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- (71) Applicant: AGENCY FOR SCIENCE, TECHNOLOGY  
AND RESEARCH [SG/SG]; 1 Fusionopolis Way, #20-10  
Connexis, Singapore 138632 (SG).
- (72) Inventor: HAN, Guchang; c/o DSI Building, 5 Engineer-  
ing Drive 1, Singapore 117608 (SG).
- (74) Agent: VIERING, JENTSCHURA & PARTNER LLP;  
P.O. Box 1088, Rochor Post Office, Rochor Road, Singa-  
pore 911833 (SG).

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(54) Title: MAGNETIC ELEMENT AND METHOD OF FABRICATION THEREOF

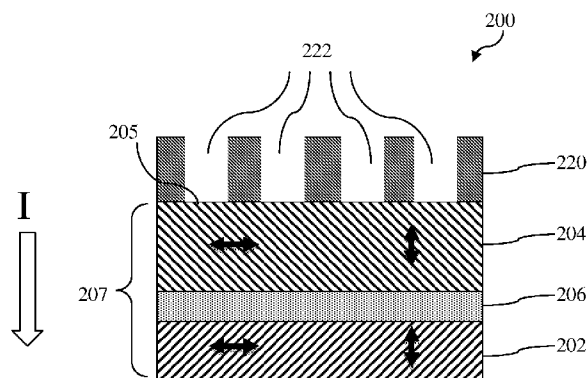


FIG. 2

(57) Abstract: There is provided a magnetic element including a reference layer made of a ferromagnetic material and having a fixed or pinned magnetization direction, a free layer made of a ferromagnetic material and having a switchable magnetization direction based spin transfer torque, and a spacer layer disposed between the reference layer and the free layer. In particular, the free layer includes a surface facing away from the spacer layer, and the magnetic element further includes a current confined layer disposed on the above-mentioned surface of the free layer. The current confined layer including at least one conductive channel extending through the current confined layer for concentrating current to flow through the at least one conductive channel. There is also provided a corresponding method of fabricating such a magnetic element and a magnetic memory device including an array of such magnetic elements.

