

A B S T R A C T

A METHOD OF MODIFYING THE DIRECTION OF MAGNETIZATION OF A
FERROMAGNETIC LAYER

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The invention provides a method of modifying the direction of magnetization of an upper layer (2) comprising a ferromagnetic material, the method being characterized by: a) placing the upper layer (2) above a
10 lower layer (3) that is not magnetically coupled with the upper layer (2), the lower layer (3) comprising a material suitable for acting or not acting, depending on whether the temperature of said material is greater than or less than a threshold value, to produce a radiated
15 magnetic field suitable for modifying the direction of magnetization of the upper layer (2), the magnetic field radiated by the material of the lower layer (3) being greater than the coercive field of the ferromagnetic material of the upper layer (2); and in that the method
20 comprises: b) a step consisting in causing the temperature of the lower layer (3) to pass from a first value in which the directions of magnetization of the upper layer (2) and of the lower layer (3) are in a stable relative configuration and in which the material
25 of the lower layer (3) does not produce a radiated magnetic field, to a second value in which the material of the lower layer (3) produces a radiated magnetic field suitable for modifying the direction of magnetization of the upper layer (2) in irreversible manner; and c) a step
30 consisting in causing the temperature of the lower layer (3) to pass from the second value to a third value in which the material of the lower layer (3) does not produce a radiated magnetic field; the temperature variation steps b) and c) being performed without
35 applying an external magnetic field.

Fig. 1