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Computational Analysis of Exchange Bias XRMS Data ALEX SAFSTEN, Brigham Young University — Magnetic thin films possess a domain structure which is easily affected by the influence of external magnetic fields. Under proper conditions, however, the film will exhibit the property of "magnetic memory," in which the film shows a preference for reforming in a domain structure similar to the original if possible. Previous work has shown the extent of magnetic memory in films whose preferred domain structure yields zero net magnetization on the sample. We show computational results for films under "exchange bias" conditions, in which the preferred state of the film has a nonzero net magnetization.

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