



Library Indian Institute of Science Education and Research Mohali



DSpace@IISERMohali (/jspui/)
/ Publications of IISER Mohali (/jspui/handle/123456789/4)
/ Research Articles (/jspui/handle/123456789/9)

Please use this identifier to cite or link to this item: <http://hdl.handle.net/123456789/4403>

Title:	Andreev reflection in the enhanced superconducting phase of Cu _{0.04} PdTe ₂
Authors:	Vasdev, Aastha and (/jspui/browse?type=author&value=Vasdev%2C+Aastha++and) Yadav, C.S. (/jspui/browse?type=author&value=Yadav%2C+C.S.) Kumar, Ritesh (/jspui/browse?type=author&value=Kumar%2C+Ritesh) Hooda, M.K. (/jspui/browse?type=author&value=Hooda%2C+M.K.) Sheet, Goutam (/jspui/browse?type=author&value=Sheet%2C+Goutam)
Keywords:	Reflection Enhanced Superconducting Cu _{0.04} PdTe ₂
Issue Date:	2022
Publisher:	Elsevier
Citation:	Solid State Communications, 357(1), 114952.
Abstract:	A unique superconducting phase where type I and type II superconductivity coexist was seen below 1.7 K in the Dirac semimetal PdTe. The mixed superconducting phase was attributed to the local variation of the Ginzburg–Landau parameter() in PdTe. In such a scenario, it is imperative that introduction of disorder would make the system homogeneously type II. Here, we report our study of Point contact Andreev Reflection Spectroscopy on the 4% Cu intercalated PdTe single crystals. Cu-intercalates help enhance the critical temperature by donating carriers to the system, and at the same time act as scattering centres thereby reducing the effective . Our detailed magnetic field dependent point contact spectroscopy studies show a typical type-II behaviour in Cu-PdTe. A conventional BTK analysis of the spectra revealed a BCS-like gap = 330. With , Cu-PdTe falls in the strong coupling regime.
Description:	Only IISER Mohali authors are available in the record.
URI:	https://doi.org/10.1016/j.ssc.2022.114952 (https://doi.org/10.1016/j.ssc.2022.114952) http://hdl.handle.net/123456789/4403 (http://hdl.handle.net/123456789/4403)
Appears in Collections:	Research Articles (/jspui/handle/123456789/9)

Files in This Item:

File	Description	Size	Format	
Need To Add...Full Text_ PDF..pdf (/jspui/bitstream/123456789/4403/1/Need%20To%20Add%e2%80%a6Full%20Text_ PDF..pdf)		15.36 kB	Adobe PDF	View/Open (/jspui/handle/123456789/4403/bitstream/123456789/4403/1/Need%20To%20Add%e2%80%a6Full%20Text_ PDF..pdf)

[Show full item record \(/jspui/handle/123456789/4403?mode=full\)](#)

[Statistics \(/jspui/handle/123456789/4403/statistics\)](#)

Items in DSpace are protected by copyright, with all rights reserved, unless otherwise indicated.