

Recent progress in magnetization dynamics and noble magnetic material

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Recently the importance of dynamic properties of nano-magnetic materials has drawn a lot of attention. Experimental approaches such as time-resolved MOKE or time resolved PEEM-XMCD enable the proof of the numerical results based on micro-magnetic simulation. In addition, the FEL is expected to be a unique tool for the magnetization dynamics in the near future. In addition to the magnetization dynamics, new magnetic systems such as Skyrmion, spin-orbit interaction based materials, and the noble non-d&f magnetic systems such as nano-sclaeagraphene are expected to be very important for the era of spintronics. Several studies on magnetization dynamics and noble magnetic materials will be presented.

1. Synthetic Skyrmion and its topological properties in Co/Ni/Cu(100)
2. Magnetism of graphenenano ribbon
3. Non-linear behavior of magnetic vortex core reversal
4. Exchange-bias revisited