

ABSTRACT OF THE DISCLOSURE

SOFT MAGNETIC UNDERLAYER IN MAGNETIC MEDIA **AND SOFT MAGNETIC ALLOY BASED SPUTTER TARGET**

A magnetic recording medium that includes a substrate, an underlayer deposited above the substrate, the underlayer comprised of a magnetically soft alloy containing at least one soft ferromagnetic element and at least one corrosion inhibitor element that is selected from the group consisting of chromium (Cr), tungsten (W), molybdenum (Mo), carbon (C), copper (Cu), nickel (Ni), manganese (Mn), nitrogen (N), titanium (Ti), niobium (Nb), silicon (Si), tantalum (Ta), and aluminum (Al), and a magnetic data recording layer deposited above the underlayer. A sputter target comprised of the magnetically soft alloy is also provided, and the magnetically soft alloy is also used in soft magnetic layers on magnetic recording heads.