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### (54) MAGNETIC RANDOM ACCESS MEMORY DEVICE AND MANUFACTURING METHOD THEREFOR

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#### (57)ABSTRACT

Provided are a magnetic random access memory device and a manufacturing method therefor. The device comprises magnetic thin film structure bodies, and an electrode arranged around side surfaces of the magnetic thin film structure body. The method is: preparing a bottom electrode, preparing a magnetic thin film structure body on the bottom electrode; preparing a non-magnetic thin film structure body on the magnetic thin film structure body, and preparing another magnetic thin film structure body on the nonmagnetic thin film structure body; etching the two magnetic thin film structure bodies and the non-magnetic thin film structure body to form a MTJ device, preparing an insulating layer thin film on the outer surface of the device, and preparing a VCMA electrode on the periphery of the side face of the magnetic thin film structure body requiring voltage application; and preparing a wire connecting the VCMA electrode to outside.

