

ENHANCED SPIN VALVE SENSOR WITH ENGINEERED OVERLAYER**ABSTRACT**

A giant magnetoresistive (GMR) sensor (50) is disclosed for sensing magnetically recorded information on a data storage medium. The sensor (50) includes a ferromagnetic free layer (64) and a ferromagnetic pinned layer (56) sandwiching an electrically conductive spacer layer (62). An engineered overlayer (68) is formed on the free layer (64) to decrease free layer magnetic thickness without reducing physical thickness.

Fig. 8.

