

SMP056-P01

会場:コンベンションホール

時間: 5月23日17:15-18:45

マルチアンビル装置のための圧力定点再考

Pressure-induced metallization in several semiconductor and its applications to pressure fixed point for multi-anvil app

國本 健広^{1*}, 入船 徹男¹

takehiro kunimoto^{1*}, Tetsuo Irifune¹

¹愛媛大学地球深部ダイナミクス研究センター

¹Geodynamics Research Center, Ehime-univ.

The pressure of pressure-induced metallization (electrical resistance change) in GaP, GaAs, ZnS and ZnTe at room temperature was determined by detecting electrical resistance and in situ X-ray diffraction experiment system in order to use as a pressure fixed point for multi-anvil apparatus, its pressure were decided from the unit cell volume of pressure standard materials (Au and NaCl) and their equation of state. As an example, metallization pressure determined by used NaCl Decker scale were listed as follows: for GaP 22.9 GPa, for GaAs 18.6 GPa, for ZnS 16.2 GPa, ZnTe 12.1 GPa and 10.0 GPa.

キーワード:圧力定点,マルチアンビル装置,圧力誘起金属化

Keywords: pressure fixed point, pressure-induced metallization