

Au-Sn (Gold-Tin)

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The Au-Sn phase diagram in [Massalski2] was modified by [1993Oka] around the β and ζ phase fields. These phases were shown in [Massalski2] to decompose eutectoidally at low temperatures, but [1993Ciu] showed that they do not decompose at least down to 200 °C. Therefore, the low-temperature ends of the β and ζ phases were not shown in [1993Oka].

Figure 1 shows the Au-Sn phase diagram calculated by [2003Liu]. According to this phase diagram, ζ' phase is also unstable at temperatures below -67 °C. Although this phase diagram does not conflict with earlier reports, the eutectoidal decomposition temperatures of β , ζ , and ζ' phases must be confirmed experimentally.

References

- 1993Ciu:** J. Ciulik and M.R. Noris, The Au-Sn Phase Diagram, *J. Alloys Compd.*, 1993, **191**, p 71-78
1993Oka: H. Okamoto, Au-Sn (Gold-Tin), *J. Phase Equilib.*, 1993, **14**(6), p 765-766
2003Liu: H.S. Liu, C.L. Liu, K. Ishida, and Z.P. Jin, Thermodynamic Modeling of the Au-In-Sn System, *J. Electron. Mater.*, 2003, **32**(11), p 1290-1296

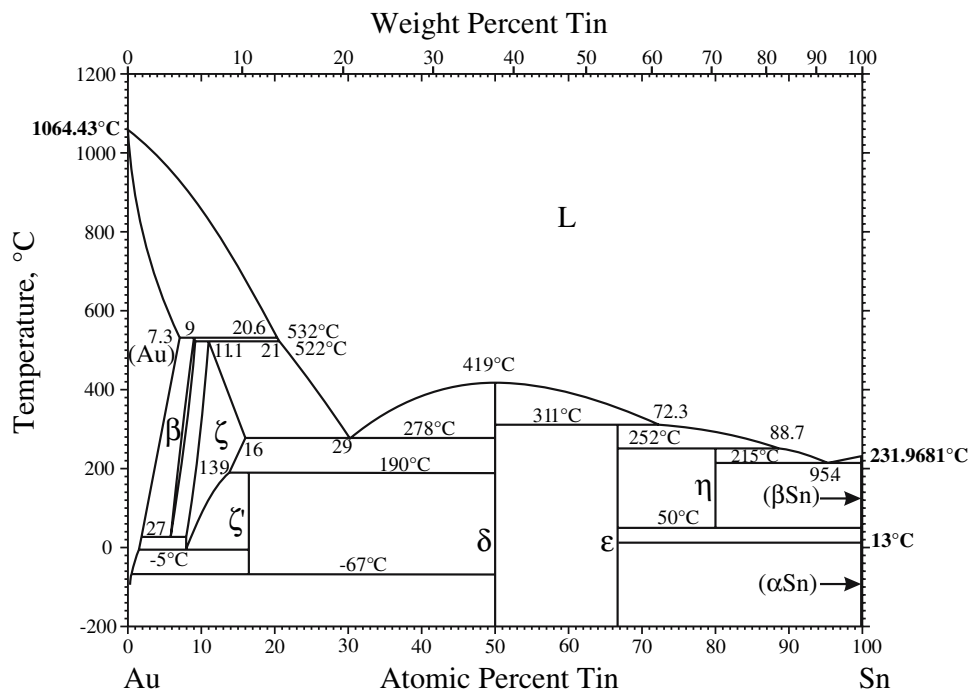


Fig. 1 Au-Sn phase diagram