Title (en)

MAGNETORESISTIVE DEVICES, GIANT MAGNETORESISTIVE DEVICES AND METHODS FOR MAKING SAME

Title (de)

MAGNETORESISTIVE VORRICHTUNG, RIESEN-MAGNETORESISTIVE VORRICHTUNG UND HERSTELLUNGSVERFAHREN

Title (fr)

DISPOSITIFS MAGNETORESISTANTS, DISPOSITIFS MAGNETORESISTANTS GEANTS ET PROCEDES DE FABRICATION ASSOCIES

Publication

EP 1125288 A1 20010822 (EN)

Application

EP 99969526 A 19990924

Priority

- US 9922266 W 19990924
- US 10159998 P 19980924

Abstract (en)

[origin: WO0017863A1] A magnetoresistive sensor (30) and a method of producing the magnetoresistive sensor (30) using electrochemical deposition are disclosed. An insulated substrate (11) is coated with a conductive coating (12) to ready the insulated substrate for electrochemical deposition, electroplating. The conductive coating (112) is latter patterned to prevent the short-circuiting of metallic regions. The conductive coating is electroplated with a metallic layer (131) and a magnetic alloy. The layers are etched to form four separate regions that are interconnected in a wheatstone bridge (473) configuration to form a sensor that can detect changes in an applied magnetic field (100). In some embodiments, the magnetic layers are separated by non-magnetic layers (114) to increase the sensitivity of the sensor. In other embodiments, pole piece elements are added to focus the magnetic field on two of the four regions.

IPC 1-7

G11B 5/37; C25D 3/56; B32B 15/00

IPC 8 full level

G01R 33/09 (2006.01); **B32B 15/00** (2006.01); **C25D 3/56** (2006.01); **G11B 5/37** (2006.01); **G11B 5/39** (2006.01); **H01F 10/16** (2006.01); **H01F 10/26** (2006.01); **H10N 50/01** (2023.01); **H10N 50/10** (2023.01)

IPC 8 main group level

C25D (2006.01)

CPC (source: EP)

B82Y 25/00 (2013.01); **G01R 33/093** (2013.01); **H10N 50/01** (2023.02); **H10N 50/10** (2023.02)

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

WO 0017863 A1 20000330; AU 6060599 A 20000410; CA 2345390 A1 20000330; CN 1319225 A 20011024; EP 1125288 A1 20010822; IL 141859 A0 20020310; JP 2002525859 A 20020813; TW 468168 B 20011211

DOCDB simple family (application)

US 9922266 W 19990924; AU 6060599 A 19990924; CA 2345390 A 19990924; CN 99811240 A 19990924; EP 99969526 A 19990924; IL 14185999 A 19990924; JP 2000571443 A 19990924; TW 88116494 A 19990927