

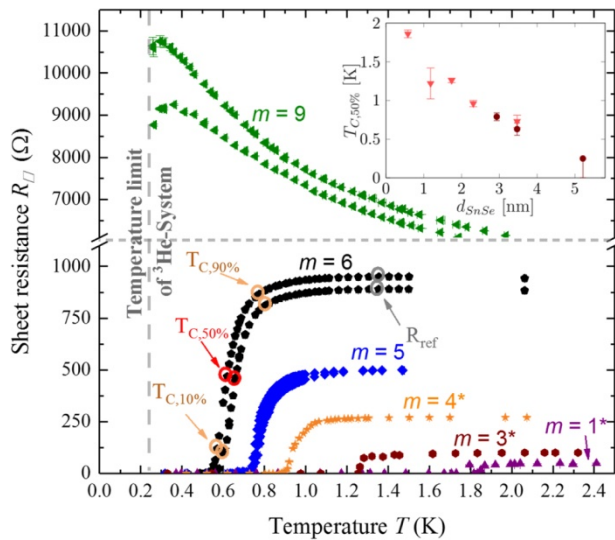
Superconductive coupling in tailored $[(\text{SnSe})_{1+\delta}]_m (\text{NbSe}_2)_1$ multilayers

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Short Abstract

Ferrecrystals are a new artificially layered material system in which the individual layers are stacked with monolayer precision but are turbostratically disordered. Here, we investigate the superconducting coupling of the NbSe_2 layers separated by m number of SnSe layers. We find a systematic decrease of the transition temperature with an increasing number of SnSe layers per repeat unit and observe a decoupling with increasing distance of the NbSe_2 layers.



Above. Temperature-dependent resistance for different ferrecrystals with $m = 1, 3, 4, 6,$ and 9 measured for two different sample geometries. The inset shows the transition temperature dependence on the separation of adjacent NbSe_2 layers.