

Simultaneous enhancement of coercivity and saturation magnetization in high-performance anisotropic NdFeB thick film with Dy diffusion layer

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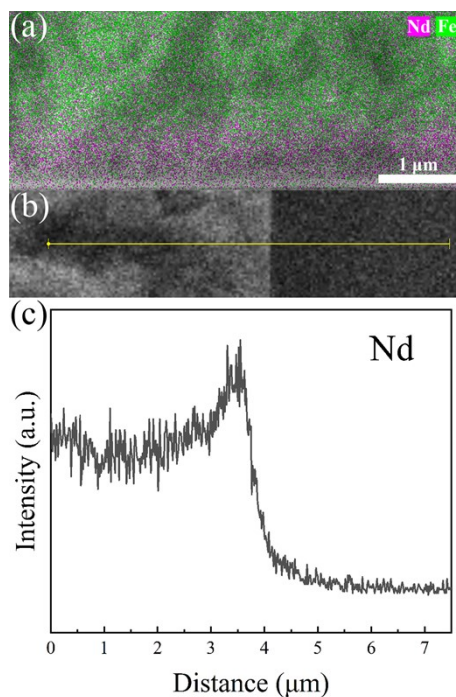


Figure S1 (a) EDX mapping result taken from the region of the Ta (100 nm)/{NdFeB (1 μm)/[Nd (5 nm)/Dy (5 nm)]₅/NdFeB (1 μm)/Ta (100 nm)}. (b) and (c) The corresponding enlarged image and EDX line scan results for Nd elements

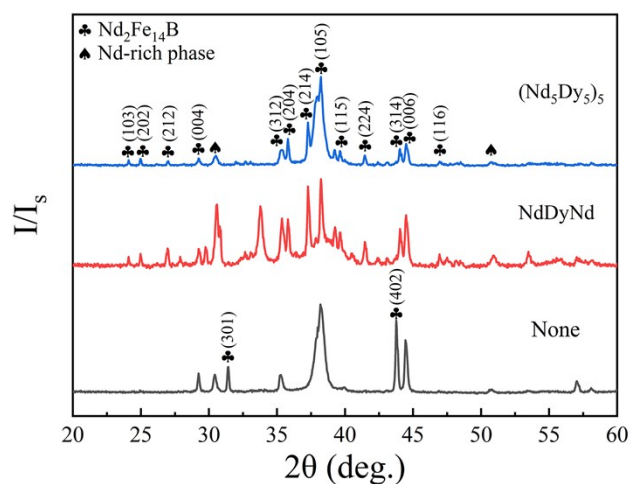


Figure S2. XRD patterns of Ta (100 nm)/NdFeB (2 μm) /Ta (100 nm), Ta (100 nm)/NdFeB (1 μm)/Nd (12.5 nm)/Dy (25 nm)/Nd (12.5 nm)/NdFeB (1 μm) /Ta (100 nm) and Ta (100 nm)/NdFeB (1 μm)/[Nd (5 nm)/Dy (5 nm)]₅/NdFeB (1 μm) /Ta (100 nm).

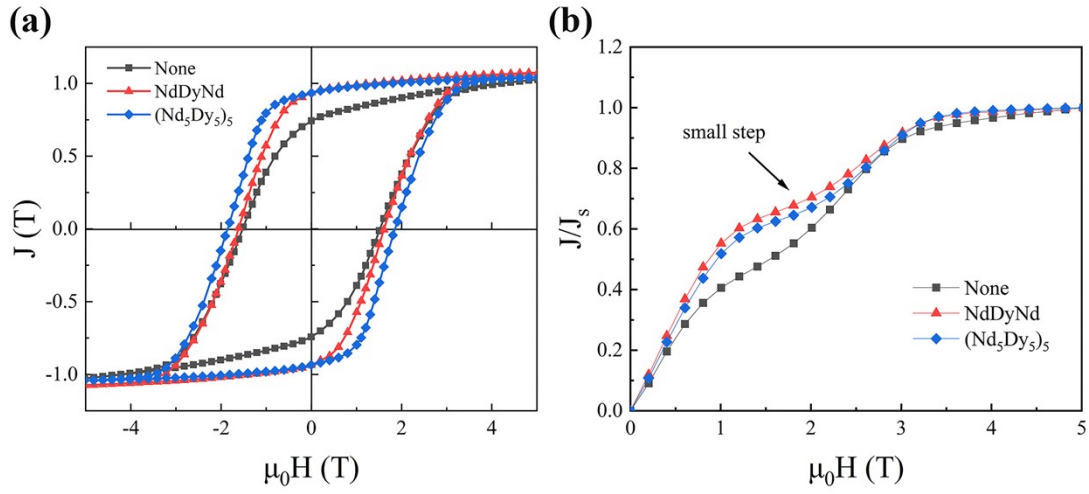


Figure S3. a) and b) Room temperature out-of-plane magnetic hysteresis loops and initial magnetization curves of Ta (100 nm)/NdFeB (2 μm) /Ta (100 nm), Ta (100 nm)/NdFeB (1 μm)/Nd (12.5 nm)/Dy (25 nm)/Nd (12.5 nm)/NdFeB (1 μm) /Ta (100 nm) and Ta (100 nm)/NdFeB (1 μm)/[Nd (5 nm)/Dy (5 nm)]₅/NdFeB (1 μm) /Ta (100 nm).

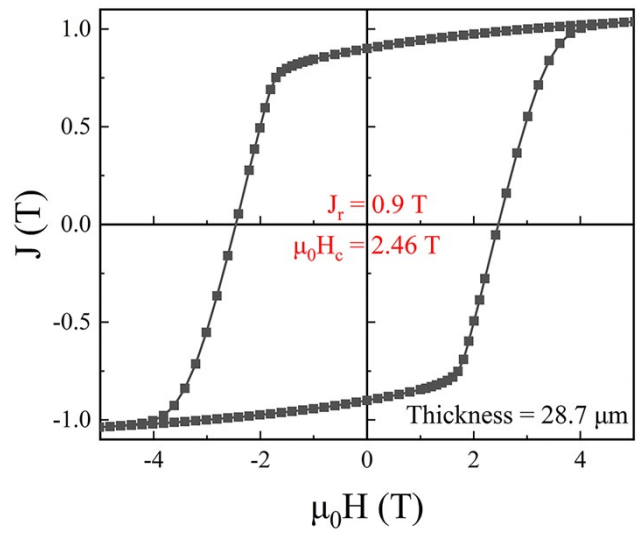


Figure S4. Room temperature out-of-plane magnetic hysteresis loops of Ta (100 nm)/NdFeB (28.7 μm).

nm)/[NdFeB (1 μm)/ Dy 50 nm]₂₈/NdFeB (1 μm)/Ta (100 nm).