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(54) Title: SUPPORTED OXIDE CATALYST COMPRISING TANTALUM WITH HIGH YIELD IN THE PRODUCTION OF 1,3-BUTADIENE

(57) Abstract: The present invention relates to a supported oxide catalyst comprising tantalum in an amount in a range of from 0.1 to 10 wt.%, calculated as Ta_2O_5 and based on the total weight of the supported oxide catalyst, the supported oxide catalyst having an average pore diameter in a range of from 180 to 245 Å. Moreover, the invention relates to a catalyst reaction tube for the production of 1,3-butadiene comprising at least one packing of the supported oxide catalyst as defined herein, to a fixed-bed reactor for the production of 1,3- butadiene comprising one or more of the catalyst reaction tubes as defined herein, and to a plant for the production of 1,3-butadiene comprising one or more of the fixed-bed reactors as defined herein. The invention also relates to a process for the production of 1,3-butadiene as defined herein and to a process for the production of the supported oxide catalyst as defined herein.