Ferromagnetic resonance provides valuable information of dynamic response of thin film structures. A 3D micromagnetic model in frequency domain has been established by coupling linearized Landau–Lifshitz–Gilbert(LLG) equation and quasi-static Maxwell’s equation. This work then investigated FMR on multiple ferromagnetic layers by Heisenberg model to describe the interface magnetic behavior based on both analytical results and micromagnetic simulation. The resonance frequency for acoustic mode can be significantly tuned by changing the interface coupling coefficients, interface anisotropy and damping factor. This work thus provides useful tool for future design of microwave spintronics device operating around FMR frequency.

**Keywords:** FMR, multilayer, frequency tunable device

**References:**


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