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Imaging Magnetic Domain Morphologies in Co/Pt Multilayer with 4 of Cobalt BRITTNI NEWBOLD, KARINE CHESNEL, LAUREN HINDMAN, BERG DODSON, Brigham Young University — We have studied the magnetic domains that form perpendicular to the film of our multilayer Co/Pt thin film with 4 of Cobalt. When an external magnetic field is applied, the domains create morphologies that vary based on the strength of the magnetic field. These morphologies vary from maze-like to bubble patterns. We used a Vibrating Sample Magnetometer (VSM) to apply the fields to our 4 Co/Pt thin film. A Magnetic Force Microscope (MFM) was also used to obtain images of the magnetic domains of the sample in the absence of the field. We were able to find the field at which greatest number of domains was achieved by analyzing these MFM images. This research can be applied to data storage.

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