

METHOD OF FABRICATING SILICON SUBSTRATE FOR MAGNETIC
RECORDING MEDIA, AND MAGNETIC RECORDING MEDIUM

ABSTRACT OF THE DISCLOSURE

In this invention, etching is not performed in the step of planarizing a polycrystalline Si wafer, but only mechanical grinding is performed for planarization (steps S104 and S106). This is because, since the etching rate is crystal-face dependent, etching of the polycrystalline Si wafer unavoidably results in formation of steps due to different crystal face orientations of individual crystal grains exposed on a surface of the wafer, thus hindering precision surface planarization. Subsequently, the Si wafer surface is coated with an oxide film to form an Si wafer with oxide film (step S107) prior to the final polishing stage and then a surface of the oxide film is planarized (step S108), to give a planar substrate (i.e., Si substrate with oxide film) having no step on the surface thereof.

FIG. 2