Precision High-Field Magnetometry of Na_2IrO_3

C. Topping, J. Singleton (NHMFL-PFF); R. Coldea (Oxford University); P. Goddard (Oxford and Warwick Universities)

Introduction and Experimental

Precision extraction magnetometry measurements were carried out on Na_2IrO_3 in pulsed-magnetic fields of up to 65 T at NHMFL-PFF. The purpose was to detect or disprove a postulated field-induced phase transition.

Results and summary

The reproducibility of the magnetometry data was excellent, allowing very small changes in gradient of the M(H) curves to be detected. No sharp transitions denoting field-induced phase transitions were observed, eliminating possible models of the low-temperature groundstate [1]

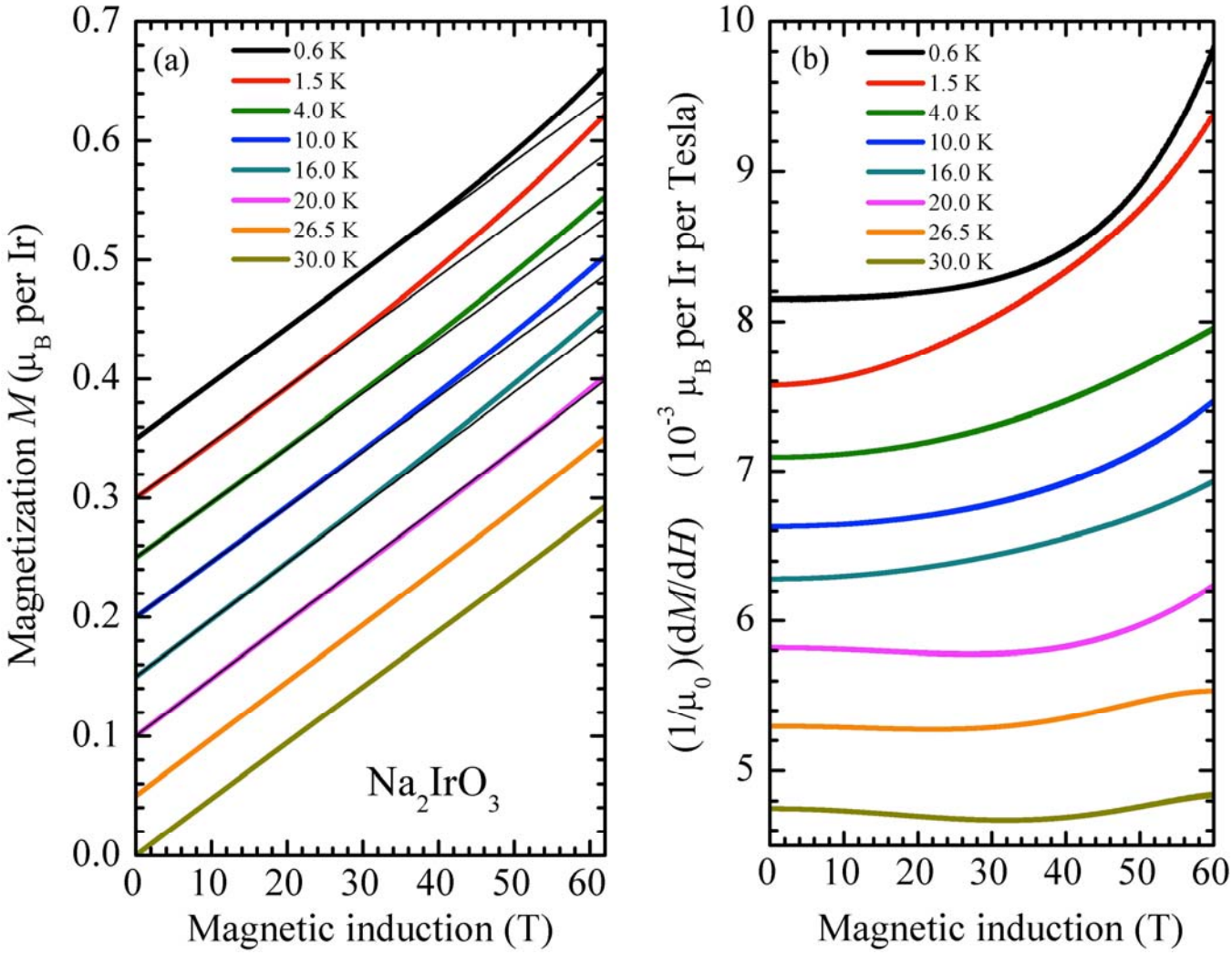

Figure 1. Pulsed-field magnetization (left) and dM/dH (right) for Na_2IrO_3.

Acknowledgements

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Reference

[1] R. Coldea et al., in preparation.