

Title (en)
PROCESS FOR PREPARING STARTING COMPOUNDS INTENDED FOR THE SYNTHESIS OF AN AMMINE METAL BOROHYDRIDE

Title (de)
VERFAHREN ZUR HERSTELLUNG VON AUSGANGSVERBINDUNGEN FÜR DIE SYNTHESE EINES AMINMETALLBORHYDRIDS

Title (fr)
PROCÉDÉ DE PRÉPARATION DE COMPOSÉS DE DÉPART DESTINÉS À LA SYNTHÈSE D'UN BOROHYDRURE DE MÉTAL AMMINE

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Application
EP 22773680 A 20220907

Priority
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• EP 2022074882 W 20220907

Abstract (en)
[origin: EP4144689A1] Process for preparing a metal hydride of formula $A_{x}MH_{x+m}$ and a borane compound BH_3 sub>3</sub>, starting from a product of formula $A_{x}M(BNH)_{x+m}$, wherein: A is an alkali metal, M is a metal different from an alkali metal, $0 \leq x \leq 2m > 0$, the process comprising: a) contacting the product of formula $A_{x}M(BNH)_{x+m}$ with a catalyst comprising a transition metal in solution in an aprotic polar solvent, such as to separate the metal hydride of formula $A_{x}MH_{x+m}$ and a hydrogenated boron nitride compound BNH, b) the synthesis of the borane compound BH_3 sub>3</sub>, from the hydrogenated boron nitride compound BNH, the synthesis comprising: - a digestion reaction of the boron nitride compound BNH in a gaseous atmosphere containing, even consisting in, an anhydrous hydrogen halide acid gas comprising at least one halogen element Y, such as to produce a boron halide BY_3 sub>3</sub>, Y being preferably chlorine Cl, - a hydrodehalogenation of the boron halide, in a hydrogen gas atmosphere to obtain the borane compound BH_3 sub>3</sub>.

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