A B S T R A C T

MAGNETIC RECORDING MEDIA AND PROCESSES FOR MANUFACTURE THEREOF

A magnetic recording disk (16) is controllably texturized, over areas designated for contact with a data transducing head. The process includes polishing an aluminium, nickel-phosphorous substrate to a specular finish, then rotating the disk while directing a beam (46) of pulsed laser energy from a laser (44) over a limited portion of the radius, thus forming an annular head contact band (32) while leaving the remainder of the surface 48 specular. The band is formed of multiple individual laser spots, each with a central depression surrounded by a substantially circular raised rim. The depth of the depressions and height of the rims are controlled primarily by laser power and firing pulse duration. The shape of individual laser spots can be altered by varying the laser beam inclination relative to the disk surface. The smooth, rounded contours of the depressions and surrounding rims, as compared to the acicular character of mechanically textured surfaces, is a primary factor contributing to substantially increased durability of laser texturized media.

[Figure 3]

This Sheet Has Been Replaced