

Method for Producing Magnetic Recording Medium and
Magnetic Recording and Reproducing Apparatus

ABSTRACT

A method for producing a magnetic recording medium having a magnetically partitioned magnetic recording pattern, comprising a step of forming a magnetic layer contains 0.5-6 atomic % of an oxide on a non-magnetic substrate; and a step of exposing regions of the magnetic layer, which magnetically partition the magnetic recording pattern, to a reactive plasma or reactive ion. The magnetic layer preferably has a non-granular structure, and in-plane orientated. After the step of exposure of the magnetic layer to a reactive plasma or reactive ion, a surface at least in said regions of magnetic layer having been exposed to the reactive plasma or reactive ion is preferably irradiated with an inert gas. Thus, a magnetic recording medium having a magnetic recording pattern with a high precision, and having high electromagnetic conversion characteristics and high recording density can be produced with an enhanced productivity.

Fig. 1