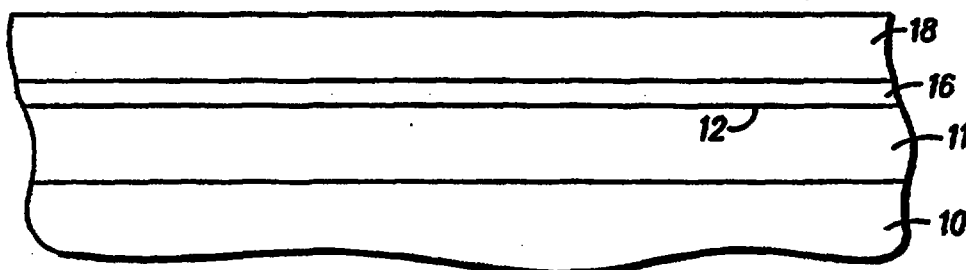




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(21) International Application Number: PCT/US99/16194 (22) International Filing Date: 15 July 1999 (15.07.99) (30) Priority Data: 09/119,326 20 July 1998 (20.07.98) US (71) Applicant: MOTOROLA, INC. [US/US]; 1303 East Algonquin Road, Schaumburg, IL 60196 (US). (72) Inventor: CHEN, Eugene; 1143 West Sherri Drive, Gilbert, AZ 85233 (US). (74) Agents: INGRASSIA, Vincent, B. et al.; Motorola, Inc., Intellectual Property Dept., P.O. Box 10219, Scottsdale, AZ 85271-0219 (US).		(81) Designated States: JP, KR, SG, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report.</i>

(54) Title: FABRICATING AN MTJ WITH LOW AREAL RESISTANCE20**(57) Abstract**

A method of fabricating a magnetoresistive tunnel junction including forming a thin, continuous layer of aluminum alloy (15) on the surface of a first magnetic layer (11), the continuous layer of aluminum alloy including greater than 90 % aluminum and traces of materials having atoms that are different from the atoms of the aluminum to produce grains which are smaller than grains of pure aluminum. The continuous layer (16) of aluminum alloy is oxidized, nitridized, or both to produce a continuous layer of non-conductive material and a second magnetic layer (18) is formed on the layer of non-conductive material.