National Conference on Recent Innovation in Science and Engineering
Organised by
PES Institute of Technology, Bangalore South Campus, Bangalore, Karnataka, India
International Journal of Scientific Research in Science, Engineering and Technology

A Study of Cuprate Crystallographic Structure Related to Super Conductor

Dr. Lav Kumar
P.G.T., Department of Physics, S.R.P.S Govt. + 2 School
Gardanibagh, Patna, India

ABSTRACT

Temperature dependent magnetoresistance of $Bi_2Sr_2CaCu_2O_8$ high T_c-superconductors was evaluated along a b and c planes for magnetic field H=0.0.05and 7 Tesla. Our evaluated results indicate that magnetoresistance is higher in ab plane as compared to c-plane for magnetic field H=0.05 and 7 Tesla. Our evaluated results indicate that magnetoresistance is higher in ab plane as compared to c-plane. The value increases sharply with temperature at constant magnetic field. For H=0, sharp increase was noticed at 90K, for H = 0.5t it kis observed at 60k and for H =7 T the increase is found at 30k. our evaluated results are in good agreement with those of the other theoretical workers.

Keywords : Magnetoresistance. High T_c-Superconductor, Tesla, Transport Current, Current Density.