

# C-Ti (Carbon-Titanium)

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[95Alb] proposed a Ti-C phase diagram (see [95Oka] lit. rev.) by thermodynamic optimization of phase boundary data obtained by [65Rud], [89Loo], and [95Alb], and thermodynamic data obtained by [95Alb]. However, [96Sei] found that the Gibbs energy description of the liquid phase used by [95Alb] is a mathematical artifact not warranted experimentally. Figure 1 shows the Ti-C phase diagram calculated by [96Sei]. The result agrees well with experimental phase boundary data reported by [53Cad], [56Wag], [59Bic], [62Bit], [65Rud], and [89Loo]. In addition to TiC in Fig. 1, an ordered phase  $Ti_2C$  may exist with a maximum transformation temperature at  $\sim 1900^\circ C$  [87Mur].

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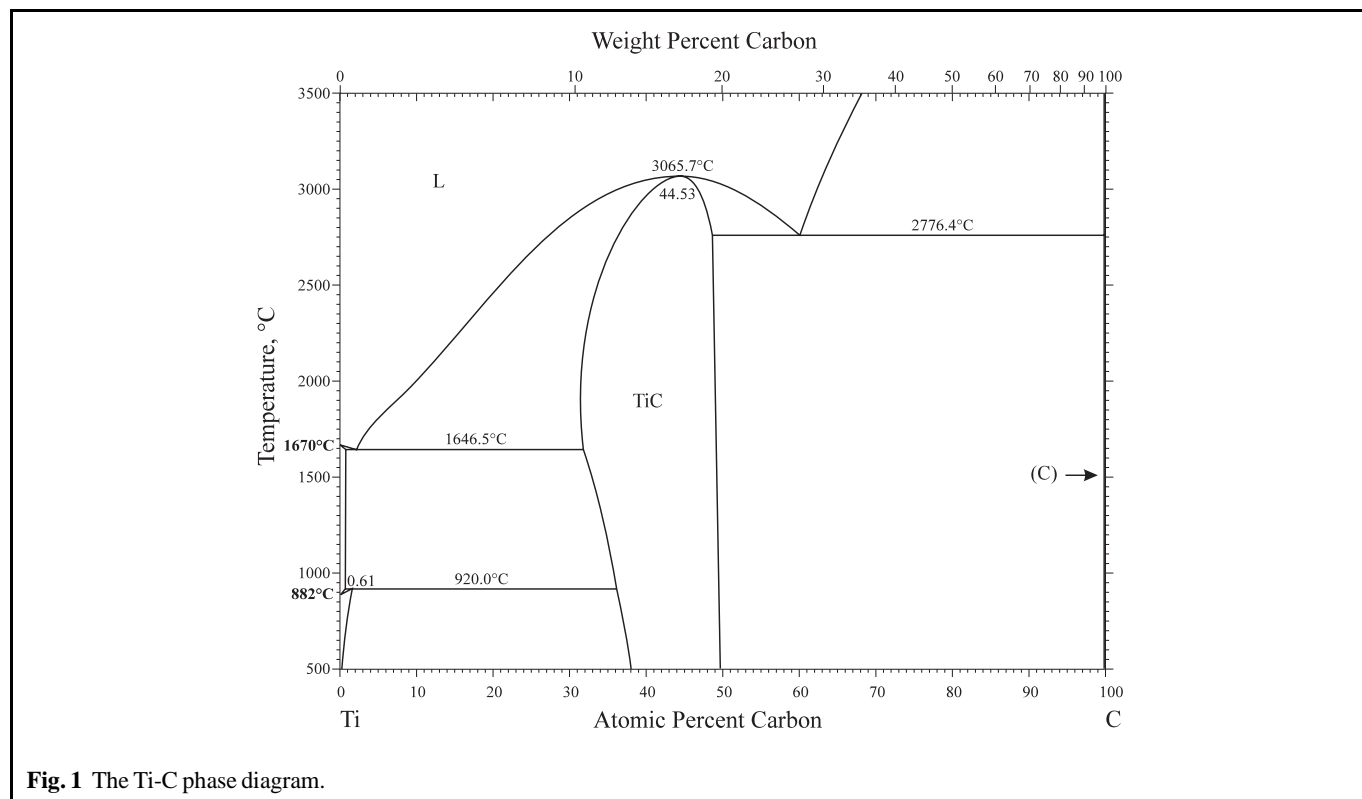


Fig. 1 The Ti-C phase diagram.