

Title (en)

ISOMERIZATION AND CATALYTIC ACTIVATION OF PENTANE-ENRICHED HYDROCARBON MIXTURES

Title (de)

ISOMERISIERUNG UND KATALYTISCHE AKTIVIERUNG VON MIT PENTAN ANGEREICHERTEN KOHLENWASSERSTOFFGEMISCHEN

Title (fr)

ISOMÉRISATION ET ACTIVATION CATALYTIQUE DE MÉLANGES D'HYDROCARBURES ENRICHIS EN PENTANE

Publication

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Application

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- US 201962838081 P 20190424
- US 201962838057 P 20190424
- US 201962838086 P 20190424
- US 202016855333 A 20200422
- US 202016855312 A 20200422
- US 202016855367 A 20200422
- US 202016855350 A 20200422
- US 2020029702 W 20200424

Abstract (en)

[origin: WO2020219797A1] Systems operable to produce liquid transportation fuels by converting a hydrocarbon feed stream comprising both isopentane and n-pentane. The system comprises a first separator operable to separate a hydrocarbon feed stream into a first fraction that predominantly comprises isopentane and a second fraction that predominantly comprises n-pentane and some C6 paraffins. An isomerization reactor isomerizes the second fraction to convert at least a portion of the n-pentane to isopentane. The resulting isomerization effluent is combined with the hydrocarbon feed stream, allowing the isopentane produced in the isomerization reactor to be separated into the first fraction in the first separator. An activation reactor catalytically activates the first fraction to produce an activation effluent comprising olefins and aromatics. Some embodiments additionally comprise either an oligomerization reactor or and alkylation reactor operable to further upgrade the activation effluent, thereby enhancing yields.

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

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- [A] US 2010081854 A1 20100401 - CROSS JR WILLIAM M [US], et al
- See references of WO 2020219797A1

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