

Title (en)

PREPARATION OF BUTADIENE BY OXIDATIVE DEHYDROGENATION OF N-BUTENE AFTER PRECEDING ISOMERIZATION

Title (de)

HERSTELLUNG VON BUTADIEN DURCH OXIDATIVE DEHYDRIERUNG VON N-BUTEN NACH VORHERGEHENDER ISOMERISIERUNG

Title (fr)

PRODUCTION DE BUTADIÈNE PAR DÉSHYDROGÉNATION OXYDATIVE DE N-BUTÈNE APRÈS ISOMÉRISATION PRÉALABLE

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Application

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Abstract (en)

[origin: CA2933757A1] The invention relates to a method for preparing 1,3-butadiene by heterogeneously catalyzed oxidative dehydrogenation of n-butene, wherein a butene mixture is provided that contains at least 2-butene. The problem addressed by the invention is to provide a method for economic production of 1,3-butadiene on a large industrial scale, being provided with a butene mixture as raw material having a 1-butene content therein that is relatively low in comparison to the 2-butene content and wherein the ratio of 1-butene to 2-butene is subject to fluctuations. The solution to this problem is achieved by a two-step procedure, wherein in a first step the provided butene mixture is subjected to a heterogeneously catalyzed isomerization, obtaining an at least partially isomerized butene mixture, and wherein subsequently in a second step the at least partially isomerized butene mixture obtained in the first step is subjected to oxidative dehydrogenation. The two-step process results in higher butadiene yields compared to the one-step process.

IPC 8 full level

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