Low-temperature physics



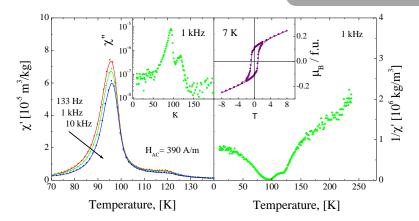
Preface

Electromagnetic and optical investigations can be carried out in two flow through cryostats in 4÷300 K temperature and 0÷8 T magnetic field ranges. Properties are studied by dc magnetization, ac susceptibility, magneto transport and optical transmittance / reflectivity measurements. Obtained data characterise spin dynamics, FM/PM transitions, blocking, cluster freezing and optical transition driven thin film surface material reordering.

Infrastructure

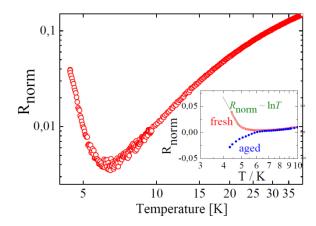


Continuous flow optical cryostat for 4÷300 K temperature range

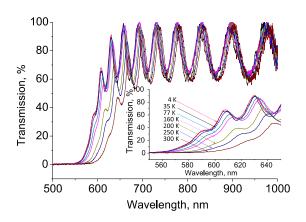


Coexistence of FM/PM states and traces of spin transition on a semiconducting-metallic MR material

Example



Low temperature normalized resistance of an electrodeposited Co-Pb thin film. The inset shows the difference between the fresh and aged states.



Optical transmittance spectra of a photosensitive semiconductive thin film in 4-300 K temperature range