

Supplementary Materials for

Evolution and competition between chiral spin textures in nanostripes with D_{2d} symmetry

Jagannath Jena, Borge Göbel, Vivek Kumar, Ingrid Mertig, Claudia Felser, Stuart Parkin*

*Corresponding author. Email: stuart.parkin@mpi-halle.mpg.de

Published 4 December 2020, *Sci. Adv.* **6**, eabc0723 (2020)
DOI: 10.1126/sciadv.abc0723

This PDF file includes:

Fig. S1

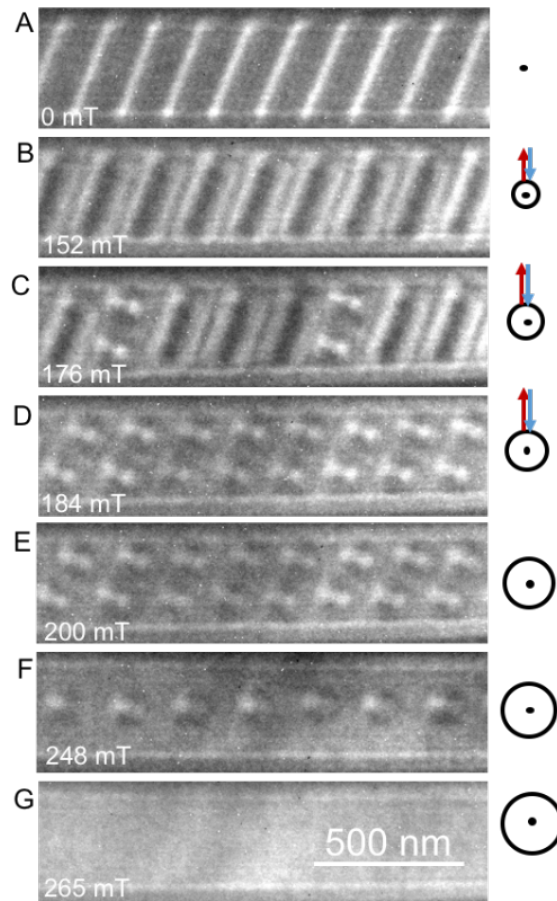


Fig. S1. Antiskyrmion formation under temporary tilting the sample by $\sim 38^\circ$. (A) The starting configuration is the helical phase. (B) A magnetic field is applied and the helix segments start to shrink. (C) Antiskyrmions start to emerge at 176 mT. (D) Two rows of antiskyrmions form near 184 mT, whereas for 30° of temporary tilting, the two rows of antiskyrmions formed at around 200 mT (see main text). Here, the number of antiskyrmions is higher compared to the case of 30° temporary tilting. (E) The two rows of antiskyrmions remain stable until (F) they turn into a single row of antiskyrmions at 248 mT. (G) At around 265 mT the ferromagnetic phase is established.