

# Ga-Pb (Gallium-Lead)

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The Ga-Pb phase diagram in [Massalski2] was redrawn from [1991Ans] (solid lines in Fig. 1). [1998Oka] introduced the liquid miscibility gap calculated by [1996Mat] based on their high-temperature differential scanning calorimetry measurement data (Fig. 1).

[2003Ple] reinvestigated the liquid miscibility gap by acoustic, viscometric, and electrical conductivity measurements. The results are shown in Fig. 1. The critical temperature obtained by the electrical conductivity measurement is approximately 50 °C higher than that obtained by other methods. [2003Ple] considered that this difference resulted from the fact that the conductivity measurement reflects the behavior of free electrons, whereas the other two methods reflect the behavior of particle interactions.

## References

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- 2003Ple:** Y. Plevachuk, V. Filippov, V. Kononenko, P. Popel, A. Rjabina, V. Sidorov, and V. Sklyarchuk, Investigation of the Miscibility Gap Region in Liquid Ga-Pb Alloys, *Z. Metallkde.*, Vol 94 (No. 9), 2003, p 1034-1039

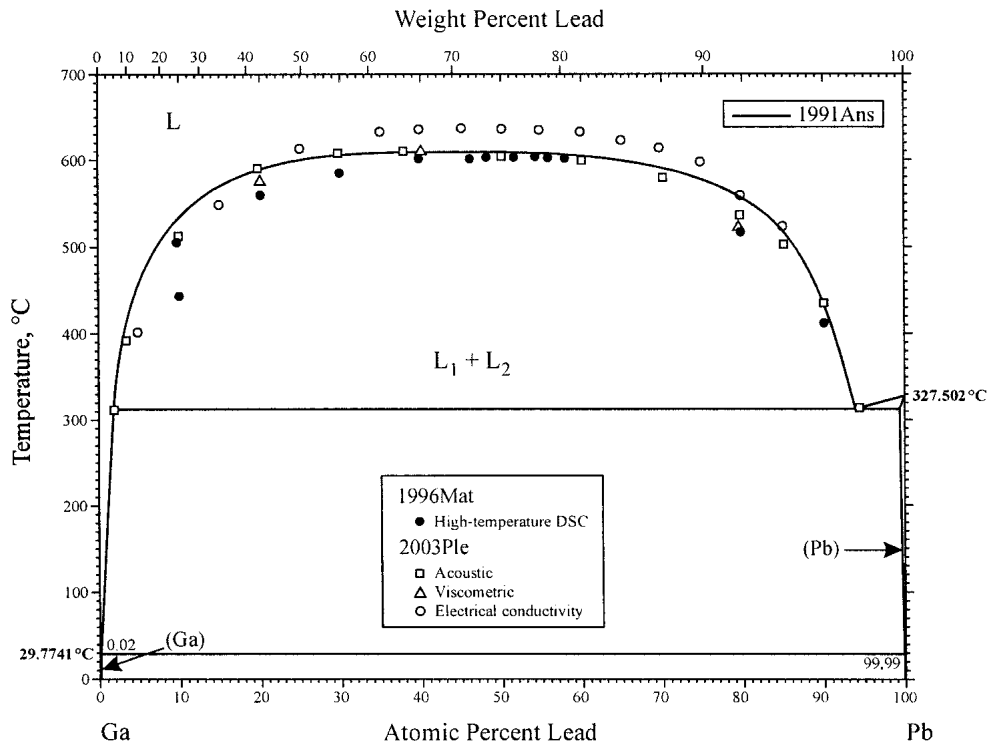


Fig. 1 Ga-Pb phase diagram