Title (en)

TITANIUM-BASE CERMET, COATED CERMET, AND CUTTING TOOL

Title (de)

CERMET AUF TITANBASIS, BESCHICHTETER CERMET UND SCHNEIDWERKZEUG

Title (fr)

CERMET À BASE DE TITANE, CERMET ENROBÉ ET OUTIL TRANCHANT

Publication

EP 2177639 B1 20200304 (EN)

Application

EP 08791644 A 20080725

Priority

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- JP 2007195910 A 20070727
- JP 2007306887 A 20071128

Abstract (en)

[origin: EP2177639A1] There is provided a Ti-based cermet suitable for a cutting tool having high fracture resistance and wear resistance. The Ti-based cermet 1 is composed of at least one kind of element selected from Co and Ni, and one or more kinds of substances selected from carbides, nitrides, and carbonitrides of one or more kinds of metals selected from Group 4, Group 5, and Group 6 metals of the periodic table, each of which is composed mainly of Ti, and 0.1 to 0.5% by mass of Mn. In a scanning electron microscope (SEM) photograph of an arbitrary cross-section of the Ti-based cermet, a surface region is formed in which a hard phase 2 whose interior comprises a first hard phase 2a and a second hard phase 2b, and a binder phase 3 composed mainly of at least one kind of element selected from Co and Ni are observed, and the second hard phase 2b looks whiter than the first hard phase 2a, and the second hard phase 2b whose content percentage is not less than 90% by area is observed in a surface part.

IPC 8 full level

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CPC (source: EP)

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Cited by

EP2752263A4; EP2687310A4; US8808871B2

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