

Title (en)

PROCESS AND APPARATUS FOR PRODUCING LIGHT OLEFINS

Title (de)

VERFAHREN UND VORRICHTUNG ZUR HERSTELLUNG VON LEICHTEN OLEFINEN

Title (fr)

PROCEDE ET APPAREIL PERMETTANT DE PRODUIRE DES OLEFINES LEGERES

Publication

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Application

EP 95914373 A 19950331

Priority

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Abstract (en)

[origin: WO9527019A1] A process and apparatus for catalytically converting hydrocarbons to light olefins with a short contact circulating fluidized bed reactor system. The process comprises the steps of feeding a hydrocarbon feedstock into a reaction zone (1) containing a solid catalyst, contacting the hydrocarbon feedstock in the reaction zone (1) with the catalyst under conditions which favour catalytic conversion of hydrocarbons into light olefins, separating the reaction products obtained from the reaction zone (1) after catalytic conversion, recovering the catalyst, and regenerating the deactivated catalyst in a regenerator (3). According to the invention, the hydrocarbon feedstock is contacted with the catalyst in a circulating fluidized bed reactor (1) at a residence time in the range of 0.1 to 3 seconds. The process is used for preparing propylene, butylenes and pentenes and high octane, low benzene gasoline fraction by catalytic conversion of LGO, HGO, VGO or naphta, using conventional or improved FCC catalysts. The process can also be used for preparing propylene, isobutylene or isoamylene rich products by catalytic dehydrogenation from propane, isobutane or naphta, respectively, using conventional or improved dehydrogenation catalysts for fluidized bed service.

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Cited by

CN114502268A; GB2463602A; GB2463602B; WO2024118432A1; WO2009011479A1; WO2021019327A1; US7442739B1; US8691076B2

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