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(71) Applicant *(for all designated States except US)*: SEAGATE TECHNOLOGY, INC. [US/US]; 920 Disc Drive, Scotts Valley, CA 95066 (US).

(72) Inventors; and

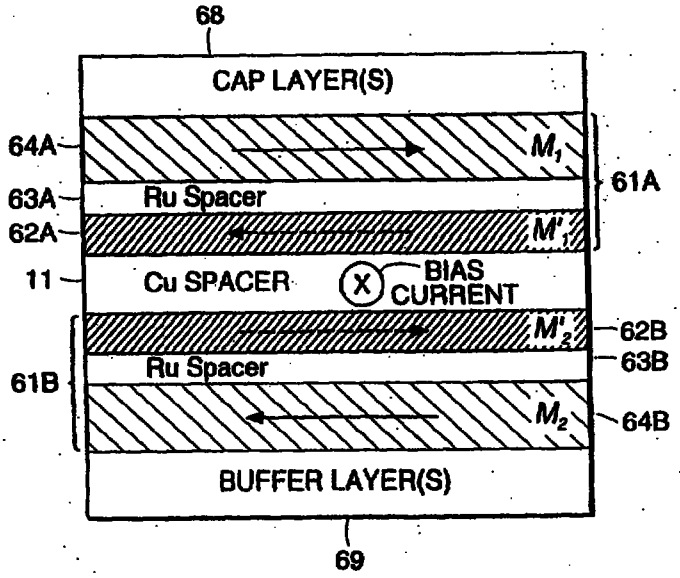
(75) Inventors/Applicants *(for US only)*: EVERITT, Brenda, Anne [US/US]; 5213 Washburn Avenue, Minneapolis, MN 55410 (US). POKHIL, Taras, Grigorievich [RU/US]; 1139 Pleasant Circle, Arden Hills, MN 53712 (US).

(74) Agent: O'BRADOVICH, Greg, J.; Fish & Richardson P.C., Suite 2800, 45 Rockefeller Plaza, New York, NY 10111 (US).

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(54) Title: DIFFERENTIAL VGMR SENSOR



(57) Abstract

A Vertical Giant Magnetoresistive Sensor (VGMR) with two VGMR structures (61A, 61B), each responding differently to an external magnetic field, producing a differential signal proportional to the field. The magnetizations (M1, M1', M2, M2') in each of the sensors are oriented antiparallel. The antiparallel magnetization is attained by altering the magnetic compositions of the two structures, or adding an additional structure such as a permanent magnet or current strip (11) between the VGMR structures.

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