Title (en)

Members coated with composite oxide coatings for preventing the permeation of hydrogen isotopes and a process for producing such members

Title (de)

Elemente beschichtet mit wasserstoffundurchlässigen Oxidverbundschichten und Verfahren zur Herstellung von solchen Elementen

Title (fr)

Eléments revêtus de couches d'oxydes composites imperméables à l'hydrogène et procédé de fabrication de ces éléments

Publication

EP 1236813 A3 20030813 (EN)

Application

EP 02090080 A 20020228

Priority

JP 2001058253 A 20010302

Abstract (en)

[origin: EP1236813A2] The surface of a chemical densified coating formed on the surface of a stainless steel substrate is coated or sprayed with an aqueous solution based on chromic acid and a material capable of forming an amorphous inorganic substance upon sintering or the chemical densified coating is dipped in the aqueous solution and recovered; the chemical densified coating is then sintered by heating at 250 - 750 DEG C so that the pores and cracks in the chemical densified coating are filled with the fine particles of a composite of chromium oxide and an amorphous inorganic material and that the surface of the chemical densified coating is covered with a layer of such fine particles.

IPC 1-7

C23C 28/04; C23C 4/18; C04B 41/52; C23C 30/00; C23C 20/00

IPC 8 full level

C23C 22/24 (2006.01); **C23C 18/12** (2006.01); **C23C 20/00** (2006.01); **C23C 22/82** (2006.01); **C23C 26/00** (2006.01); **C23C 28/04** (2006.01); **C23C 30/00** (2006.01)

CPC (source: EP)

C23C 18/1216 (2013.01); **C23C 18/1241** (2013.01); **C23C 26/00** (2013.01); **C23C 30/00** (2013.01)

Citation (search report)

- [X] US 5820976 A 19981013 - KAMO LLOYD [US]
- [A] US 3956531 A 19760511 - CHURCH PETER K, et al
- [A] US 5360634 A 19941101 - KAMO LLOYD [US]

Cited by

CN107217281A; US11111108B2

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

EP 1236813 A2 20020904; **EP 1236813 A3 20030813**; **EP 1236813 B1 20110525**; JP 2002256450 A 20020911; JP 4863181 B2 20120125

DOCDB simple family (application)

EP 02090080 A 20020228; JP 2001058253 A 20010302