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## The magnetic anisotropy of the epitaxial Co/Cu multilayer

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The epitaxial Co/Cu multilayer thin films were grown on Si(100) substrate by evaporation method and their structural and magnetic properties were studied by XRD, RHEED, MOKE and MR measurement. The analysis of RHEED pattern and XRD results showed that the structure of the epitaxial films was fcc(001) and the crystal axis was rotated by  $45^\circ$  in the plane with respect to Si substrate. The four fold symmetry was observed from the angular modulation of remnant magnetization ratio ( $M_r/M_s$ ) and MR measurement. These result are due to magnetic crystalline anisotropy which is related to the structural symmetry of Co fcc(001) in the plane. And extraordinary large MR ratio was observed at magnetic easy axis.