# Cu-Ag

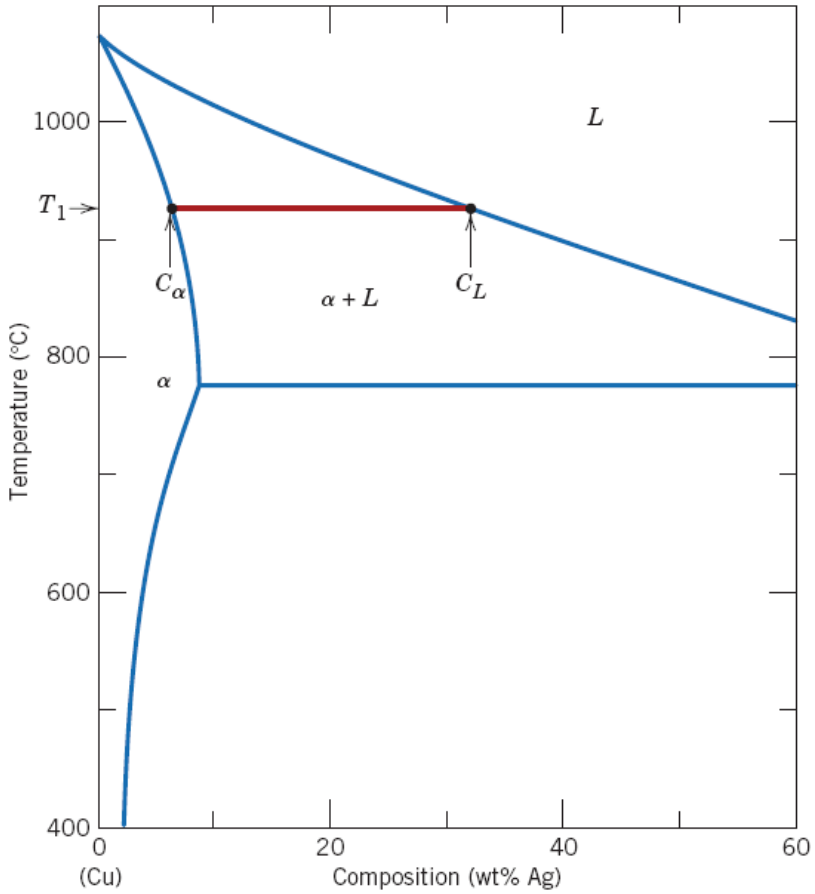
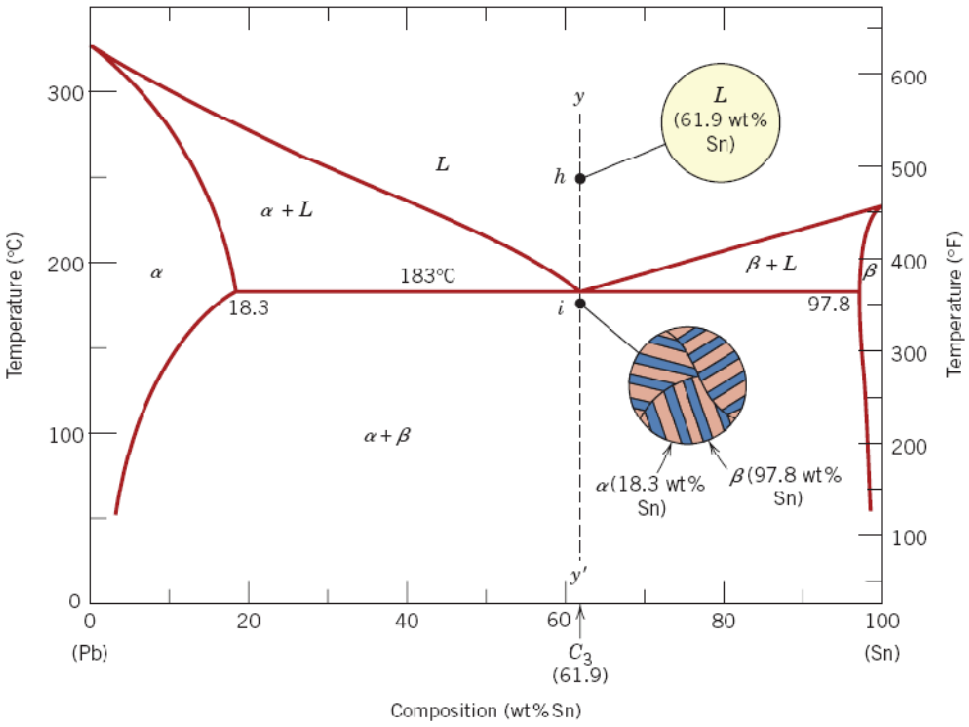



**Figure 9.23** Enlarged copper-rich section of the Cu–Ag phase diagram in which the Gibbs phase rule for the coexistence of two phases ($\alpha$ and $L$) is demonstrated. Once the composition of either phase ($C_\alpha$ or $C_L$) or the temperature ($T_1$) is specified, values for the two remaining parameters are established by construction of the appropriate tie line.

# Pb-Sn

**Figure 9.13** Schematic representations of the equilibrium microstructures for a lead–tin alloy of eutectic composition $C_3$ above and below the eutectic temperature.



# Ni-Ti

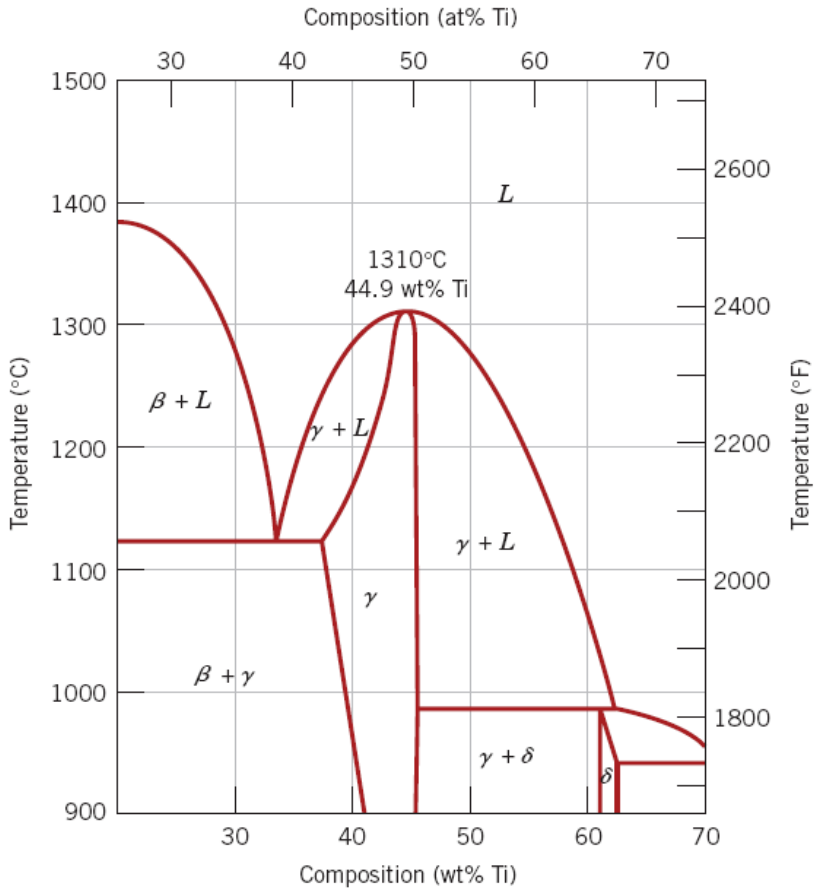



**Figure 9.22** A portion of the nickel–titanium phase diagram on which is shown a congruent melting point for the γ-phase solid solution at 1310°C and 44.9 wt% Ti. [Adapted from *Phase Diagrams of Binary Nickel Alloys*, P. Nash (Editor), 1991. Reprinted by permission of ASM International, Materials Park, OH.]

# Mg-Pb

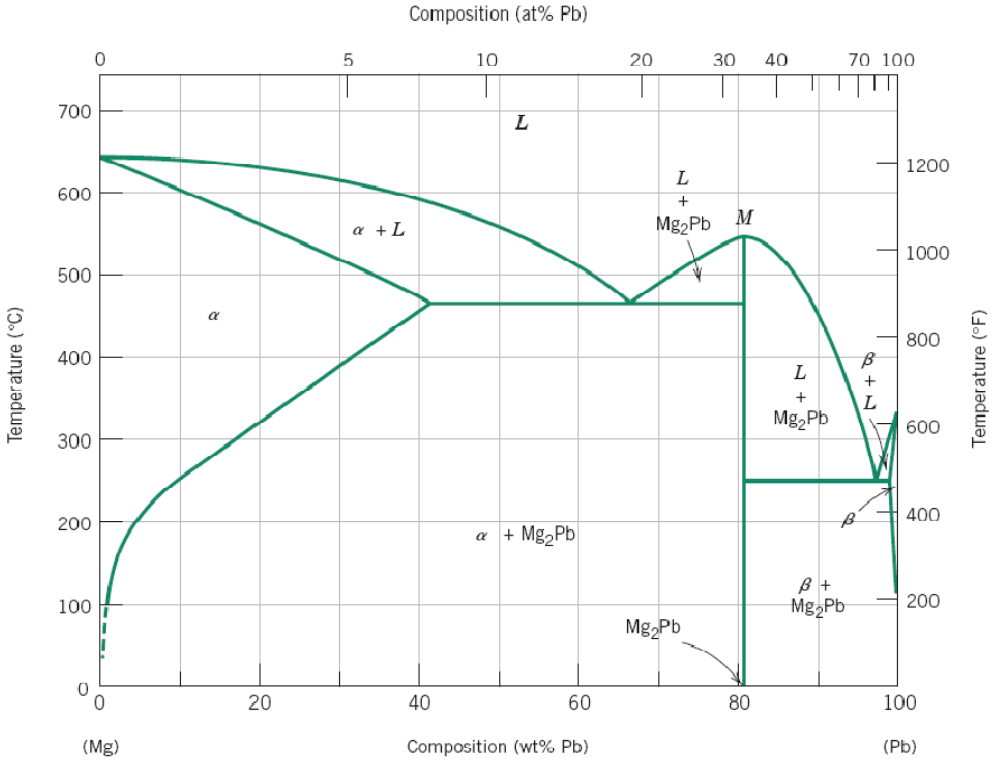



**Figure 9.20** The magnesium–lead phase diagram. [Adapted from *Phase Diagrams of Binary Magnesium Alloys*, A. A. Nayeb-Hashemi and J. B. Clark (Editors), 1988. Reprinted by permission of ASM International, Materials Park, OH.]

# Cu-Zn

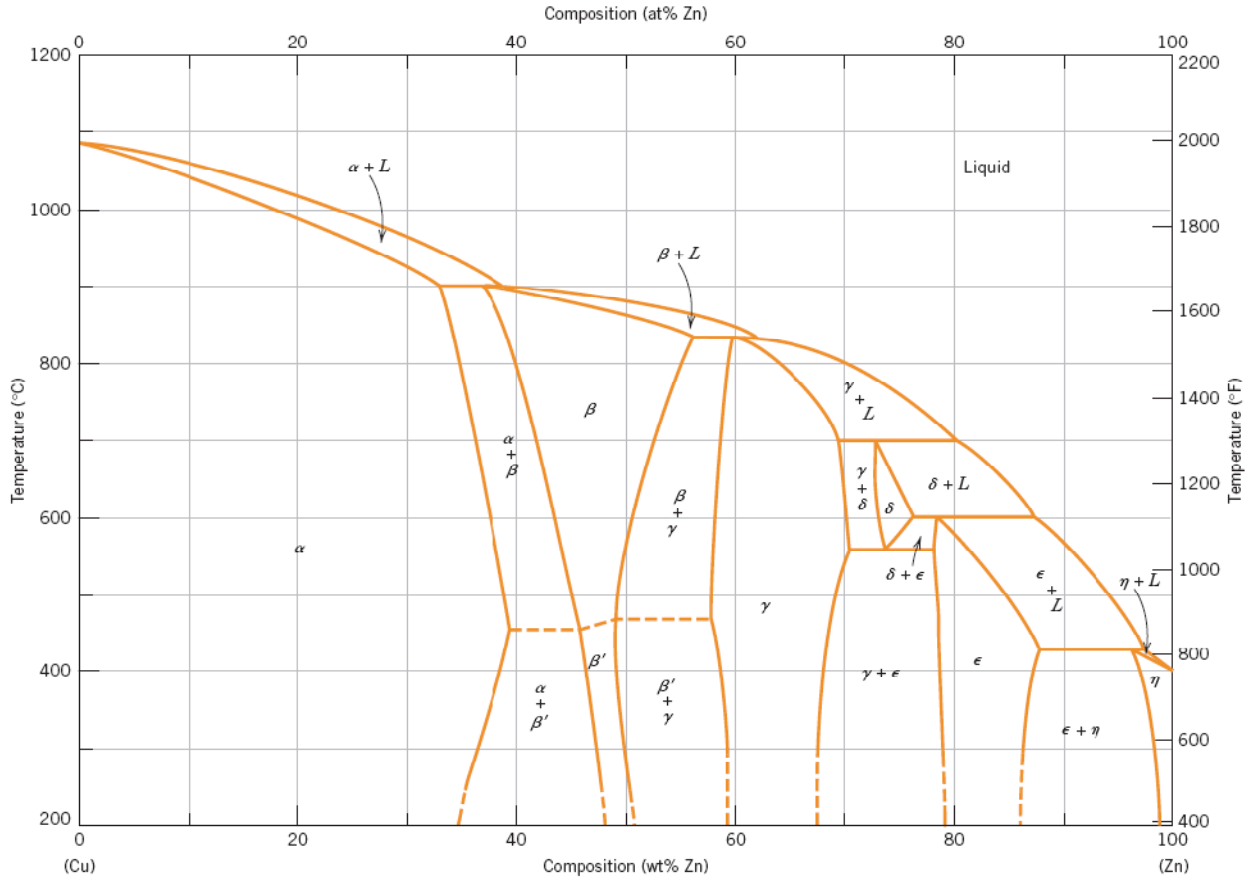



**Figure 9.19** The copper–zinc phase diagram. [Adapted from *Binary Alloy Phase Diagrams*, 2nd edition, Vol. 2, T. B. Massalski (Editor-in-Chief), 1990. Reprinted by permission of ASM International, Materials Park, OH.]

# Fe-$Fe_3C$

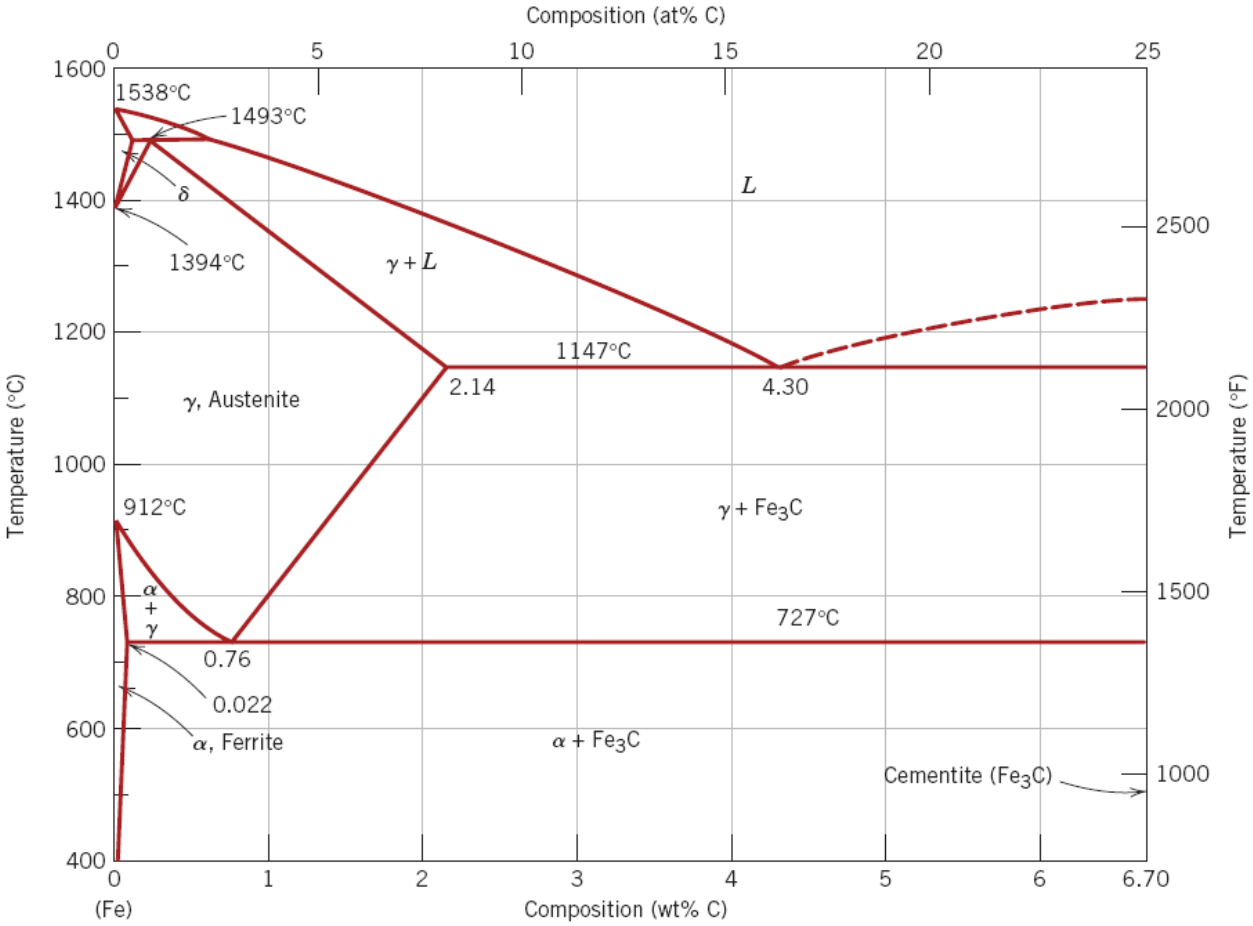



**Figure 9.24** The iron–iron carbide phase diagram. [Adapted from *Binary Alloy Phase Diagrams*, 2nd edition, Vol. 1, T. B. Massalski (Editor-in-Chief), 1990. Reprinted by permission of ASM International, Materials Park, OH.]