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Ferromagnetic Resonance Studies of Magnetic Anisotropy in Sr_2FeMoO_6[1] TETIANA NOSACH, MARK EBRAHIM, STEVE GREENBAUM, YUHANG REN, Physics & Astronomy, Hunter College, the City University of New York, ADYAM VENIMADHAV, QI LI, Physics, the Pennsylvania State University — We investigated magnetic anisotropic parameters of a 400-nm ferromagnetic half-metallic Sr_2FeMoO_6 thin film by ferromagnetic resonance (FMR). The resonance field and line width were recorded as a function of relative angle between applied magnetic field and crystallographic axes of the sample. The resonance field varies sinusoidally and considerable line width broadening occurs when the field aligned axis is rotated orthogonal to the spectrometer field. This is consistent with the presence of higher order components of anisotropy field. Further, we obtain the values of the cubic and the uniaxial magnetic anisotropy fields from the analysis of the FMR data.

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