

11.21 This question asks that we cite the approximate minimum temperature at which it is desirable to austenitize several iron-carbon alloys during a normalizing heat treatment.

- (a) For 0.15 wt% C, heat to at least 915°C (1680°F) since the  $A_3$  temperature is 860°C (1580°F).
- (b) For 0.50 wt% C, heat to at least 825°C (1520°F) since the  $A_3$  temperature is 770°C (1420°F).
- (c) For 1.10 wt% C, heat to at least 900°C (1655°F) since the  $A_{cm}$  temperature is 845°C (1555°F).