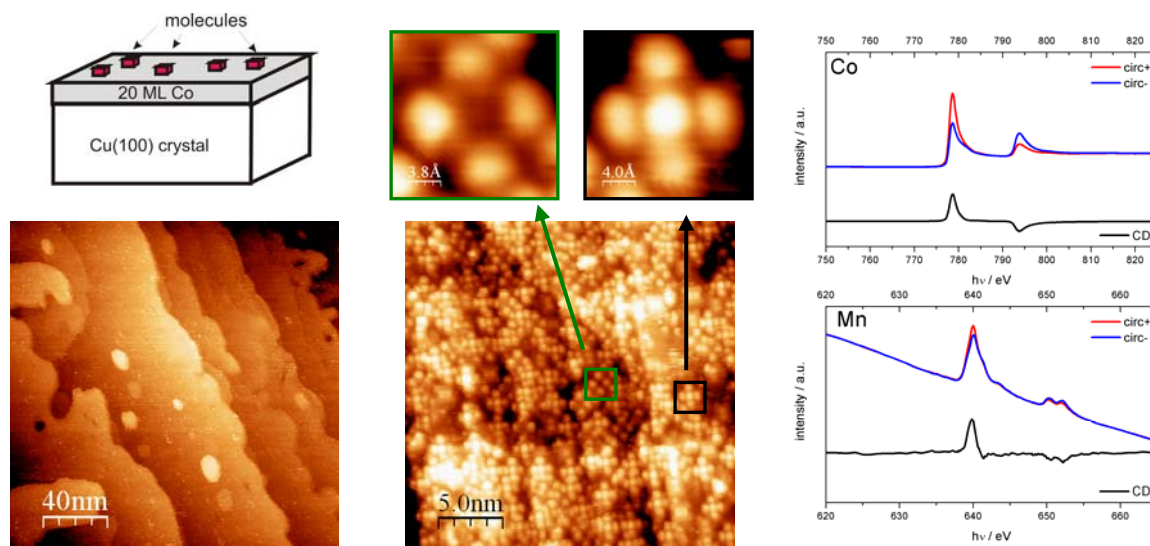


## Master project description

### Molecular magnets

Single molecule magnets (SMM's) are nanometer-sized magnetic materials exhibiting classical macroscale properties as well as fascinating quantum effects. Therefore understanding the mechanisms of spin transport at the interfaces between metallic substrates and organic molecular layers is essential for future applications.

The system consists of organic molecules with a magnetic metal center, adsorbed on thin magnetic films. Your work will be mostly performed at the Laboratory for Micro-and Nanotechnology (LMN) in Paul Scherrer Institute. You will analyze the samples in ultra high vacuum conditions using photoelectron spectroscopy (XPS and UPS) and scanning tunneling microscopy (STM). Additionally, magnetic measurements (x-ray magnetic circular dichroism, XMCD) will be performed at the Swiss Light Source.



**Starting date:**

2009

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