

NONVOLATILE CMOS-COMPATIBLE LOGIC CIRCUITS AND RELATED OPERATING METHODS

ABSTRACT

Apparatus and related fabrication and operating methods are provided for logic circuits that include ferromagnetic elements. An exemplary logic circuit includes a first ferromagnetic element having a first ferromagnetic layer, a second ferromagnetic element having a second ferromagnetic layer, and a transistor coupled to the first ferromagnetic element. The first transistor is configured to allow current to flow through the first ferromagnetic element. The current influences the magnetization direction of the first ferromagnetic layer, which, in turn, influences the magnetization direction of the second ferromagnetic layer.

Fig. 1