

Title (en)  
Fe-Si-Al alloy magnetic thin film and method of manufacturing the same.

Title (de)  
Dünner magnetischer Film aus Fe-Si-Al-Legierung und Herstellungsverfahren.

Title (fr)  
Film mince magnétique en alliage Fe-Si-Al et méthode de fabrication.

Publication  
**EP 0417951 B1 19940615 (EN)**

Application  
**EP 90309606 A 19900903**

Priority  
• JP 4952790 A 19900302  
• JP 14026190 A 19900530  
• JP 23662489 A 19890912

Abstract (en)  
[origin: EP0417951A2] A Fe-Si-Al alloy magnetic thin film contains a limited oxygen content in the range 0.17 to 0.46 wt % and has excellent magnetic and mechanical properties. The film is made by sputtering in an inert gas atmosphere containing a controlled concentration of oxygen amounting to 400 to 1500 volumetric ppm if the sputtering target is a cast film, while the oxygen content is reduced by an amount dependent on the initial concentration of oxygen in the sputtering target when the target is a sintered target containing oxygen.

IPC 1-7  
**H01F 10/14; H01F 41/18**

IPC 8 full level  
**C22C 38/00** (2006.01); **C23C 14/40** (2006.01); **H01F 10/14** (2006.01); **H01F 41/18** (2006.01)

CPC (source: EP)  
**H01F 10/145** (2013.01); **H01F 41/18** (2013.01); **H01F 41/183** (2013.01)

Cited by  
US6599846B2

Designated contracting state (EPC)  
DE FR GB

DOCDB simple family (publication)  
**EP 0417951 A2 19910320; EP 0417951 A3 19920122; EP 0417951 B1 19940615**; DE 69009917 D1 19940721; DE 69009917 T2 19941020; JP H03278408 A 19911210; JP H088169 B2 19960129

DOCDB simple family (application)  
**EP 90309606 A 19900903**; DE 69009917 T 19900903; JP 14026190 A 19900530