

Data underlying the research Evidence for the Fulde-Ferrell-Larkin-Ovchinnikov state in bulk NbS₂

The files contain all the source data of magnetic torque, specific heat and linear thermal expansion taken on a single crystal of NbS₂ as contained in arXiv:2011.04880.

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Description of the content:

All data is supplied in ASCII format. The description of the content of each file should be obvious from the file names and the header.

Data named “torque 1degree XXXK” where ‘XXX’ stands for different temperatures e.g. 0.35 K:

Magnetic torque data measured with a small offset angle $\theta = 1$ degrees with respect to the layer structure of NbS₂, as shown in Fig. 1 of arXiv:2011.04880.

Data named “torque angular dependence Xdeg” where ‘X’ stands for different angles θ with respect to the layer structure of NbS₂ e.g. 0.1 degrees:

Magnetic torque data measured with different small offset angles as shown in the inset of Fig. 1 of arXiv:2011.04880.

Data named “torque 0degree XXXK down” or “torque 0degree XXXK up” where ‘XXX’ stands for different temperatures e.g. 0.35 K:

Magnetic torque data measured with perfectly parallel magnetic field orientation $\theta = 0$ degrees with respect to the layer structure of NbS₂ at constant temperature as a function of increasing (“up”) or decreasing (“down”) field, as shown in Fig. 2a&b of arXiv:2011.04880.

Data named “torque 0degree XT” where ‘X’ stands for different applied fields e.g. 15 T:

Magnetic torque data measured with perfectly parallel magnetic field orientation $\theta = 0$ degrees with respect to the layer structure of NbS₂ at constant field as a function of increasing temperature, as shown in Fig. 2c of arXiv:2011.04880.

Data named “Specific heat 15T”:

AC Specific heat data C/T measured with perfectly parallel magnetic field orientation $\theta = 0$ degrees with respect to the layer structure of NbS₂ in a field of 15 T as a function of temperature, as shown in Fig. 3a of arXiv:2011.04880.

Data named “thermal expansion 15T”:

Linear thermal expansion coefficient $\alpha = 1/L \, dL(T)/dT$ measured with perfectly parallel magnetic field orientation $\theta = 0$ degrees with respect to the layer structure of NbS₂ in a field of 15 T as a function of temperature, as shown in Fig. 3a of arXiv:2011.04880.

Data named “Specific heat field-sweep XK” where ‘X’ stands for different temperatures e.g. 0.35 K.

AC Specific heat data C/T measured with perfectly parallel magnetic field orientation $\theta = 0$ degrees with respect to the layer structure of NbS₂ at constant temperature as a function of magnetic field, as shown in Fig. 3b of arXiv:2011.04880.

Data named “Cp field derivative 300mK up” and “Cp field derivative 300mK down”:

High resolution magnetic field derivative of AC Specific heat data C/T measured with perfectly parallel magnetic field orientation $\theta = 0$ degrees with respect to the layer structure of NbS₂ at constant temperature of 300 mK as a function of increasing (“up”) and decreasing (“down”) magnetic field, as shown in Fig. 4a of arXiv:2011.04880.

Data named “Data named “magnetostriction 300mK up” and “magnetostriction 300mK down”:

High resolution linear magnetostriction coefficient $\lambda = 1/L \, dL(T)/dB$ measured with perfectly parallel magnetic field orientation $\theta = 0$ degrees with respect to the layer structure of NbS₂ at constant temperature of 300 mK as a function of increasing (“up”) and decreasing (“down”) magnetic field, as shown in Fig. 4a of arXiv:2011.04880.

Data named “Data named “torque derivative 2K” and “torque derivative 1p75K”:

High resolution magnetic field derivative of the magnetic torque measured with perfectly parallel magnetic field orientation $\theta = 0$ degrees with respect to the layer structure of NbS₂ at constant temperatures of 1.75 K and 2.0 K as a function of increasing magnetic field, as shown in Fig. 4b of arXiv:2011.04880.

Data named “Specific heat 0T”:

AC Specific heat data C/T measured in zero magnetic field as a function of temperature, as shown in Fig. 6 of arXiv:2011.04880.