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INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : G11B 5/127		A1	(11) International Publication Number: WO 98/57322
			(43) International Publication Date: 17 December 1998 (17.12.98)
(21) International Application Number: PCT/US97/10445		(81) Designated States: AU, CA, CN, JP, KR, SG, European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).	
(22) International Filing Date: 13 June 1997 (13.06.97)			
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(54) Title: METHOD AND APPARATUS FOR PRECISELY DIMENSIONING POLE TIPS OF A MAGNETIC TRANSDUCING HEAD STRUCTURE

(57) Abstract

A method and apparatus for processing a magnetic transducer (10) uses a gallium ion beam (210) to precisely define a pole tip region of the magnetic transducer. The precision pole tip widths provide a transducer that may record correspondingly precise track widths on a magnetic storage medium, such as a rotating disk. During the ion milling process an image detector (207) determines an image of the pole tip region to control subsequent ion beam milling with either a focused or defocused ion beam. Subsequent to the ion milling process, the magnetically conductive properties of the pole tip region, which may be degraded as a result of unwanted ion implantation during the ion milling process, are restored by means of a lapping process.

