

ABSTRACT

METHOD OF PRODUCING MAGNETIC STORAGE MEDIUM, MAGNETIC
STORAGE MEDIUM, AND INFORMATION STORAGE DEVICE

5 It is an object to produce a magnetic storage medium of a
high recording density by a production method that does not
impair mass productivity, and a magnetic storage medium 10
is produced by a production method including: a magnetic-
film forming step of forming a magnetic film 61 on a
10 substrate 62; and a dots separating step of reducing
saturation magnetization by locally injecting mixed ions of
 N_2^+ ion and N^+ ion into an area, of the substrate 62, other
than plural areas which respectively become magnetic dots
62c where information is to be magnetically recorded,
15 thereby forming, between the magnetic dots 62c, a between-
dot separator 62d having saturation magnetization smaller
than saturation magnetization of the magnetic dots 62c.

Fig. 7