9804103 -1
1705'5

PCT WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : G11B 5/127	A1	(11) International Publication Number: WO 98/34221
		(43) International Publication Date: 6 August 1998 (06.08.98)

(21) International Application Number: PCT/US98/01505

(22) International Filing Date: 28 January 1998 (28.01.98)

(30) Priority Data:
08/791,401 30 January 1997 (30.01.97) US

(71) Applicant: MKE-QUANTUM COMPONENTS LLC [US/US]; 1450 Infinite Drive, Louisville, CO 80027 (US).

(72) Inventors: WU, Andrew, L.; 15 High Street, Shrewsbury, MA 01545 (US). DUVAL, Paul; 95 North Hancock Street, Lexington, MA 02173 (US). FERRAGUTO, Thomas; 1 Carter Road, Woburn, MA 01801 (US).

(74) Agents: BURTON, Carol, W. et al.; Holland & Hart LLP, Suite 3200, 555 17th Street, P.O. Box 8749, Denver, CO 80201-8749 (US).

(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).

Published
With international search report.

(54) Title: PROCESS FOR PRODUCING A POLE-TRIMMED WRITER IN A MAGNETORESISTIVE READ/WRITE HEAD AND A DATA TRANSDUCER MADE THEREBY

(57) Abstract

A pole-trimmed writer for a magnetoresistive read/write data transducer which may be produced without significant re-deposition of Al_2O_3 or NiFe on the sides of the writer poles. The process disclosed advantageously provides an upper (top) pole (60) which is processed to project a pair of relatively thin, laterally extending lower flanges (62), prior to the use of the upper pole as a mask to subsequent ion milling of the lower pole, or shared shield (42). In a preferred embodiment, the process for producing the flange is implemented in conjunction with the deposition of a single copper (Cu) or dual Al_2O_3 and chromium (Cr) overlayers formed on the upper pole seed layer followed by the top pole formation and selective removal of an amount of the underlying portions of the gap material prior to a subsequent ion milling operation and further processing of the read/write head.

