

||||| 特集 1：磁場を利用した高温融体の熱物性測定とプロセッシング |||||  
(解説)

## 強磁場利用による In-Sn 融液中の 相互拡散係数の高精度計測

稲富 裕光・三宅 琢磨・栗林 一彦

### **Precise Measurement of Inter-diffusion Coefficient in In-Sn Melt by Utilization of Strong Static Magnetic Field**

Yuko INATOMI, Takuma MIYAKE and Kazuhiko KURIBAYASHI

#### **Abstract**

Some experimental conditions for diffusion experiment in a static magnetic field were derived by a numerical simulation. Based on the calculated results, diffusion coefficient in In-Sn melt was measured precisely by utilization of a strong static magnetic field from the melting point to 1500 K. The obtained coefficients near the melting point agreed well with those estimated by a hard sphere model. However, the experimental values at high temperature was higher than expected by the model.