SEMINARIUM - ON 3

Uprzejmie zawiadamiamy, że w **ŚRODĘ**

20 grudnia br., o godz. 10:00

w sali 203 (bud.1) odbędzie się seminarium, na którym

Tarek Rashad Ebrahim Hammad

Physics Department, Faculty of Science, Helwan University, Cairo, Egypt

wygłosi referat na temat:

„Magnetic field penetration depth investigations in magnetically grain-aligned Ce-doped Nd_2CuO_4 cuprate superconductors"

Streszczenie

Preparation of Ce-doped Nd_2CuO_4 high quality superconducting samples was attained. The c-axis alignment of the grains of those samples in the form of powder was achieved by applying an external magnetic field of 1 T perpendicular to the axis of rotation of powder/epoxy tetragonal holder. The temperature dependencies of the in-plane penetration depth $_{ab}$ and out-of-plane penetration depth $_c$ were obtained by measuring the zero-filed-cooled ac diamagnetic susceptibility $_d$ (T) in a low applied field (B_a = 10 Oe). For $Nd_{1.85}Ce_{0.15}CuO_{4+}$ sample, the relative change of the temperature dependence of penetration depth (T) = (T)- (0) for both c-axis parallel and perpendicular to the applied field can be fitted to a quadratic temperature dependence, what suggests d-wave rather than s-wave-like character of the pairing function, up to 0.5 T_c. This result is in agreement with recent experiments suggesting the unconventional pairing nature of electron-doped NdCeCuO cuprates.

Serdecznie zapraszamy

Roman Puźniak

Andrzej Wiśniewski