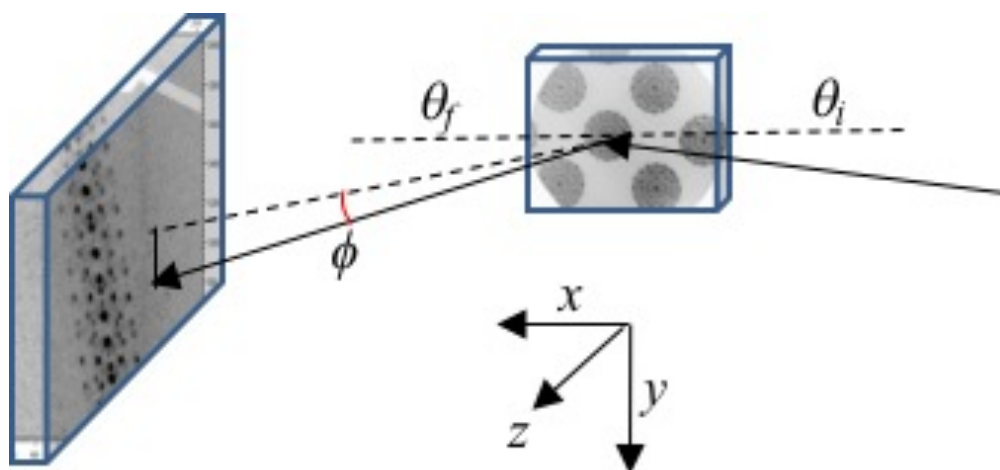


## Electronic Supplementary Information

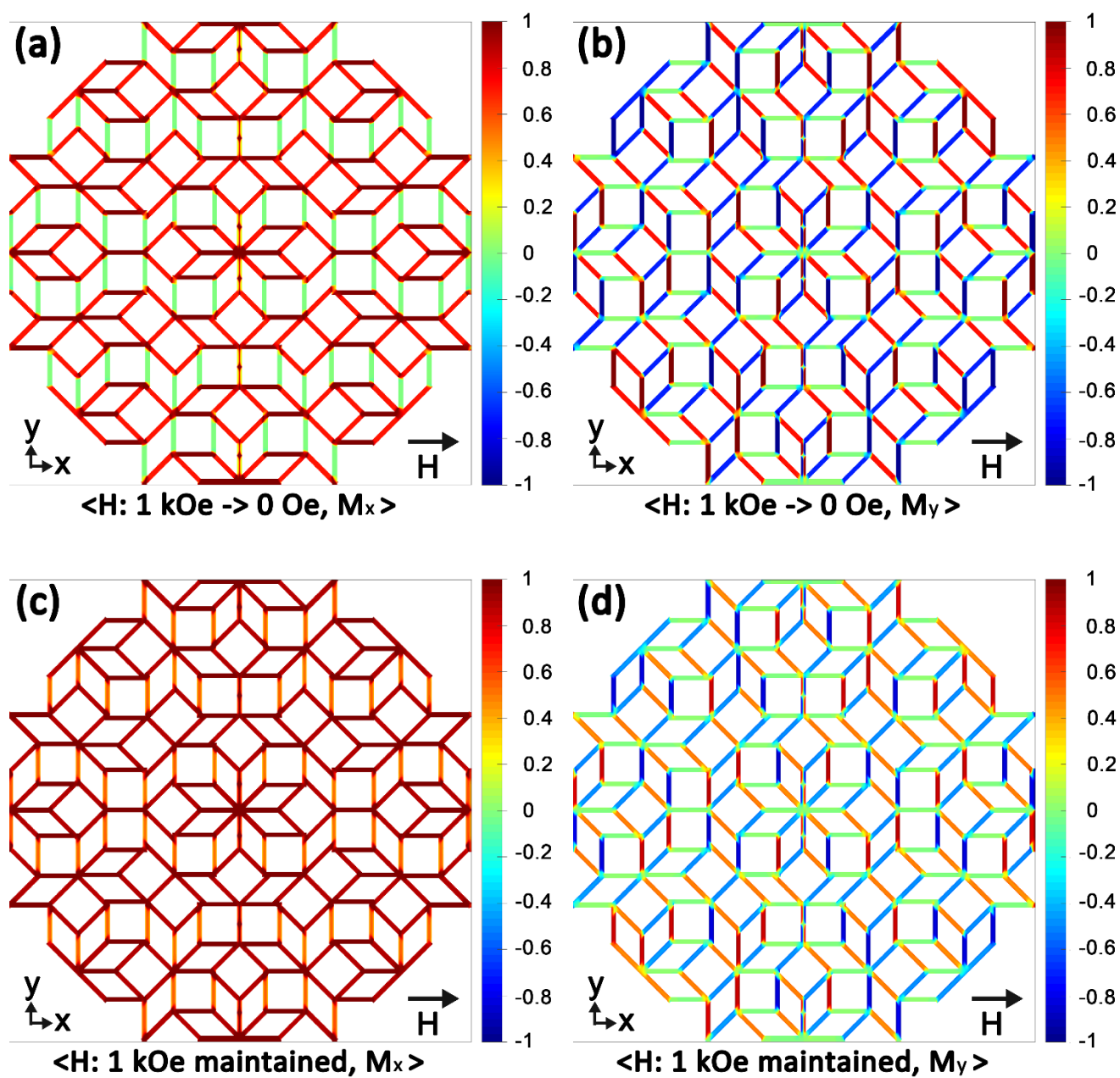
### Imaging magnetic structures of quasicrystal nanomagnets using resonant coherent diffraction of circularly polarized X-rays

Daeho Sung, Cheolho Jung, Byeong-Gwan Cho, Wonhyuk Jo, Hee-Sung Han, Ki-Suk Lee, Vinayak Bhat, Barry Farmer, L.E. de Long, Ki Bong Lee, D. J. Keavney, Dong Ryeol Lee and Changyong Song

Supplementing figure



**Fig. S1** Schematics of the scattering geometry employed for this resonant coherent X-ray diffraction in reflection configuration are shown. Corresponding momentum transfer vectors are defined as  $qx = \frac{2\pi}{\lambda} [\cos \theta_f \cos \phi - \cos \theta_i]$ ,  $qy = \frac{2\pi}{\lambda} [\cos \theta_f \sin \phi]$  and  $qz = \frac{2\pi}{\lambda} [\sin \theta_f + \sin \theta_i]$ .



**Fig. S2** Magnetizations at remanent (a & b) and saturation (c & d) conditions calculated from the micromagnetic simulation. For all the cases above, the applied magnetic field direction is along the x-direction. The color scale represents the magnitude of the normalized magnetization in the corresponding color.