

11 SEP 2002



162162



G00002

29

MAGNETIC STORAGE MEDIUM FORMED OF NANOPARTICLES

ABSTRACT

A magnetic storage medium is disclosed which is formed from a layer of substantially uniformly spaced-apart magnetic nanoparticles (1) of substantially uniform diameter disposed upon a surface of a substrate (5), with a coating (7), preferably of abrasion-resistant material, applied to adhere the nanoparticles (1) to the substrate (5) and to maintain their substantially uniform spaced-apart relationship. The nanoparticles (1) are formed from a magnetic material selected from the group consisting of elements Co, Fe, Ni, Mn, Sm, Nd, Pr, Pt, Gd, an intermetallic compound of the aforesaid elements, a binary alloy of said elements, a ternary alloy of said elements, an oxide of Fe further comprising at least one of said elements other than Fe, barium ferrite, and strontium ferrite.

FIG.2