

Title (en)  
Iron-nickel alloy and cold-rolled strip with cubic texture

Title (de)  
Eisen-Nickel-Legierung und kaltgewalztes Band mit kubischer Textur

Title (fr)  
Alliage fer-nickel et bande laminée à froid à texture cubique

Publication  
**EP 0792943 B1 20010816 (FR)**

Application  
**EP 97400203 A 19970129**

Priority  
FR 9602404 A 19960227

Abstract (en)  
[origin: EP0792943A1] Iron-nickel alloy has the composition (by wt.): 30-85%Ni + Co, 0-10% Co + Cu + Mn, 0-4% Mo + W + Cr, 0-2% V + Si, 0-1% Nb + Ta, 0.003-0.05% C, 0.003-0.15% Ti, 0.003-0.15% Ti + Zr + Hf, 0.001-0.015% (exclusive) S + Se + Te, 0-1% Nb + Ta + Ti + Al, balance Fe and impurities. Also claimed are: (i) a method of producing a cubic textured cold rolled strip of the above alloy; and (ii) a method of producing a toric magnetic core of the above alloy. Also claimed are: (i) a cold rolled strip of the above iron-nickel alloy, having a cubic recrystallisation texture of (100)(001) type; (ii) use of this strip for making a shadow mask for a CRT; and (iii) a toric magnetic core of the above alloy having a cubic texture. Preferably, the alloy contains 0.005-0.05% Ti, 0.001-0.025% Hf + Zr, 0.002-0.007% S, 0.005-0.02% C, 0.05-1% Mn and  $\leq 0.05\%$  Nb + Ta. The impurities preferably comprise less than 0.001% Mg, less than 0.0025% Ca, less than 0.05% Al, 0.0025% O, less than 0.005% N, less than 0.01% P and less than 0.01% total of Sc, Y, La, Ce, Pr, Nd and Sm.

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**C22C 38/08**; **C22C 19/03**

IPC 8 full level  
**C22C 19/03** (2006.01); **C22C 38/08** (2006.01)

CPC (source: EP US)  
**C22C 19/03** (2013.01 - EP US); **C22C 38/08** (2013.01 - EP US)

Cited by  
CN1057136C; DE10258356B3; EP1156126A1; FR2819825A1; US9309592B2; WO2006064030A1; US10633728B2; US7226515B2; US7419634B2; US7435307B2; WO2015136333A1

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