Supplementary Information (SI) for Nanoscale.

Interplay of Geometry and Magnetic Coupling in Ferromagnetic Nanorings

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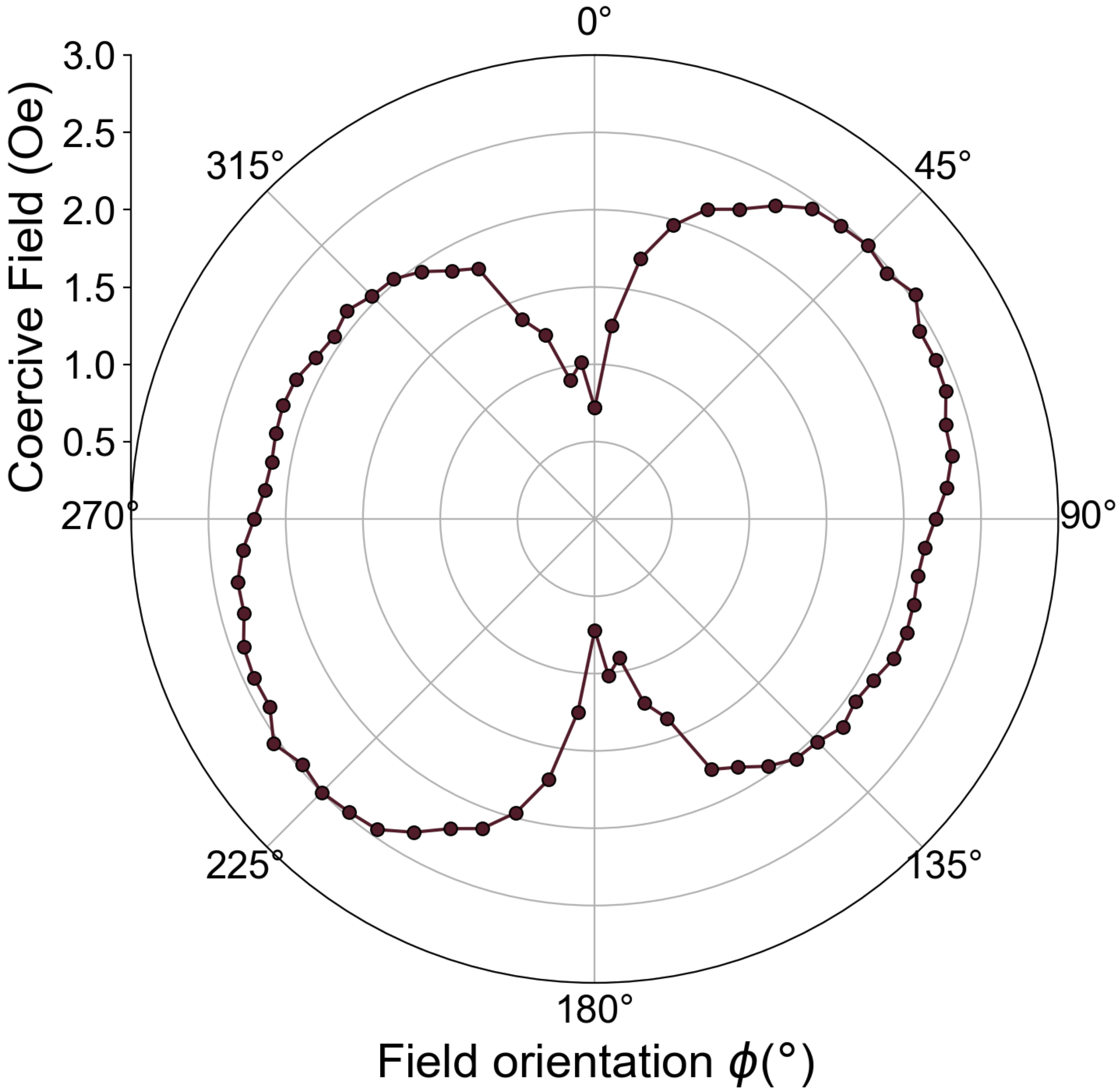

Fig.S1 Polar plot of the coercive field as a function of in-plane field orientation of the continuous film deposited simultaneously with ring patterns.

We mapped the in-plane anisotropy of the continuous film by measuring coercivity as a function of field orientation, as shown in Fig. S1. We observed non-isotropic behavior, even though the magnitude of the field variation is negligible compared to the relevant switching field of the rings.

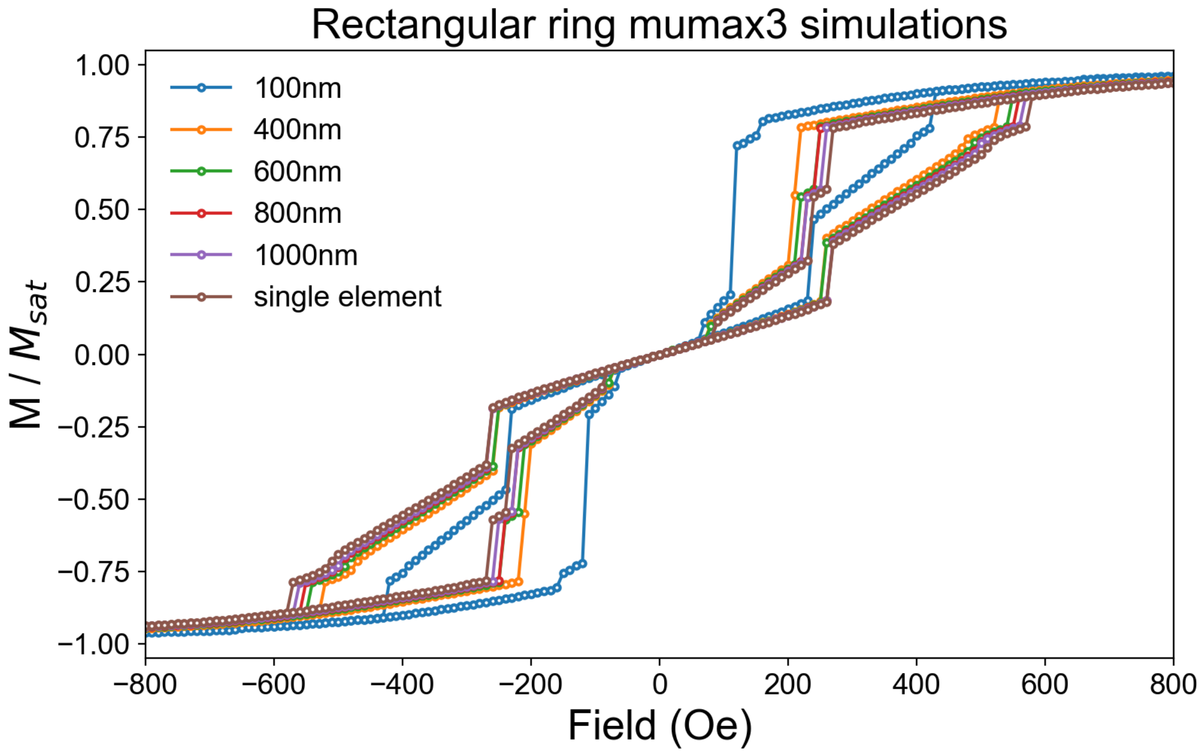

Fig. S2 Simulated hysteresis loops of rectangular ring arrays as a function of inter-ring spacing s in the range from 100 nm to 1 micron for the field applied along the short axis.

We simulated rectangular rings with varied spacing to ascertain that ring array withs = 400nm can be treated as isolated. We found a significant difference from s=100nm, and diminished difference from further spaced arrays.