

## Supplementary Information

### Observation of ferromagnetism in $\text{CeCr}_2\text{Si}_2\text{C}$ single crystals

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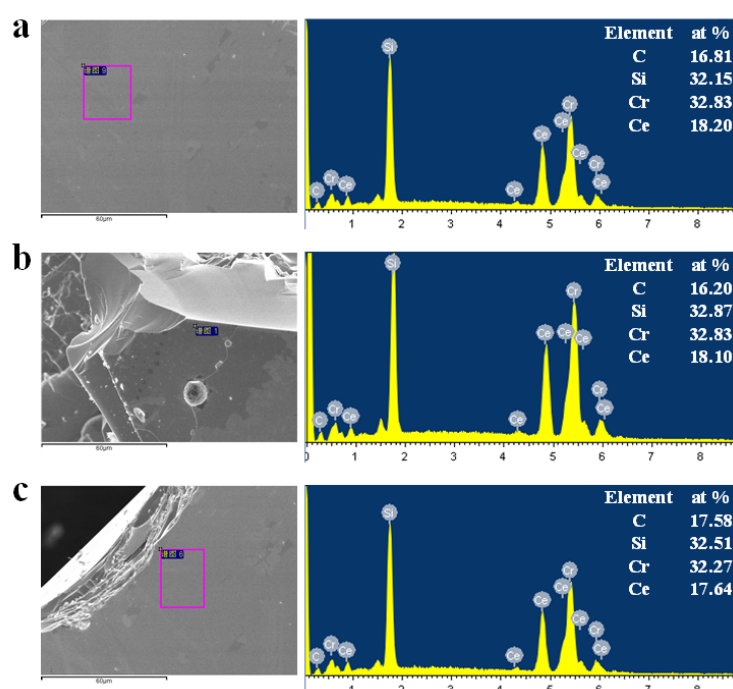
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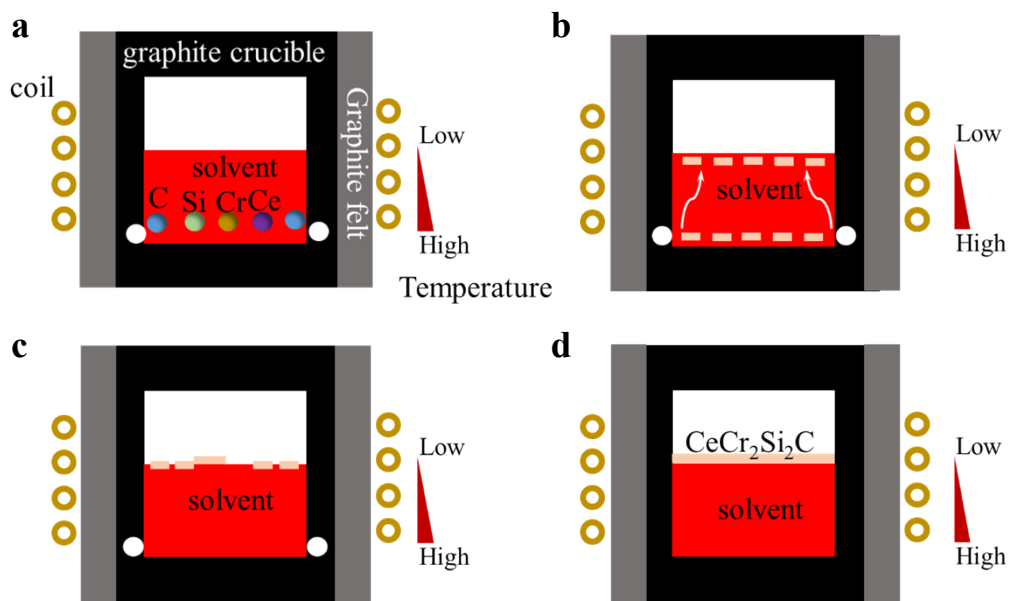
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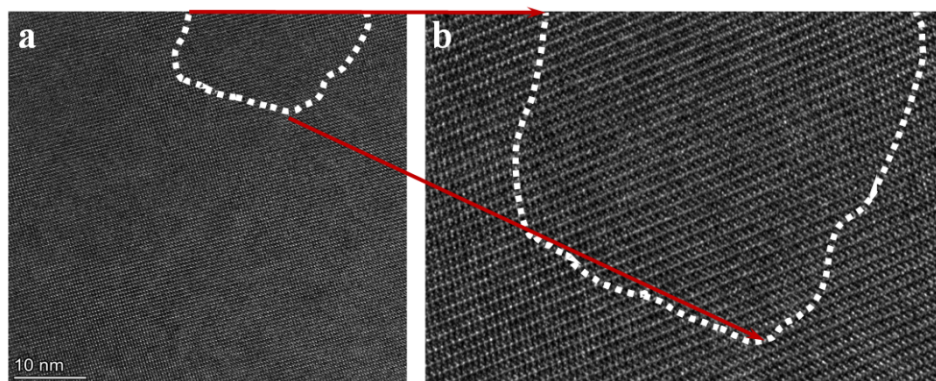
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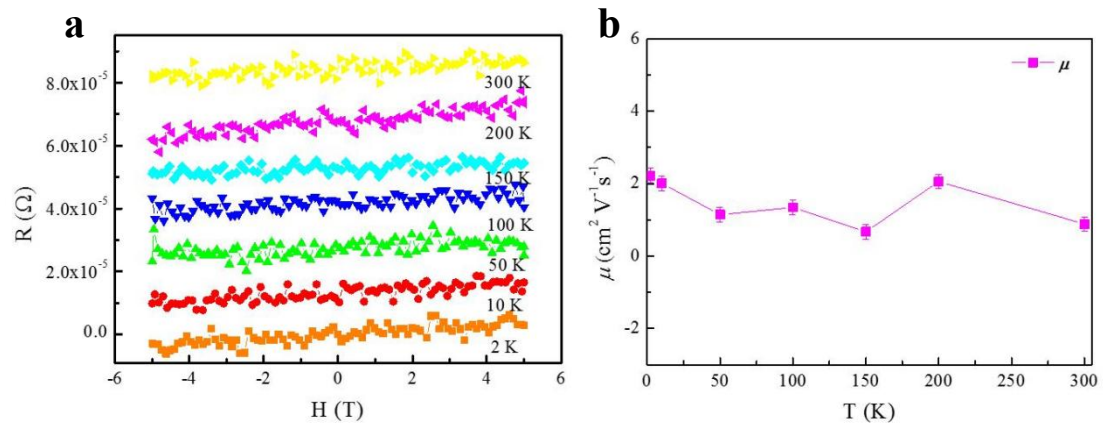
**Fig. S1.** EDXS spectra of  $\text{CeCr}_2\text{Si}_2\text{C}$  bulk single crystals.



**Fig. S2.** Illustration of the growth mechanism for  $\text{CeCr}_2\text{Si}_2\text{C}$  single crystals via high temperature solution technique.



**Fig. S3.** (a) HRTEM and (b) magnified HRTEM images of CeCr<sub>2</sub>Si<sub>2</sub>C single crystals, showing stacking disorders in the CeCr<sub>2</sub>Si<sub>2</sub>C single crystals.



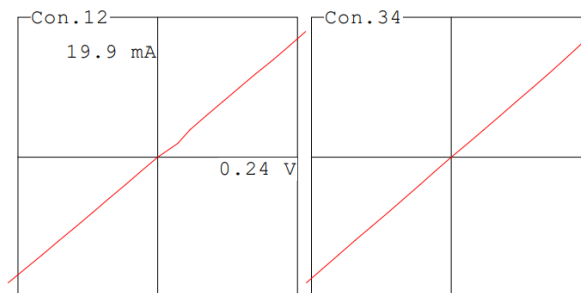
**Fig. S4.** (a) Hall resistivity ( $R - H$ ) and (b) mobility ( $\mu$ ) measured in the temperature region of 2-300 K for  $\text{CeCr}_2\text{Si}_2\text{C}$  bulk single crystals.

**RESULTS SUMMARY**

Rs: 0.006795 ohm/sq	RHs: +2.45e-06 m <sup>2</sup> C	Ns: +2.544e+20 /cm <sup>2</sup>
R : 0.0001359 ohm-cm	Mob: 3.61 cm <sup>2</sup> V <sup>-1</sup> s	N : +1.272e+22 /cm <sup>2</sup>

**CONTACT CHECK**

Pair	ohms
12	12
23	13
34	12
41	11
13	14
24	11



**Fig. S5.** Hall measurement results of CeCr<sub>2</sub>Si<sub>2</sub>C single crystals.