JETP Letters 2016 vol.103 N3, pages 190-195

Temperature dependence of the penetration depth of a magnetic field in the presence of dispersion of the superconducting and charge density wave order parameters

Eremin M., Sunyaev D.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

© 2016, Pleiades Publishing, Inc.A formula for computing the temperature dependence of the London penetration depth of a magnetic field in the regime of coexistence of charge density waves and superconductivity has been proposed taking into account the dependence of both order parameters on the wave vector. It has been shown that an anomalously high diamagnetic response of the system and a finite value of the superconducting current persist even at Tc ≤ T ≤ TCDW.

http://dx.doi.org/10.1134/S0021364016030061