Title (en)

SUBSTRATES WITH IMPROVED OXIDATION RESISTANCE

Title (de)

SUBSTRATEN MIT ERHÖHTER OXIDATIONSBESTÄNDIGKEIT

Title (fr)

SUBSTRATS POSSEDANT UNE RESISTANCE ACCRUE A L'OXYDATION

Publication

EP 1019920 A4 20010228 (EN)

Application

EP 98957311 A 19980930

Priority

- US 9820404 W 19980930
- US 94304797 A 19971001

Abstract (en)

[origin: WO9917307A1] An alloy article having improved oxidation resistance and biaxially textured surfaces formed by thermo-mechanical techniques has up to 60 atomic % nickel, 0.1 to 25 atomic % of an oxide former selected from Mg, Al, Ti, Cr, Ga, Ge, Zr, Hf, Y, Si, Pr, Eu, Gd, Tb, Dy, Ho, Lu, Th, Er, Tm, Be, Ce, Nd, Sm, Yb, La, and mixtures thereof, with the balance copper. The surface smoothness of the article may be improved by thermomechanical techniques without impairing its surface texture. The CTE of the article may be reduced and its mechanical strength increased by incorportation of additional materials into the article without impairing its surface texture. The alloy article is useful as a conductive substrate for superconducting composites where the substrate is coated with a superconducting oxide. Methods of producing the alloy article by melting and sheath and core thechniques are also disclosed.

IPC 1-7

H01B 12/02; B32B 15/04; B32B 18/00; C04B 35/622; B22F 1/00; B22F 3/18; B22F 7/02; H01L 39/24; C04B 35/00

IPC 8 full level

B22F 7/08 (2006.01); **B32B 15/04** (2006.01); **B32B 18/00** (2006.01); **C22C 9/00** (2006.01); **C22C 9/06** (2006.01); **C22C 19/03** (2006.01); **C22C 32/00** (2006.01); **C22F 1/00** (2006.01); **C22F 1/08** (2006.01); **H01B 12/06** (2006.01); **H01B 13/00** (2006.01); **H01L 39/24** (2006.01)

CPC (source: EP)

B22F 7/08 (2013.01); **C22C 9/06** (2013.01); **C22C 32/0021** (2013.01); **H10N 60/0576** (2023.02); C22C 2204/00 (2013.01)

Citation (search report)

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- [A] PATENT ABSTRACTS OF JAPAN vol. 017, no. 309 (C - 1070) 14 June 1993 (1993-06-14)
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- See references of WO 9917307A1

Designated contracting state (EPC)

DE ES FR GB IT NL SE

DOCDB simple family (publication)

WO 9917307 A1 19990408; AU 1359799 A 19990423; AU 740508 B2 20011108; CA 2305646 A1 19990408; EP 1019920 A1 20000719; EP 1019920 A4 20010228; JP 2001518681 A 20011016; NZ 504011 A 20010928

DOCDB simple family (application)

US 9820404 W 19980930; AU 1359799 A 19980930; CA 2305646 A 19980930; EP 98957311 A 19980930; JP 2000514282 A 19980930; NZ 50401198 A 19980930