

Title (en)

Quasicrystalline bond coating and its use as a thermal barrier coating

Title (de)

Quasikristalline Verbindung und deren Verwendung als Wärmedämmschicht

Title (fr)

Revêtement quasi-cristallin et son utilisation comme revêtement de barrière thermique

Publication

EP 1837484 A2 20070926 (DE)

Application

EP 06006053 A 20060323

Priority

EP 06006053 A 20060323

Abstract (en)

Compounds of formula: $Al_wCo_xM_y$ where w, x, y are new. M is Ni and/or Cr and at least 30 mass% of the compound has a quasi-crystalline structure. $W = 70 - 76$ and $w + x + y = 100$. Independent claims are included for: (A) coatings made from or containing the compounds; (B) coating systems containing a coating made from the compounds; (C) multi-layer coating systems containing two or more of the coating systems; (D) use of the compounds as heat-insulating coatings for components subjected to high temperature, especially turbine steam inlets (333) and blades (357); and (E) use of compounds containing aluminum and manganese, at least 30 mass% of the compound having a quasi-crystalline structure, for the same purpose.

Abstract (de)

Die Erfindung betrifft eine Verbindung der nominalen atomaren Zusammensetzung: $Al_wCo_xM_y$ wobei M wenigstens eines der Elemente ausgewählt aus der Gruppe Ni, Cr ist und wenigstens 30 Massenprozent der Verbindung als quasikristalline Struktur oder als Approximat vorliegen, welches dadurch gekennzeichnet ist, dass $70 \leq w \leq 76$ und $w + x + y = 100$ ist.

IPC 8 full level

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CPC (source: EP US)

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Cited by

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Designated extension state (EPC)

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