

Title (en)

Method of producing low iron loss grain-oriented silicon steel sheet having low-noise and superior shape characteristics

Title (de)

Verfahren zum Herstellen von rauscharmen kornorientierten Siliziumstahlblechern mit niedrigen Wattverlusten und mit hervorragenden Formeigenschaften

Title (fr)

Procédé de fabrication de tôles d'acier au silicium à faible perte dans le fer, à grains orientés et ayant des caractéristiques de bruit faible et de forme supérieure

Publication

EP 0611829 B1 20011128 (EN)

Application

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Priority

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Abstract (en)

[origin: EP0611829A1] A method of producing a low iron loss grain oriented silicon steel sheet which generates improved magnetostrictive characteristics when used as a stacked iron core and low noise when used in a stacked transformer, as well as superior shape characteristics. A grain oriented finish-annealed silicon steel sheet is coated with an insulating film. The surface of the grain oriented silicon steel sheet is irradiated with an electron beam along a multiplicity of spaced paths so as to refine the magnetic domains. The irradiation with the electron beam is conducted continuously or intermittently along a wave-form path on the surface of the grain oriented silicon steel, and the wave-form, such as a zigzag form, has a period length much smaller than the width of the grain oriented silicon steel sheet, and line interconnecting the centers of successive waves extends substantially perpendicularly to the direction of rolling of the grain oriented silicon steel sheet. <IMAGE>

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IPC 8 full level

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CPC (source: EP)

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Cited by

EP1154025A3; EP2602341A4; EP2813593A4; US9761361B2; US6918966B2; JPWO2022050053A1; US6666929B1; KR20210111284A; JPWO2020149330A1; EP3913088A4; WO2020149330A1; WO2022050053A1

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