

Publication

**EP 0870843 A4 19981028**

Application

**EP 96942675 A 19961227**

Priority

- JP 9603877 W 19961227
- JP 34174495 A 19951227

Abstract (en)

[origin: WO9724466A1] A grain-oriented magnetic steel sheet carrying recesses formed by a pulses laser to finely divide magnetic domains on its surface. On the surface of the steel sheet, the recesses are arranged in transverse lines spaced in the longitudinal direction in which the sheet is rolled. The recesses are formed by a rectangular or oval beam of laser and their dimensions are  $50 \mu\text{m} \leq d_l \leq 300 \mu\text{m}$  in the longitudinal direction,  $100 \mu\text{m} \leq d_c \leq 3000 \mu\text{m}$  in the transverse direction, and  $10 \mu\text{m} \leq d \leq 30 \mu\text{m}$  in depth, where  $d_l/d_c < 1$ . The pitches of the recesses are  $3 \mu\text{m} \leq P_l \leq 10 \mu\text{m}$  in the longitudinal direction and  $d_c - 50 \mu\text{m} \leq P_c \leq d_c + 50 \mu\text{m}$  in the transverse direction.

IPC 1-7

**C21D 8/12**

IPC 8 full level

**C21D 8/12** (2006.01); **H01F 41/02** (2006.01)

CPC (source: EP)

**C21D 8/1294** (2013.01); **H01F 41/0233** (2013.01)

Citation (search report)

- No further relevant documents disclosed
- See references of WO 9724466A1

Cited by

CN110093486A; EP1367140A1; CN102639726A; US11293070B2; CN104755637A; CN107109512A; CN100402673C; EP1607487A4; CN102941413A; EP3760745A4; US2021023659A1; RU2757364C1; US11633809B2; EP2813593A4; RU2763025C1; CN110100018A; EP3561088A4; EP2843062A4; RU2767370C1; US10131018B2; US7045025B2; US11313011B2; US7442260B2; US11459634B2; US10804015B2; US11000920B2; US11254994B2; US9761361B2; US10465259B2; US9607744B2; US10815545B2; US11060163B2

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