

Ag – Ge (Silver – Germanium)

Phase diagram

At high pressure and high temperature Fujinaga et al. [91 Fuj] have found an intermediate phase which they designated ζ . The authors proposed 7 GPa phase equilibria as reproduced in Fig. 1.

Crystal structure

Using synchrotron X-ray diffraction, [91 Fuj] have determined the structure of ζ . It is hexagonal-close-packed, the lattice parameters of which are plotted in Fig. 2.

Yuantao et al. [92 Yua] by X-ray diffractography have determined lattice constants of fcc (Ag) solid solutions. The results obtained are plotted in Fig. 3.

Figures

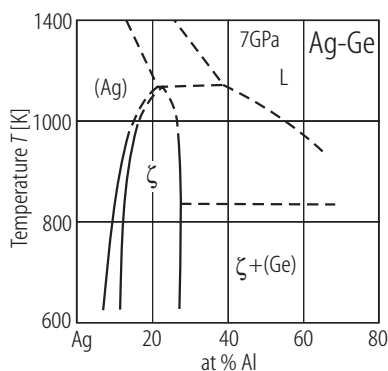


Fig. 1. Ag-Ge. Partial phase diagram at 7 GPa [91 Fuj].

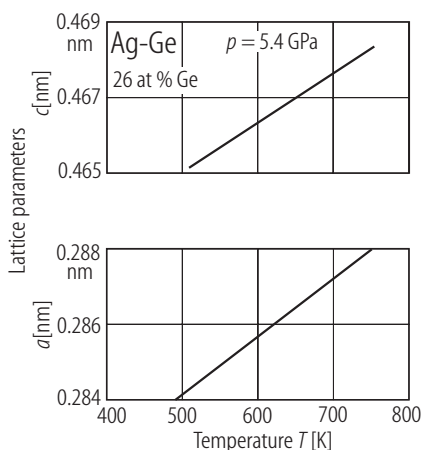


Fig. 2. Ag-Ge. Lattice parameters of hexagonal ζ phase at 26 at% Ge and 5.4 GPa [91 Fuj].

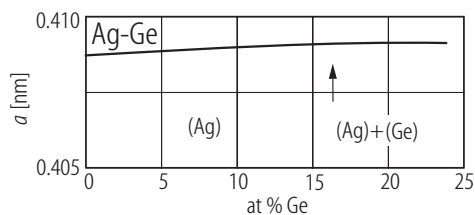


Fig. 3. Ag-Ge. Lattice parameters of fcc (Ag) solid solutions [92 Yua].

References

- [91 Fuj] Fujinaga, Y., Kusaba, K., Syano, Y., Iwasaki, H., Kikegawa, T.: J. Less-Common Met. **170** (1991) 277
 [92 Yua] Yuantao, N., Xinming, Z.: J. Alloys and Comp. **182** (1992) 131