

Title (en)

PROCESS AND SYSTEM FOR MAKING CYCLOPENTADIENE AND/OR DICYCLOPENTADIENE

Title (de)

VERFAHREN UND SYSTEM ZUR HERSTELLUNG VON CYCLOPENTADIEN UND/ODER DICYCLOPENTADIEN

Title (fr)

PROCÉDÉ ET SYSTÈME DE FABRICATION DE CYCLOPENTADIÈNE ET/OU DE DICYCLOPENTADIÈNE

Publication

**EP 3371132 A4 20181017 (EN)**

Application

**EP 16862672 A 20161007**

Priority

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- EP 16153728 A 20160202
- US 2016056038 W 20161007

Abstract (en)

[origin: WO2017078902A1] Processes and systems for making cyclopentadiene and/or dicyclopentadiene include converting acyclic C5 hydrocarbon(s) into CPD in a first reactor to obtain a product mixture, washing the product mixture with a wash oil, separating the washed product mixture in a separation sub-system such as compression train to obtain a C5-rich fraction comprising CPD, dimerizing the C5-rich fraction in a dimerization reactor to obtain a product effluent, followed by separating the product effluent to obtain a DCPD-rich fraction. Wash oil can be recovered and recycled. Multiple-stage of dimerization and separation steps can be used to obtain multiple DCPD-rich fractions of various purity and quantity. C5-rich fractions from various stages of the process may be recycled to the first reactor, or converted into mogas components after selective hydrogenation. C5-rich fractions and mogas components may be optionally separated to produce value-adding chemicals.

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

- [Y] WO 8904818 A1 19890601 - MOBIL OIL CORP [US]
- [Y] US 4886926 A 19891212 - DESSAU RALPH M [US], et al
- [Y] DE 2535809 A1 19760304 - SHELL INT RESEARCH
- [Y] US 2438400 A 19480323 - HETZEL STANFORD J, et al
- [Y] US 2438404 A 19480323 - HETZEL STANFORD J, et al
- [Y] US 2003100809 A1 20030529 - TIAN BAOLIANG [CN], et al
- [Y] JP 2001247490 A 20010911 - NIPPON PETROCHEMICALS CO LTD
- [Y] JP S6210025 A 19870119 - NIPPON ZEON CO
- [Y] RU 2463284 C1 20121010 - FEDERAL NOE G BJUDZHETNOE OBRAZOVATEL NOE UCHREZHDENIE VYSSHEGO PROFESSIONAL NOGO OBRAZOVANIJA KZ NA [RU]
- [Y] US 4140587 A 19790220 - PARET GIANCARLO, et al
- [Y] US 3674883 A 19720704 - SCHLEPPINGHOFF BERNHARD, et al
- [Y] V. SH. FEL'DBLYUM ET AL: "Cyclization and dehydrocyclization of C5 hydrocarbons over platinum nanocatalysts and in the presence of hydrogen sulfide", DOKLADY. CHEMISTRY, vol. 424, no. 2, February 2009 (2009-02-01), RU, pages 27 - 30, XP055267350, ISSN: 0012-5008, DOI: 10.1134/S0012500809020025
- See references of WO 2017078902A1

Designated contracting state (EPC)

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DOCDB simple family (application)

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