

Abstract Submitted
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Magnetic Transport Properties in Pressure-Induced Superconductor EuFe_2As_2 NOBUYUKI KURITA, MOTOI KIMATA, KOTA KODAMA, HIDETAKA SATSUKAWA, ATSUSHI HARADA, HIROYUKI SUZUKI, TAKEHIKO MATSUMOTO, SHINYA UJI, TAICHI TERASHIMA, National Institute for Materials Science, KEIZO MURATA, Graduate School of Science, Osaka City University — A systematic pressure investigation of magnetoresistance and Hall effect has been performed on the antiferromagnetic compound EuFe_2As_2 which exhibits pressure-induced superconductivity ($T_c \sim 30$ K and $P_c \sim 2.5$ GPa). At ambient pressure, temperature dependence of Hall coefficient R_H indicates that the dominant carrier below $T \sim 190$ K (T : Structural and magnetic transition temperature) is electron-like. As pressure increases, both of the down-turn associated with T and anomalous roll-over around 30 K in R_H become less pronounced and shift to low temperature region. We will also refer to the temperature and field dependence of Hall angle θ_H with applied pressures.

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