ABSTRACT

METHODS FOR PRODUCING THIN FILM MAGNETIC DEVICES WITH INCERASED ORIENTATION RATIO

A method of producing a thin film magnetic device comprising forming a thin film of magnetic material over a surface of a substrate having a controlled surface topography, wherein the surface of the substrate is first subject to isotropic etching so as to increase the capacity of the substrate surface to induce a high orientation ratio in a thin film of magnetic material formed over the substrate surface without a reduction in the smoothness of the substrate; and a method of modifying a thin film magnetic device comprising a thin film of a magnetic material, the method comprising the step of subjecting a surface of the thin film magnetic device having a controlled surface topology to isotropic etching so as to increase the orientation ratio of the thin film magnetic device without reducing the smoothness of the surface of the thin film magnetic device.

(Figure 4)