

Title (en)

MAGNETIC GARNET MATERIAL, MAGNETIC FILM WITH A STRONG FARADAY ROTATION COMPRISING SUCH A MATERIAL AND MANUFACTURING METHOD THEREFOR

Publication

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Application

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Priority

FR 8416763 A 19841102

Abstract (en)

[origin: US4698281A] The invention relates to a magnetic material containing either one or more rare earth elements, chosen from among lutetium, thulium and ytterbium, or yttrium. It also relates to a magnetic film with a high Faraday rotation constituted by a substrate coated with an epitactic layer of a magnetic material of the aforementioned type. The process for the production of such a magnetic film involves the deposition of a garnet film by liquid phase epitaxy on a substrate, use being made of an epitaxy bath containing gadolinium oxide, praseodymium oxide, and at least one oxide of a metal M, bismuth oxide, iron oxide, gallium oxide and/or aluminium oxide and a solvent incorporating lead oxide and boron oxide.

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