Title (en)

METHOD FOR ELECTRO-DECARBOXYLATION OF AT LEAST ONE ALKENE WITH CARBON DIOXIDE CO2 IN THE PRESENCE OF HYDROGEN H2

Title (de)

VERFAHREN ZUR ELEKTRODICARBOXYLIERUNG VON MINDESTENS EINEM ALKEN MIT KOHLENDIOXID CO2 IN GEGENWART VON WASSERSTOFF H2

Title (fr)

PROCÉDÉ D'ÉLECTRO-DICARBOXYLATION D'AU MOINS UN ALCÈNE AVEC DU DIOXYDE DE CARBONE CO2 EN PRÉSENCE D'HYDROGÈNE H2

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Application

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Abstract (en)

[origin: WO2021005216A1] The present invention relates to a method for the electro-decarboxylation of at least one diene with carbon dioxide CO2 in the presence of hydrogen H2, forming at least one unsaturated dicarboxylic acid, wherein the reaction is carried out in a reactor comprising at least one cathode as the working electrode for the cathodic activation of CO2, at least one anode as the counter-electrode for the anodic oxidation of H2, with a volumetric ratio of hydrogen H2 to carbon dioxide CO2 between 1:1 and 1:3, a total pressure pg in the reactor between 2 and 4 MPa, particularly preferably between 3 and 4 MPa, and an average current density j between 5 and 15 mA/cm2, particularly preferably between 10 and 12.5 mA/cm2.

IPC 8 full level

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