

FORMATION OF A CORROSION RESISTANT LAYER ON METALLIC THIN FILMS BY NITROGEN EXPOSURE

ABSTRACT

A process is described for fabricating magnetic transducers with metallic thin films with a corrosion resistant surface (87) produced by exposing the thin films to a nitrogen in a plasma chamber. The exposure to the nitrogen is believed to increase the corrosion resistance of metallic thin films by causing nitrides to form in a thin surface region (87). In the preferred embodiment the thin film metals of a magnetic transducer are treated with the nitrogen after being cut from the wafer and lapped. Typical metals used in magnetic transducers are NiMn, FeMn, NiFe, cobalt, CoFe, copper, IrMn and PtMn. The films may be further protected by the addition of prior art protective layers such as carbon.



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Fig. 3