

Title (en)

CARBONITRIDE POWDER, METHOD FOR PRODUCING SAME, AND USE THEREOF

Title (de)

CARBONITRID-PULVER, VERFAHREN ZU IHRER HERSTELLUNG SOWIE DEREN VERWENDUNG

Title (fr)

POUDRE DE CARBONITRURE, PROCEDE PERMETTANT DE LA PREPARER ET UTILISATION

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Application

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Priority

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Abstract (en)

[origin: WO9834874A1] The present invention relates to a method for producing carbonitride powders of the metals of the fourth, fifth and sixth subgroups of the periodic table of elements by calcination of mixtures of corresponding double oxides or multiple oxides, soot and possibly other carbon-containing compounds in an atmosphere containing nitrogen. The invention also relates to carbonitride powders of the metals of the fourth, fifth and sixth subgroups of the periodic table of elements having a mean particle size d₅₀ of less than 5 µm, oxygen and free carbon contents of less than 0.1 weight percent each, as well as impurities of metals belonging to the iron group amounting to less than 0.15 weight percent. The invention further relates to a two-phase titanium-zirconium-carbonitride powder with a mean particle size d₅₀ of less than 5 µm, and a single-phase titanium-zirconium-carbonitride powder with an equimolar Zr:Ti ratio, a nitrogen content of up to 10 weight percent nitrogen, and a mean particle size d₅₀ of less than 5 µm. In addition, the invention relates to the use of said carbonitride powders.

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