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Ag-Ga (Silver-Gallium)

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[1992Oka] Modified the Ag-Ga phase diagram in [Massalski2] by adding AgGa and refining the forms of the ζ and ζ′ phases according to [1991Fes].

However, [2006Zha] concluded that Ag_3Ga_2 exists instead of AgGa based on many data in the literature. They assessed the Ag-Ga system thermodynamically and obtained the phase diagram shown in Fig. 1.

Ag-Ga crystal structure data are given in Table 1.

References

1991Fes: P. Feschotte and P. Bass, A Very Shy New Intermetallic Compound AgGa, *J. Less-Common Met.*, 1991, **171**, p 157-162 in French

1992Oka: H. Okamoto, Ag-Ga (Silver-Gallium), *J. Phase Equilibria*, 1992, **13**(3), p 324-325

2006Zha: Y. Zhang, J.B. Li, J.K. Kiang, Q.L. Liu, Y.G. Xiao, Q. Zhang, G.H. Rao, and C.R. Li, Thermodynamic Assessment of the Ag-Ga System, *Calphad*, 2006, **30**, p 316-322

Table 1 Ag-Ga crystal structure data

Phase	Composition, at.% Ga	Pearson symbol	Space group	Struktur bericht designation	Prototype
(Ag)	0 to 18.7	*cF*4	$Fm\bar{3}m$	*A*1	Cu
ζ	22.1 to 36.1	*hP*2	$P6_3/mmc$	*A*3	Mg
ζ′	24.6 to 33.1	*hP*9	$P\bar{3}$	B_b	ζAgZn
Ag_3Ga_2	40	...	...	...	...
(Ga)	100	*oC*8	*Cmca*	*A*11	αGa

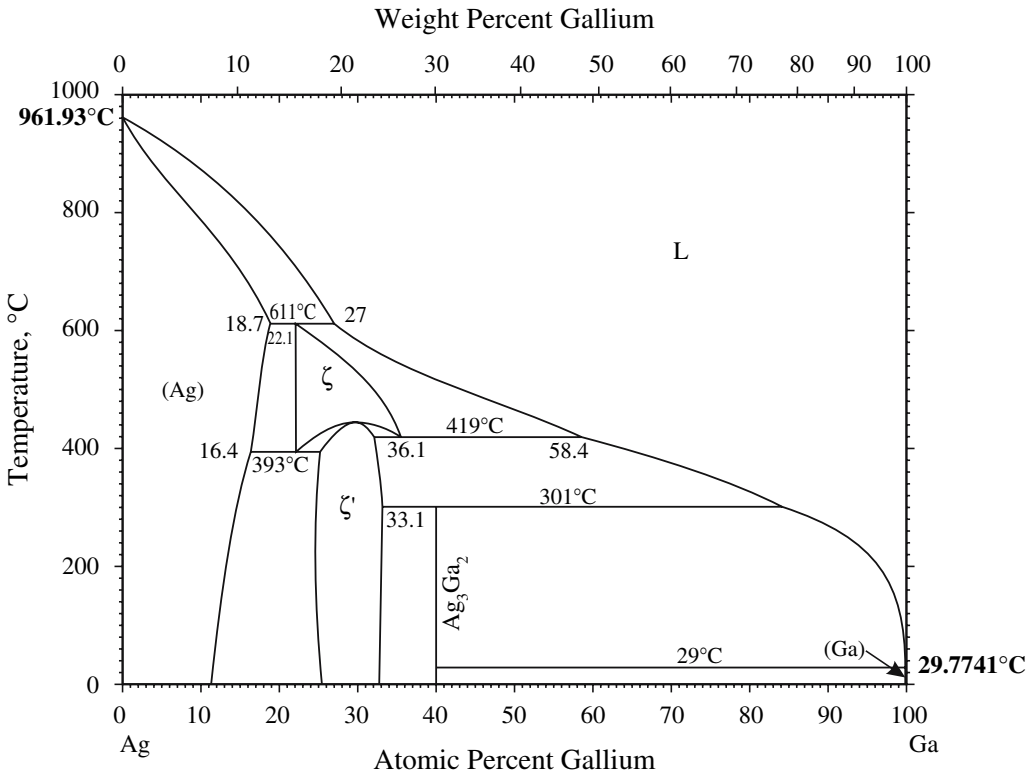

Fig. 1 Ag-Ga phase diagram