

Title (en)
A MAGNETIC MARKER

Title (de)
MAGNETISCHES ETIKETT

Title (fr)
MARQUEUR MAGNETIQUE

Publication
EP 0961301 A4 20010718 (EN)

Application
EP 98953009 A 19981111

Priority
• JP 9805069 W 19981111
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Abstract (en)
[origin: WO9926257A1] A small magnetic marker that can be used with high sensitivity both in a generally-called large Barkhausen system and a generally-called high permeability system. The length of the magnetic marker including a soft magnetic material is not more than 70 mm. The soft magnetic material, when an alternating magnetic field of a strength less than 0.20e is applied thereto, causes steep magnetic reversal with a magnetic flux change of more than 8.0×10^{-9} Wb. The variation of magnetic field strength when the soft magnetic material causes a steep magnetization reversal is preferably 0.10e or less.

IPC 1-7
H01F 1/12; **H01F 10/00**; **G08B 13/24**

IPC 8 full level
G08B 13/24 (2006.01); **H01F 1/03** (2006.01); **H01F 1/153** (2006.01)

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G08B 13/2408 (2013.01); **G08B 13/2434** (2013.01); **G08B 13/2442** (2013.01); **H01F 1/0304** (2013.01); **H01F 1/15391** (2013.01)

Citation (search report)
• [XA] GB 2264715 A 19930908 - PITNEY BOWES INC [US]
• [A] US 4660025 A 19870421 - HUMPHREY FLOYD B [US]
• [A] EP 0226812 A2 19870701 - VACUUMSCHMELZE GMBH [DE]
• [A] KAWAMURA H ET AL: "REINFORCED LARGE BARKHAUSEN AND MATTEUCCI EFFECTS AND MAGNETOELASTIC WAVES IN COLD-DRAWN AND THEN TORSION ANNEALED AMORPHOUS WIRES", IEEE TRANSLATION JOURNAL ON MAGNETICS IN JAPAN,US,IEEE INC, NEW YORK, vol. 4, no. 6, 1 June 1989 (1989-06-01), pages 368 - 377, XP000165636, ISSN: 0882-4959
• [A] YANO N ET AL: "LARGE BARKHAUSEN DISCONTINUITY OF CO-FE-SI-B AMORPHOUS FILMS SPUTTERED ON POLYMER SUBSTRATE", IEEE TRANSACTIONS ON MAGNETICS,US,IEEE INC. NEW YORK, vol. 32, no. 5, 1 September 1996 (1996-09-01), pages 4532 - 4534, XP000634060, ISSN: 0018-9464
• See references of WO 9926257A1

Cited by
FR2847064A1; FR2847065A1; GB2585034A; US11166782B1

Designated contracting state (EPC)
DE ES FR IT

DOCDB simple family (publication)
WO 9926257 A1 19990527; DE 69837528 D1 20070524; DE 69837528 T2 20070809; EP 0961301 A1 19991201; EP 0961301 A4 20010718; EP 0961301 B1 20070411; ES 2284215 T3 20071101

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