

G2-O01-M

THERMOELECTRIC PROPERTIES OF Mg_2Si PROCESSED BY SPARK PLASMA SINTERING METHOD. *Naoki Arita, Shunji Sakurai, Hiroki Kurisu, Setsuo Yamamoto and Mitsuru Matsuura (Faculty of Engineering, Yamaguchi University, Tokiwadai, Ube-city, Japan).*

Mg_2Si were prepared by using the solid-state reaction and Spark Plasma Sintering (SPS). Temperature dependence of thermoelectric properties such as seebeck coefficient, electrical conductivity was measured. The value of the power factor 1.6×10^{-3} (W/mK^2) was obtained at 483K, which are comparable to the previous best results obtained recently. Density dependence of thermoelectric properties was examined in details. Seebeck coefficient decreases, while electrical conductivity and power factor increase with increase in density.