Transport and Magnetic Properties of ErNi2B2C

W.C. LEE, Dept. of Physics. Sookmyung Women’s Univ. Seoul 140-742, Korea — We measured the magnetization $M(H,T)$ and magnetoresistivity $\rho(H,T)$ of ErNi2B2C single crystal for magnetic fields perpendicular and parallel to the c-axis and with the current along the c-axis at low temperature regions. From the magnetoresistivity measurements with the current along c-axis, we constructed the $H_{c2}(T)$ curves for magnetic perpendicular and parallel to the c-axis and those were compared for curves with the current perpendicular to the c-axis. Also we constructed a magnetic phase diagram only the magnetic field perpendicular to the c-axis.