

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

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Application

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Priority

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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

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IPC 8 main group level

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