

Au – Si (Gold – Silicon)

Metastable alloys

By quenching droplets of liquid Au-Si alloys containing 25 at% Si in liquid water (room temperature) George et al. [98 Geo] found that some of the solidified droplets are consisting of body centered orthorhombic metastable phase Au₃Si. The lattice parameters are:

$$a = 0.7382 \text{ nm}$$

$$b = 0.5355 \text{ nm}$$

$$c = 1,1160 \text{ nm.}$$

Reference

[98 Geo] George, D.K., Johnson, A.A., Storey, R.J.: Mater. Sci. Eng. **B55** (1998) 221