Abstract

MAGNETIC RECORDING MEDIA AND METHODS FOR PRODUCING THE SAME

A magnetic recording medium comprising a non-magnetic underlayer and a CoPt magnetic layer provided on a substrate in this order wherein the non-magnetic underlayer comprises one or more non-magnetic layers, one of the non-magnetic layers which is in contact with the CoPt magnetic layer consists mainly of Cr and Mo, and difference ($d_{(002)} - d_{(110)}$) obtained by subtracting a crystalline lattice spacing of bcc (110) faces in the non-magnetic layer consisting mainly of Cr and Mo from a crystalline lattice spacing of hcp (002) faces in the magnetic layer falls within a range of from 0.002 to 0.032Å, which shows a high magnetic coercive force and square ratio and a low medium noise, and a method for producing the magnetic recording medium mentioned above wherein at least the non-magnetic layer consisting mainly of Cr and Mo and the CoPt magnetic layer are formed by a spattering technique using a substrate heating temperature within a range of 250 to 425 ℃ and an Ar gas pressure within a range of 0.5 to 10 mTorr.