority

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- EP 2014073907 W 20141106

Abstract (en)

[origin: WO2015078674A1] The invention relates to a method for hydrotreating a hydrocarbon feedstock comprising sulphur and nitrogen compounds, which comprises the following steps: a) separating the hydrocarbon feedstock into a heavy fraction and a light fraction; b) performing a first hydrotreatment step by placing the heavy fraction and a stream of hydrogen in contact with a first hydrotreatment catalyst Z1 such as to produce a first desulphurised effluent comprising hydrogen, H₂S and NH₃; c) separating the first effluent into a first gaseous fraction comprising hydrogen, H₂S and NH₃, and a first liquid fraction; d) purifying the first gaseous fraction to produce a hydrogen-enriched stream; e) mixing the light fraction with the first liquid fraction obtained in step c) to produce a mixture; f) performing a second hydrotreatment step by placing the mixture obtained in step e) and the hydrogen-enriched stream produced in step d) in contact with a second hydrotreatment catalyst Z2 in order to produce a second desulphurised effluent comprising hydrogen, NH₃ and H₂S; g) separating the second effluent into a second gaseous fraction comprising hydrogen, H₂S and NH₃ and a second liquid fraction; and h) recirculating at least one portion of the second gaseous fraction to step b) as a hydrogen stream.

IPC 8 full level

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CPC (source: EP RU US)

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Cited by

US10604709B2; US11136513B2; US11795406B2; US10533141B2; US10563132B2; US10563133B2; US10584287B2; US10655074B2; US10836966B2; US11203722B2; US11441084B2; US11447706B2; US11530360B2

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