

Title (en)  
METALLIC COMPOUND FIXED TO A SUPPORT, METHOD FOR PRODUCTION AND USE OF SAID COMPOUND IN HYDROCARBON METATHESIS REACTIONS

Title (de)  
METALLISCHE VERBINDUNG AUF EINEM TRÄGER, VERFAHREN ZU IHRER HERSTELLUNG SOWIE IHRE VERWENDUNG IN METATHESEREAKTIONEN VON KOHLENWASSERSTOFFEN

Title (fr)  
COMPOSE METALLIQUE FIXE SUR UN SUPPORT, PROCEDE DE PREPARATION ET UTILISATION DU COMPOSE DANS DES REACTIONS DE METATHESE D'HYDROCARBURE

Publication  
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Application  
**EP 04742338 A 20040324**

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Abstract (en)  
[origin: WO2004089541A2] The invention relates to a supported metal compound, comprising a support made from aluminium oxide to which a tungsten hydride is grafted. The support may be selected from the homogeneous supports with a composition based on aluminum oxide and from heterogeneous supports made from aluminium oxide with aluminum oxide essentially on the surface of said support. The support may in particular comprise aluminium oxide, mixed aluminium oxides and modified aluminium oxides particularly comprising one or more elements of groups 15 to 17 of the periodic table of the elements, such as phosphorus, sulphur, fluorine or chlorine. A support made from porous, non-porous or mesoporous aluminas is preferred. The degree of oxidation of the tungsten may have a value of from 2 to 6. The tungsten atom is generally bonded to one or several hydrogen atoms and optionally to one or several hydrocarbon groups. According to the invention, the compound may be prepared by a dispersion step and grafting of a tungsten organometallic precursor to the support made from aluminium oxide then hydrogenation of the resulting product. The product may be used as catalyst in reactions of cleavage and recombination of hydrocarbons, particularly in hydrocarbon metathesis reactions most particularly of alkanes. The product has a surprising, extremely high catalytic activity in this type of reaction and in particular, a high selectivity for the formation of n-alkanes with relation to iso-alkanes.

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