

研究スタッフ

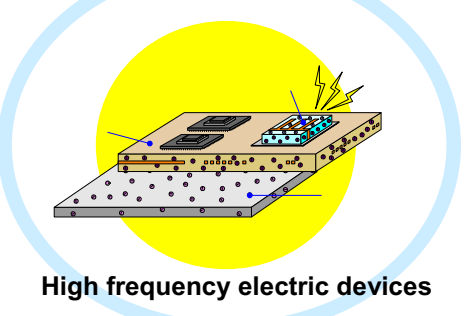
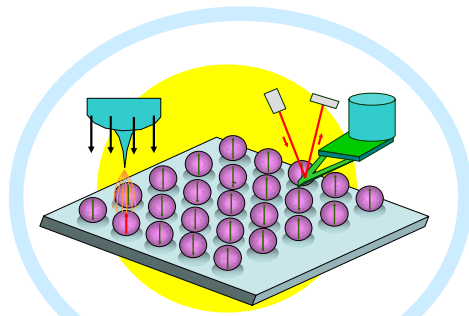
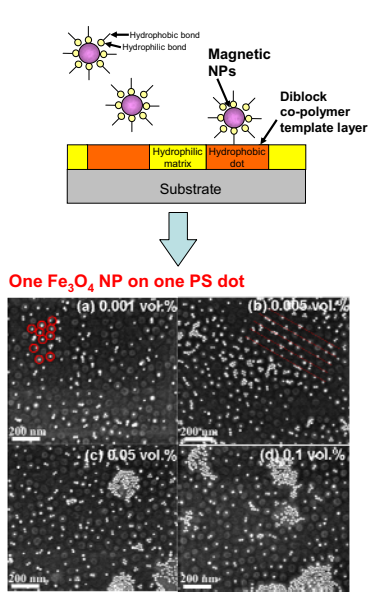
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 Haitao Yang、長谷川 大二、磯上 慎二

研究目的

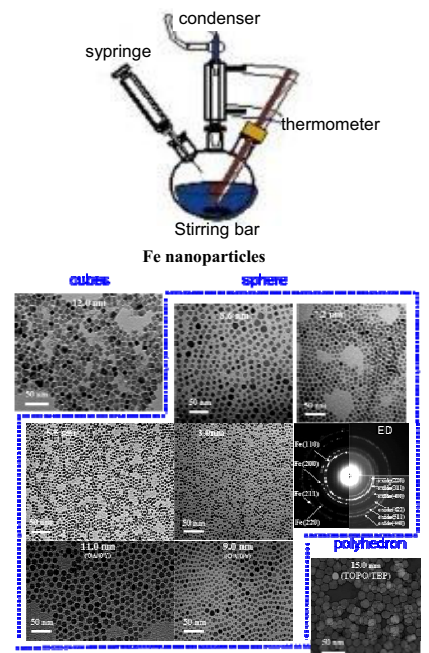
本研究室では、化学合成を中心としたウェットプロセスならびにスパッタ法を中心としたドライプロセスを駆使することによって、超高密度磁気記録媒体、高性能・高感度を有するMRAM・SVヘッドおよび高周波デバイスを実現し得る、新たな材料設計・プロセス技術の確立を目指している。

主な研究テーマ

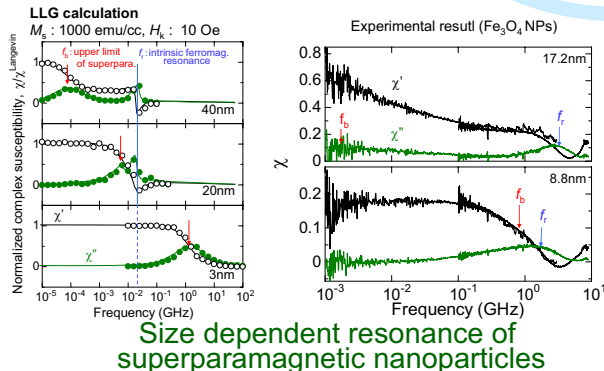
Nanoparticle 2D Array



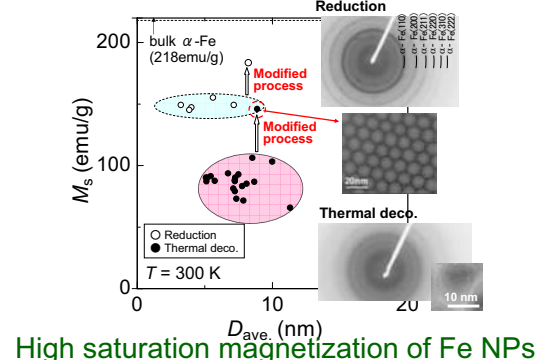
Synthesis of Nanoparticles



Magnetic Properties



Size and shape control of Fe NPs

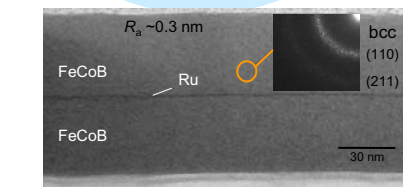
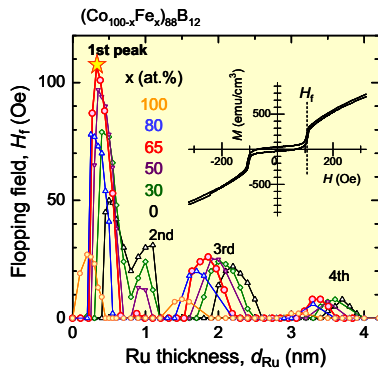
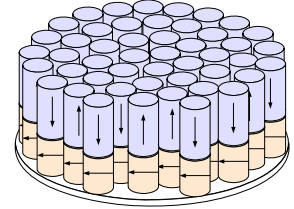
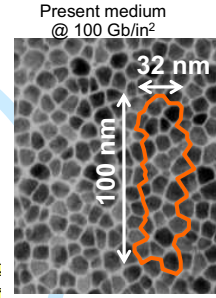
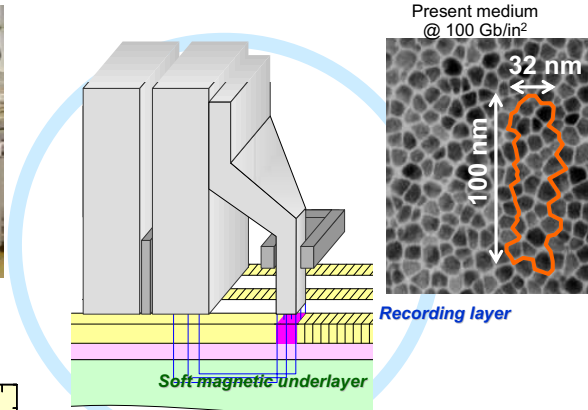


Next generation of Magnetic Recording Media

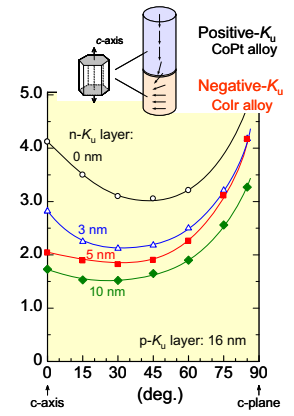
Fabrication of ultimate HD by perfect control of nanostructure



Ultra Clean Sputtering System

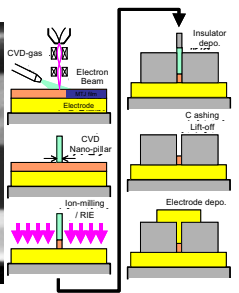
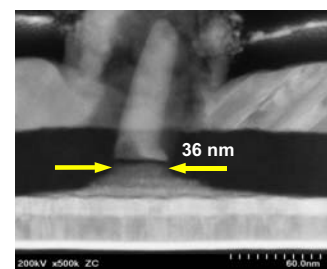
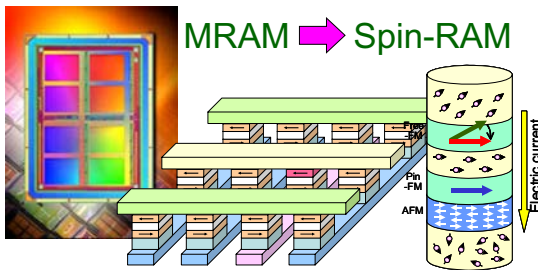


Spike noise & WATE free SUL

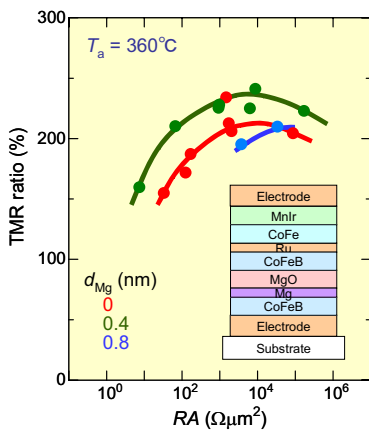


Maintain write-ability & Thermal stability

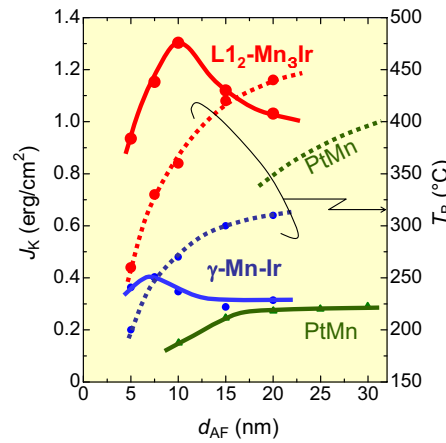
Spin nano technology for high performance magnetoresistive random access memory



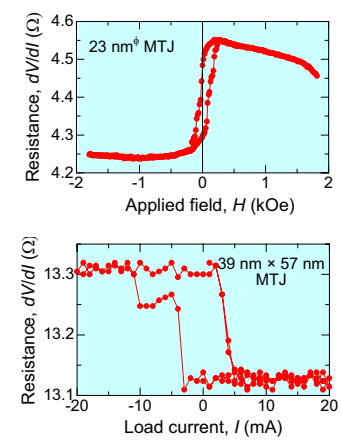
Novel fabrication process of nano-scale spintronics devices



Giant TMR ratio with MgO barrier



New AFM material showing giant exchange bias



MR & CIMS curve of nano-scale MTJs