ESRF	**Experiment title:** Induced magnetic moment in normal metal/magnetic insulator heterostructures via XMCD	**Experiment number:** HE-3784
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Report:

Using X-ray magnetic circular dichroism (XMCD) measurements, we explore the possible existence of induced magnetic moments in thin Pt films deposited onto the ferrimagnetic insulator yttrium iron garnet ($Y_3Fe_5O_{12}$). Such a magnetic proximity effect is well established for Pt/ferromagnetic metal heterostructures. Indeed, we observe a clear XMCD signal at the Pt L_3 edge in Pt/Fe bilayers, while no such signal can be discerned in XMCD traces of Pt/$Y_3Fe_5O_{12}$ bilayers. Integrating the XMCD signals allows to estimate an upper limit for the induced Pt magnetic polarization in Pt/$Y_3Fe_5O_{12}$ bilayers.

For further reading, we refer to

Stephan Geprägs, Sibylle Meyer, Stephan Altmannshofer, Matthias Opel, Fabrice Wilhelm, Andrei Rogalev, Rudolf Gross, and Sebastian T. B. Goennenwein,
Investigation of induced Pt magnetic polarization in Pt/$Y_3Fe_5O_{12}$ bilayers,
Appl. Phys. Lett. **101**, 262407 (2012).