

Title (en)

Nanocrystalline alloy with insulating coating, magnetic core made thereof, and process for forming insulating coating on a nanocrystalline alloy

Title (de)

Nanokristalline Legierung mit isolierender Beschichtung, daraus hergestellter Magnetkern und Verfahren zur Herstellung einer isolierenden Beschichtung auf der nanokristallinen Legierung

Title (fr)

Alliage nanocristallin muni d'un revêtement isolant, noyau magnétique fabriqué avec cet alliage et procédé pour former un revêtement isolant sur cet alliage nanocristallin

Publication

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Application

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Priority

JP 18003794 A 19940801

Abstract (en)

[origin: EP0695812A1] A nanocrystalline alloy having an insulating coating on at least one of its surfaces is disclosed. The insulating coating is formed from a solution containing at least one insulating material selected from aluminium silicates, lithium silicates and magnesium oxide. By using such a solution, cracking and exfoliation of the insulating coating during the heat treatment for crystallisation of an amorphous alloy can be effectively prevented. Also, an increase in internal stress of the nanocrystalline alloy during the heat treatment can be prevented. Therefore, a nanocrystalline alloy having good insulating properties and magnetic properties suitable for a magnetic core, in particular for a high-frequency magnetic core, can be obtained.

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