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Magnetic Stripe Domains in Thermally Evaporated Ni Strips SOO HYUNG LEE, FRANK ZHU, CHIA-LING CHIEN, NINA MARKOVIC, Johns Hopkins University — We have studied thermally evaporated thin Ni strips with varying widths and geometry. Magnetic force microscope images showed the presence of magnetic stripe domains. Wide Ni strips in their as-prepared-state exhibited stripe domains oriented perpendicular to the edge of the samples. In contrast, narrow Ni strips showed stripe domains that were parallel to the edge. Changes to the geometry of the strips caused competition of different stripe orientations. After we demagnetized the strips with an in-plane field, stripe domains followed the field's direction, which was at an arbitrary angle to the edge of the sample. We will discuss these results in terms of existing theoretical models.

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