

X-ray Magnetic Dichroism under extreme conditions

Philippe Saintavit

IMPMC, UMR 7590 CNRS, UPMC, IRD

XMCD has proved to be an extremely valuable method in order to determine precise electronic and magnetic properties of ions in magnetic systems. Compared to other magnetic measurements, XMCD experiments are often limited to temperatures above 1 Kelvin and to magnetic fields below 20 Tesla. In this talk, we shall review recent developments where sub-Kelvin temperatures have been obtained and where pulsed magnetic fields as high as 30 Tesla have been applied. The technical concepts of the achievements and the fields that can now be covered shall be developed.