

Supporting Information

Enhanced Bending Tuned Magnetic Properties in Epitaxial Cobalt Ferrite Nanopillar Arrays on Flexible Substrate

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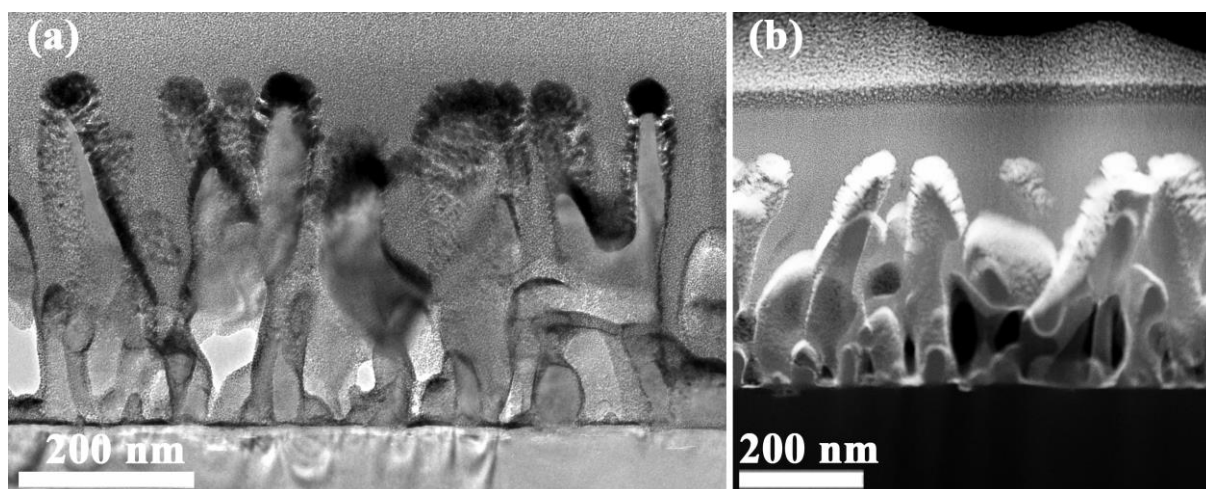


Figure S1. (a) Cross-sectional TEM images for the nanopillar arrays on the F-Mica substrate; (b) HAADF images for the nanopillar arrays on the F-Mica substrate

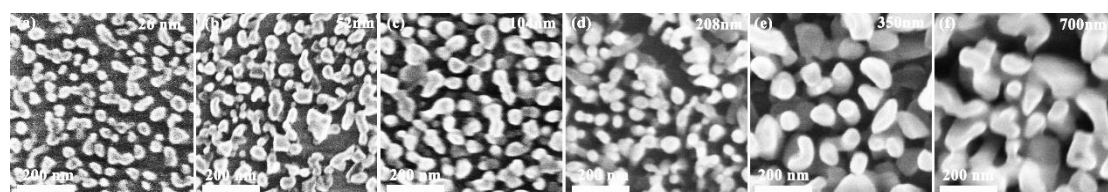


Figure S2. SEM images for the CFO nanopillar arrays structures with different thicknesses from 26nm to 700nm.

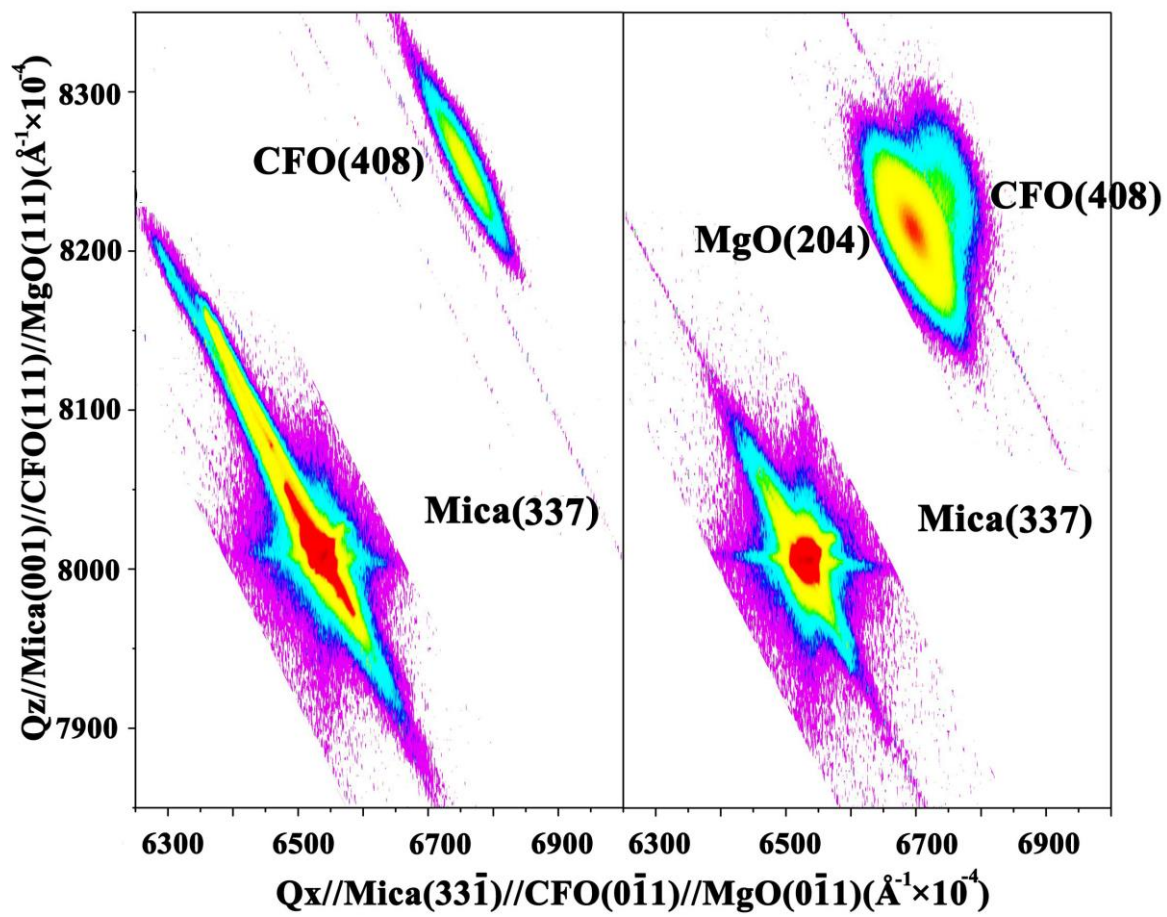


Figure S3. RSMs taken around the CFO(408) and F-Mica(337) peaks for the nanopillar arrays structure (left) and the CFO: MgO nanocomposite thin film (right), respectively.

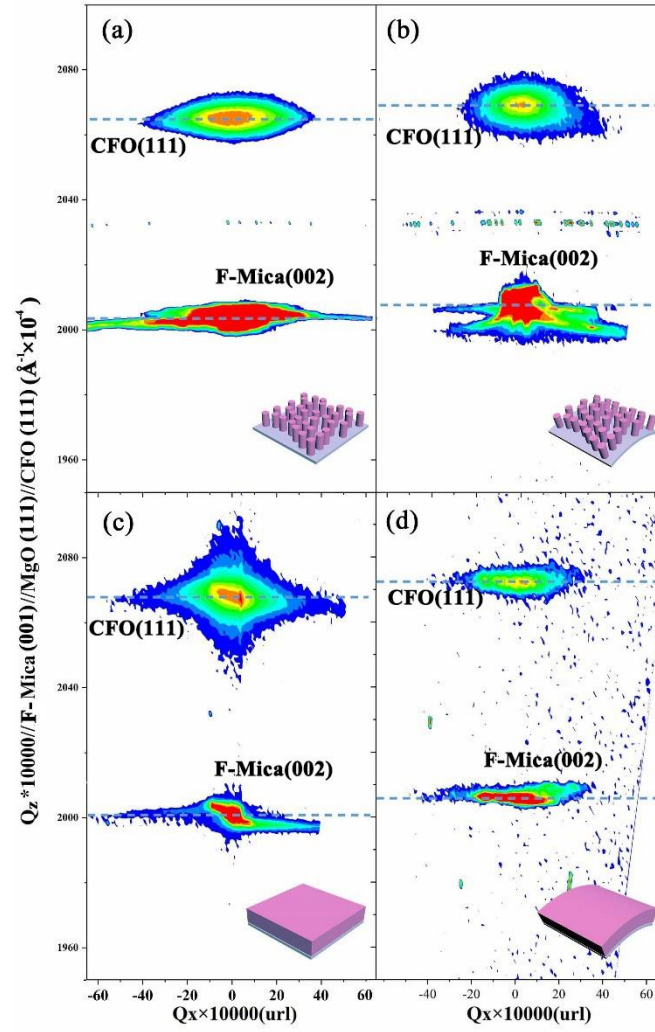


Figure S4. (a and b) The RSMs taken around the CFO(111) peaks for the nanopyllar structure with unbending and bending statuses, respectively; (c and d) The corresponding results for the planar CFO thin films.

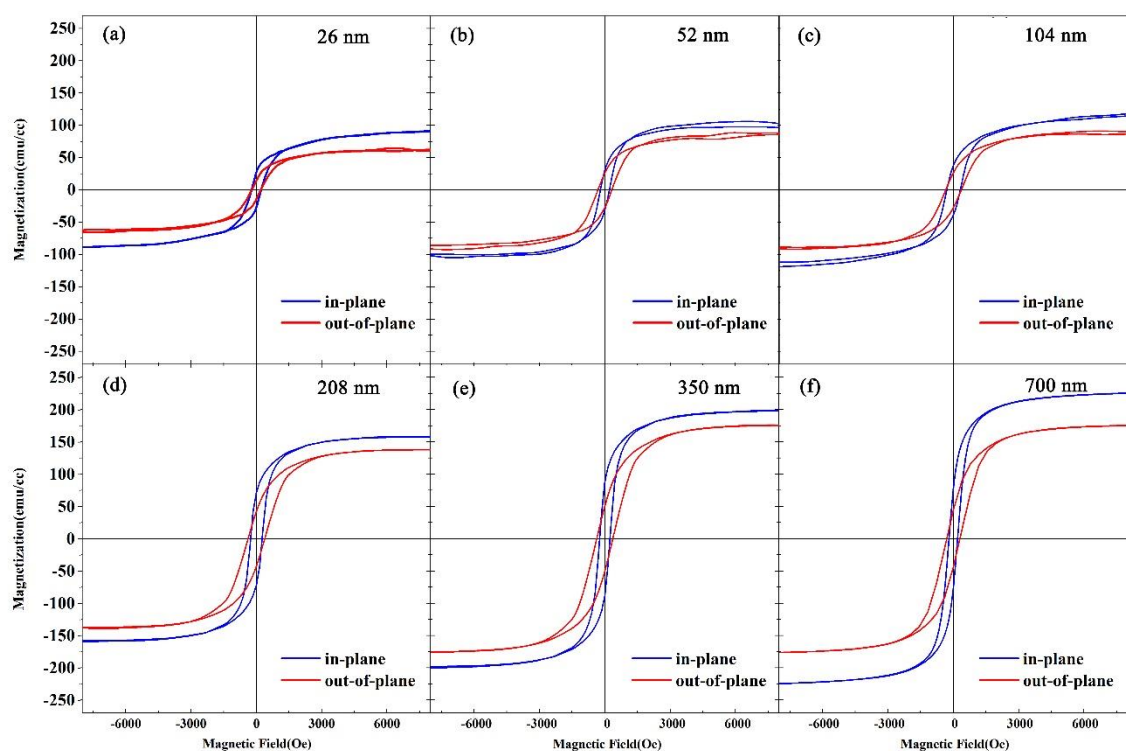


Figure S5. *M-H* loops of the CFO nanopillar thin films with different thicknesses from 26nm to 700nm.

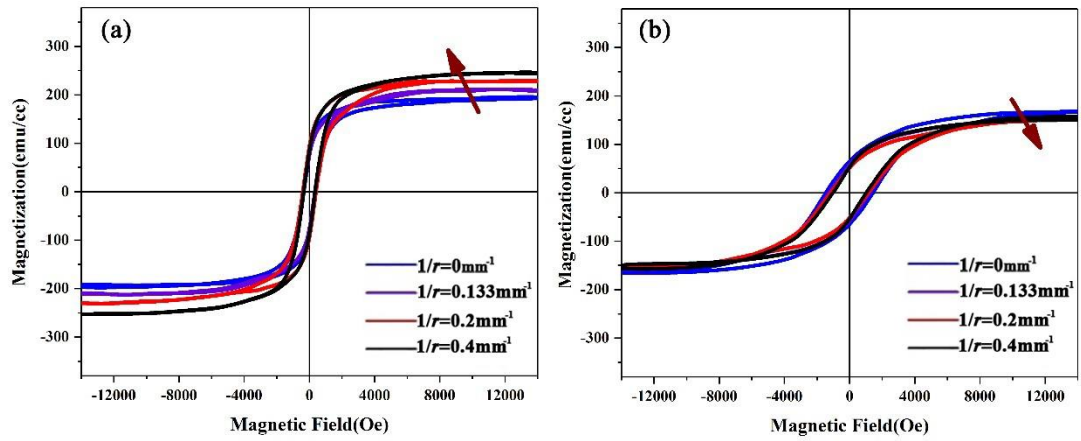


Figure S6. (a and b) The M - H loops taken along the parallel direction 2 for the nanopillar arrays structure and the planar film, respectively, with different bending radii. Here r is the radius of bending curvature.

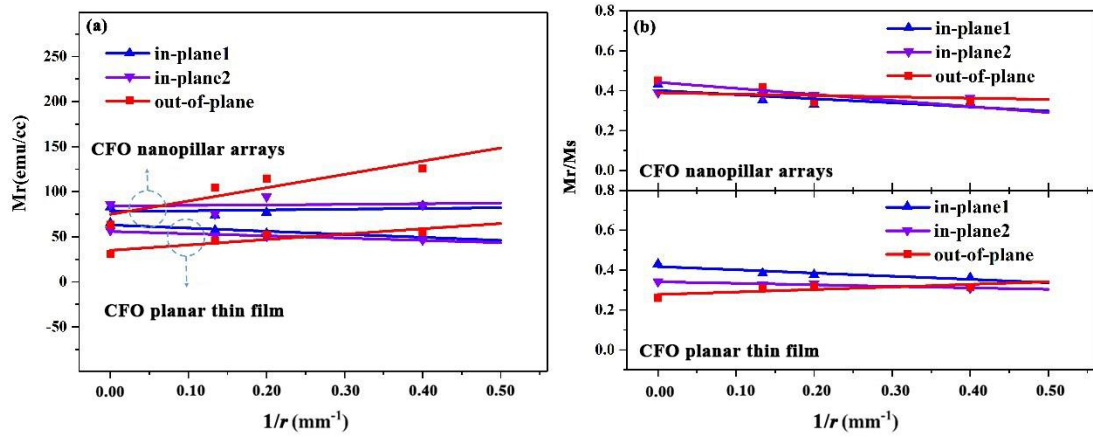


Figure S7. (a) The relationship between M_r and the radius of bending curvature (r) for the nanopillar arrays and planar thin films; (b) The relationship between M_r/M_s and the radius of bending curvature (r) for the nanopillar (upper) and planar (bottom) thin films.