University of Maryland NSF-MRSEC Highlight

Fabrication of a Non-volatile Multiferroic Memory Device

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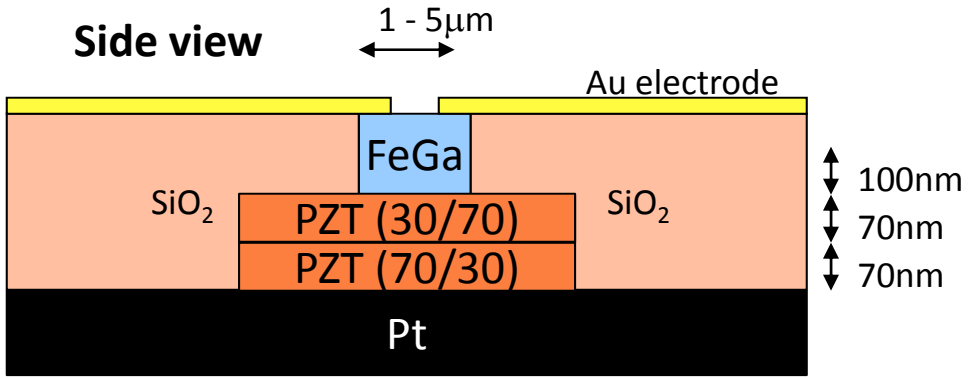
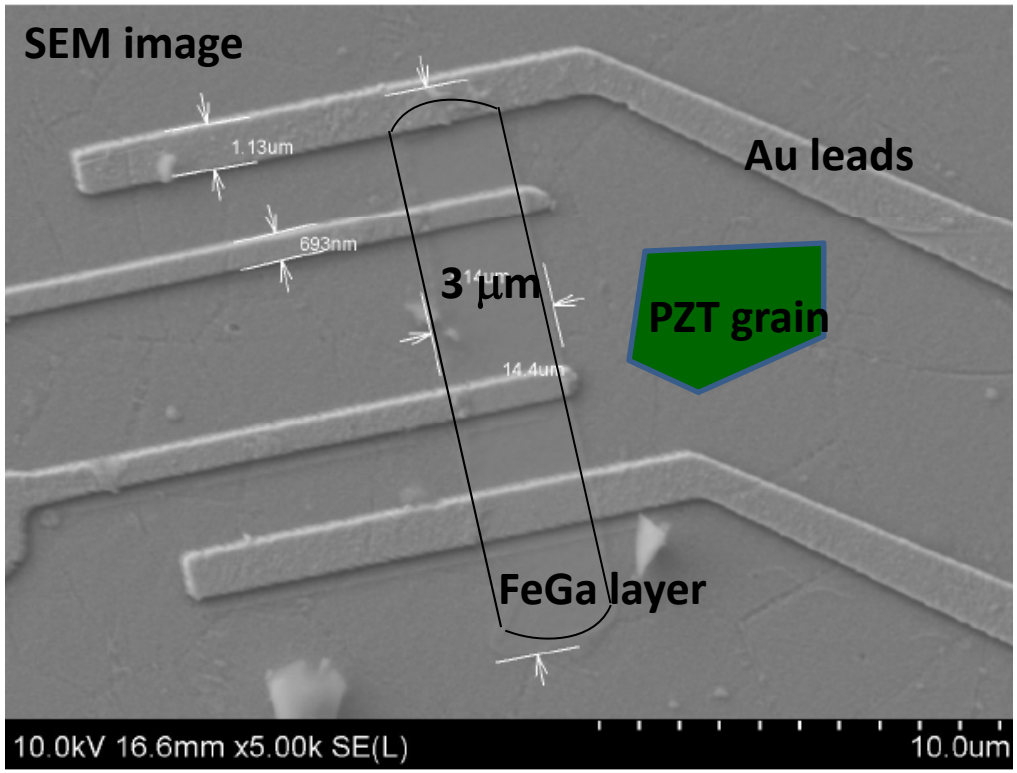


Micron-sized non-volatile magnetoresistance devices are being pursued using ferroelectric/ magnetostrictive multilayers.

Previously, we have demonstrated reversible ferroelastic domains in PZT ferroelctric bilyaers (Adv. Materials **21**, 3497 (2009)). In such bilayers, different elastic states can be achieved through reversible twin boundary motions induced by small voltage pulses. The elastic states are used to tune magnetic anisotropy in FeGa layer.



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