

Title (en)

COATING SYSTEM FOR A COMPONENT HAVING A THERMAL BARRIER COATING, A METALLIC BONDING LAYER AND A METALLIC EROSION RESISTANT COATING, METHOD FOR MANUFACTURING AND METHOD FOR USING SAID COMPONENT

Title (de)

SCHICHTSYSTEM FÜR EIN BAUTEIL MIT WÄRMEDÄMMSSCHICHT, EINER METALLISCHEN ANBINDUNGSSCHICHT UND EINER METALLISCHEN EROSIONSSCHUTZSCHICHT, VERFAHREN ZUR HERSTELLUNG UND VERFAHREN ZUM BETREIBEN EINER DAMPTURBINE

Title (fr)

COMPOSANT AYANT UN REVÊTEMENT AVEC UNE BARRIÈRE THERMIQUE, UNE COUCHE DE LIAISON MÉTALIQUE ET UNE COUCHE MÉTALLIQUE RESISTANTE À L'EROSION, PROCÉDÉ DE MANUFACTURE ET MÉTHODE POUR SA UTILISATION

Publication

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Application

EP 06725133 A 20060317

Priority

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Abstract (en)

[origin: EP1734145A1] Gas- or steam-turbine component has a substrate layer (4) under a metal bonding layer (10), a ceramic heat insulation layer (7) and an upper anti-erosion layer (13). The materials making up the bonding layer and anti-erosion layer are the same or of nearly the same composition. Metal bonding layer and anti-erosion layer are an MCrAlX alloy. The bonding layer has 29-31% wt. Nickel, 27-29% wt. Chromium, 7-8% wt. Aluminum, 0.5-0.7% wt. Yttrium and 0.3-0.7% wt. Silicon; the residue is cobalt. The anti-erosion layer consists of 11-13% wt cobalt, 20-22% wt. Chromium, 10.5-11.5% aluminum, 0.3-0.5% Yttrium and 1.5-2.5% Wt. Rhenium; the residue is Nickel. Also claimed is a process to operate a commensurate steam turbine.

IPC 8 full level

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CPC (source: EP US)

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