

||||| 特集 2 : 最近の浮遊技術を利用した熱物性および構造測定 |||||
(解説)

静電浮遊炉を用いた熱物性測定

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Thermophysical Properties Measurements Using an Electrostatic Levitation Furnace

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Abstract

Thermophysical properties of molten refractory metals have been measured using an electrostatic levitation method. An electrostatic levitation furnace has been developed and could stably levitate molten samples at temperature exceeding 2,000 degrees C. In addition, non-contact thermophysical properties measurement techniques have been implemented to the levitator furnace, and such thermophysical properties as density, heat capacity, heat of fusion, surface tension, and viscosity have been measured over wide temperature ranges including the undercooled region.