MEASUREMENT OF **PHYSICAL PROPERTIES**

QUANTUM DESIGN INC. PPMS DYNACOOL SYSTEM

The Physical Property Measurement System – PPMS Dynacool (Quantum Design, Inc.) offers a non-destructive complex physical characterization, e.g. measurement of heat capacity, magnetization, magnetic torque, electrical resistivity, Hall effect, I-V curves, of solid samples in a temperature range from 1.9 to 400 K and in magnetic fields up to 9 T.

ACQUIRED INFORMATION

- Field dependences of sample magnetization (i.e. hysteresis loops)
- Temperature dependences of magnetization
- Torque magnetometry
- Electrical resistivity
- I-V curves
- Hall effect

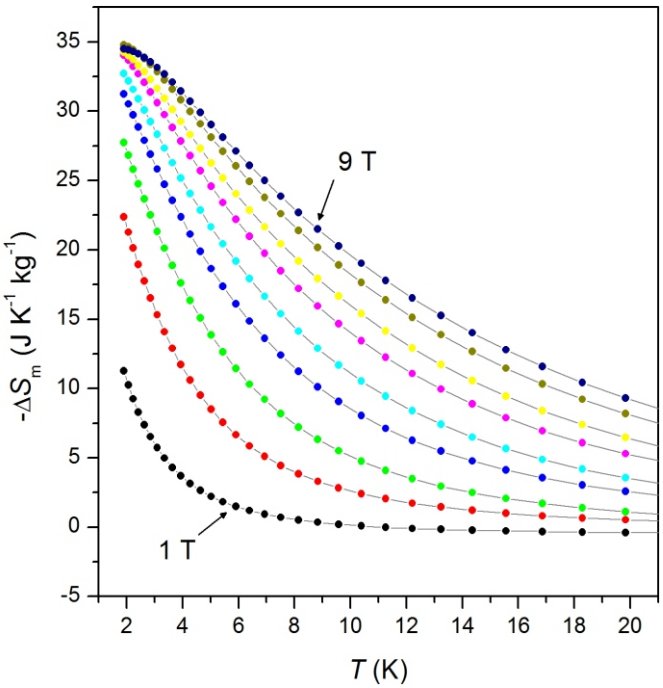
Physical Property Measurement System – PPMS Dynacool

SAMPLE TYPES

- Crystalline and powder materials

MODES, CONDITIONS AND PRECISION

- Measurements are performed in the atmosphere of low-pressure helium vapours
- Temperature range: 1.9–400 K; range of magnetic field induction: ±9 T
- Maximum sweep rate of magnetic field: 220 Oe/s
- VSM sensitivity: 2☐10^{-7} emu; range of measurable magnetic moments: ± 5 emu



Entropy change induced by magnetic field for Gd(III) coordination compound

DETAILED INFORMATION ON REQUEST

REGIONAL CENTRE
OF ADVANCED TECHNOLOGIES
AND MATERIALS

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