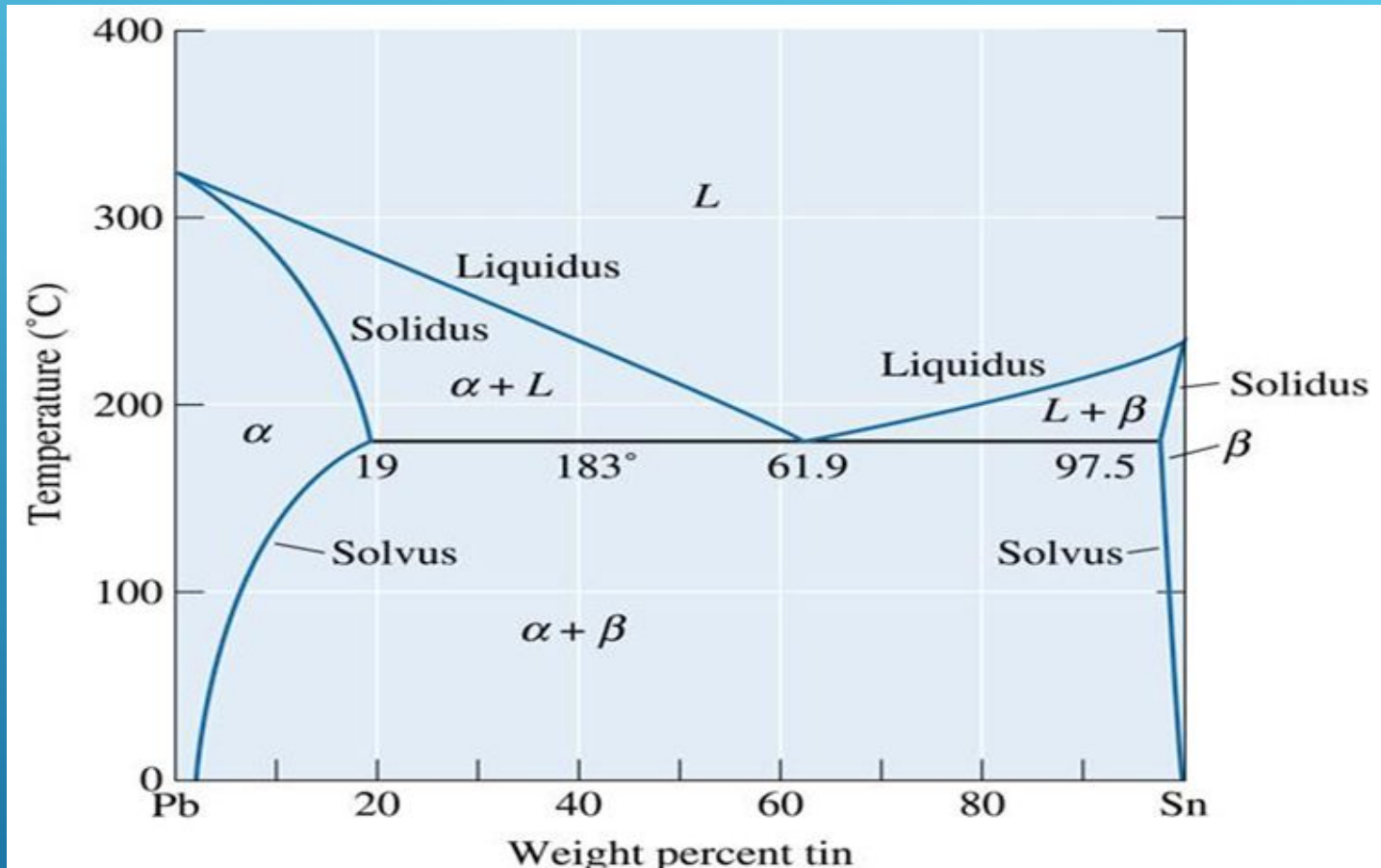


DIAGRAMA ENVOLVENDO 3 FASES (EUTÉTICO)

Lauralice Canale



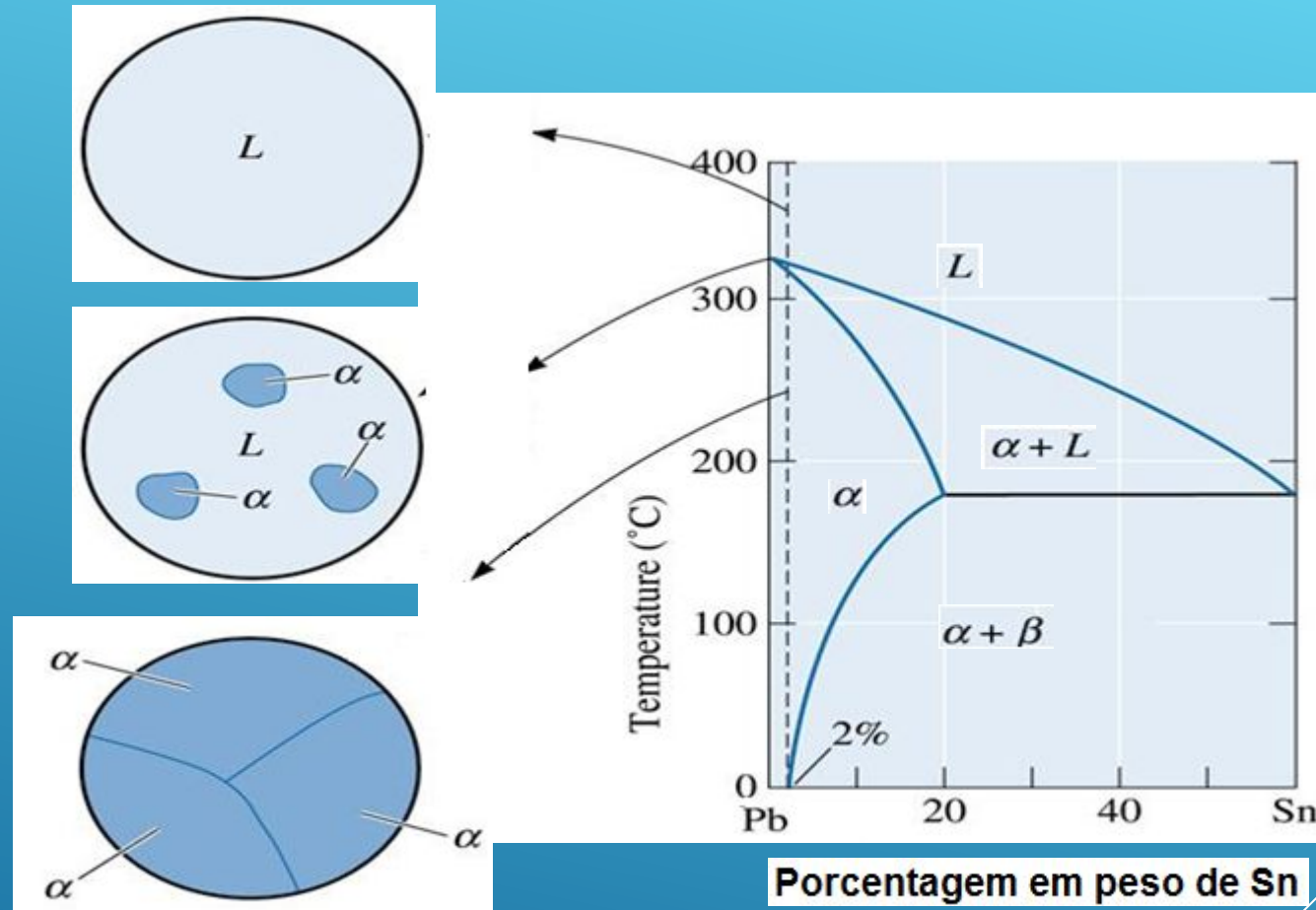
DIAGRAMA DE FASE EUTÉTICO



SOLVUS –

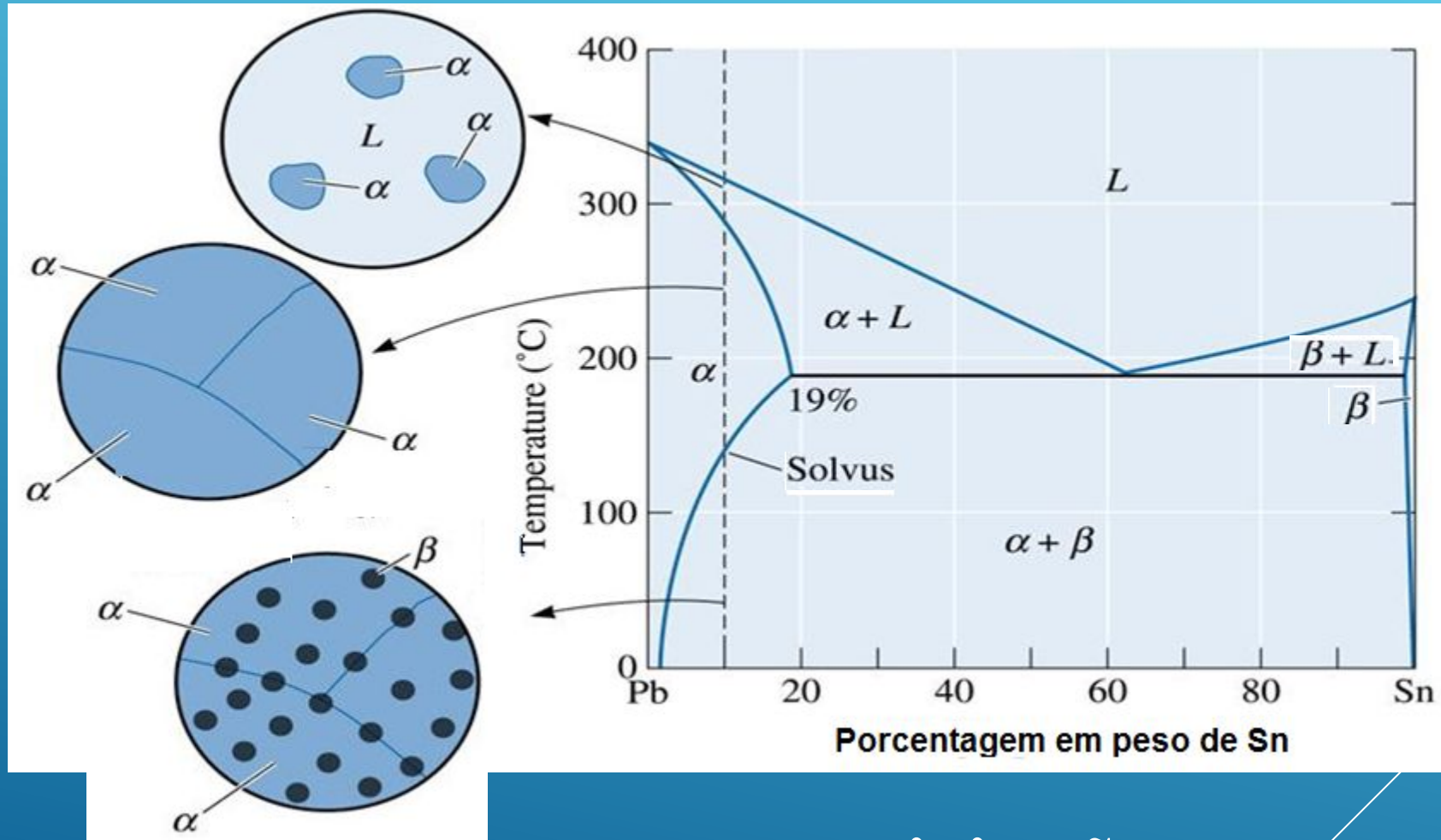
Uma curva de solubilidade que separa uma região de uma única fase para uma região de duas fases .

Solidificação e microestrutura de uma liga de Pb-2% Sn.



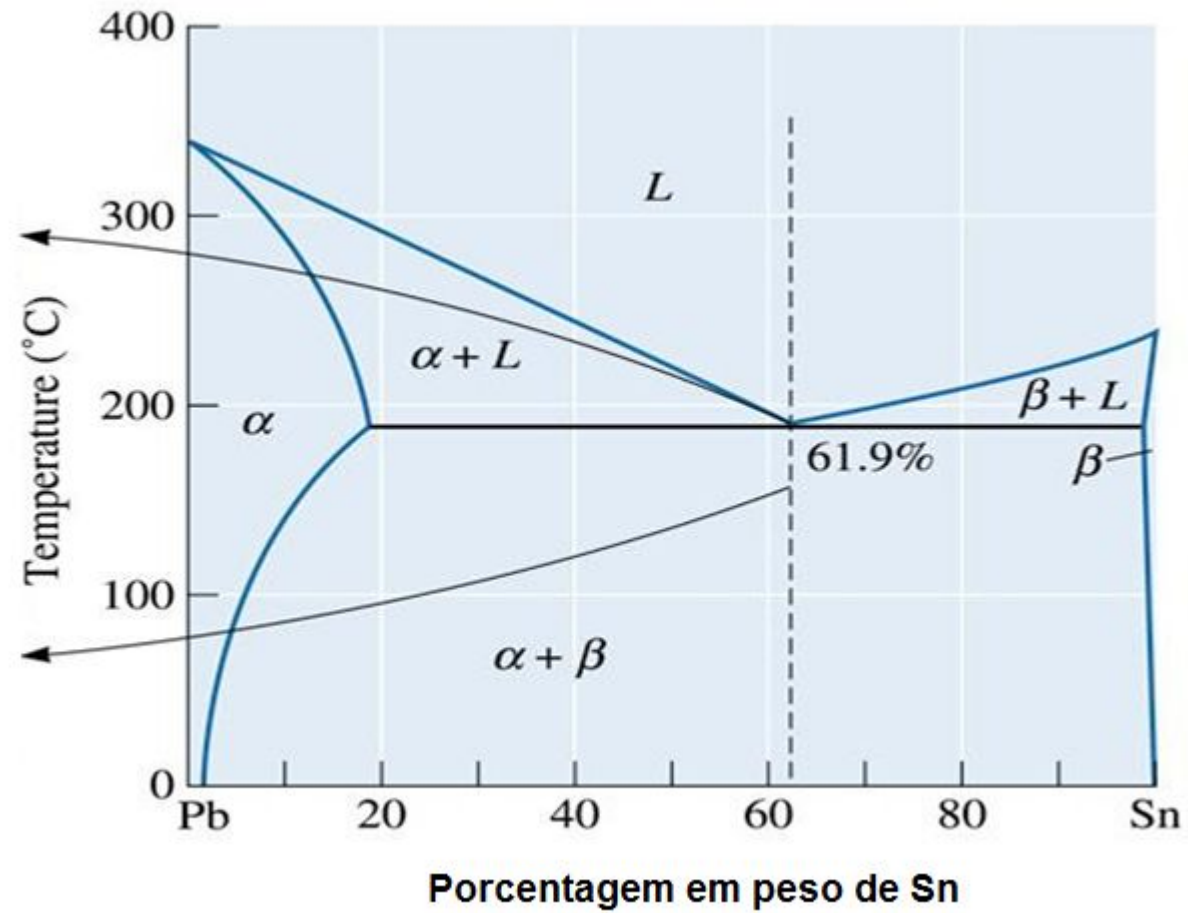
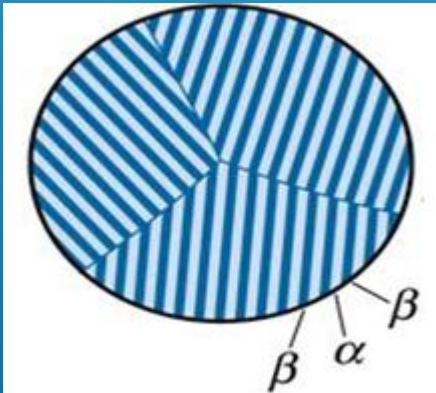
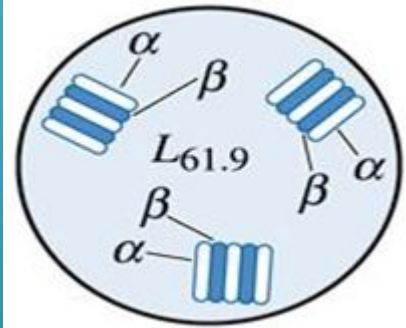
A liga é uma solução sólida de fase única.

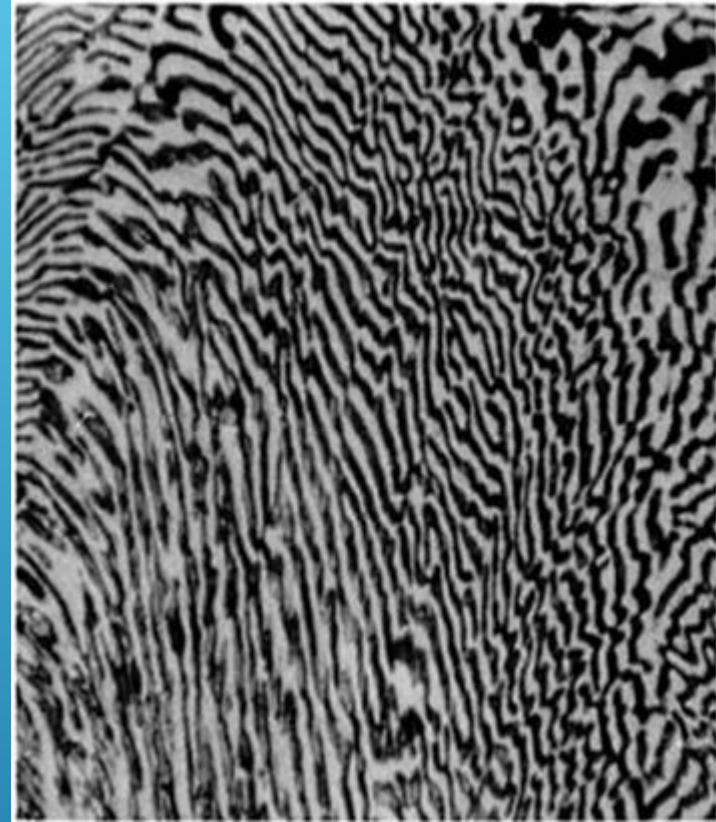
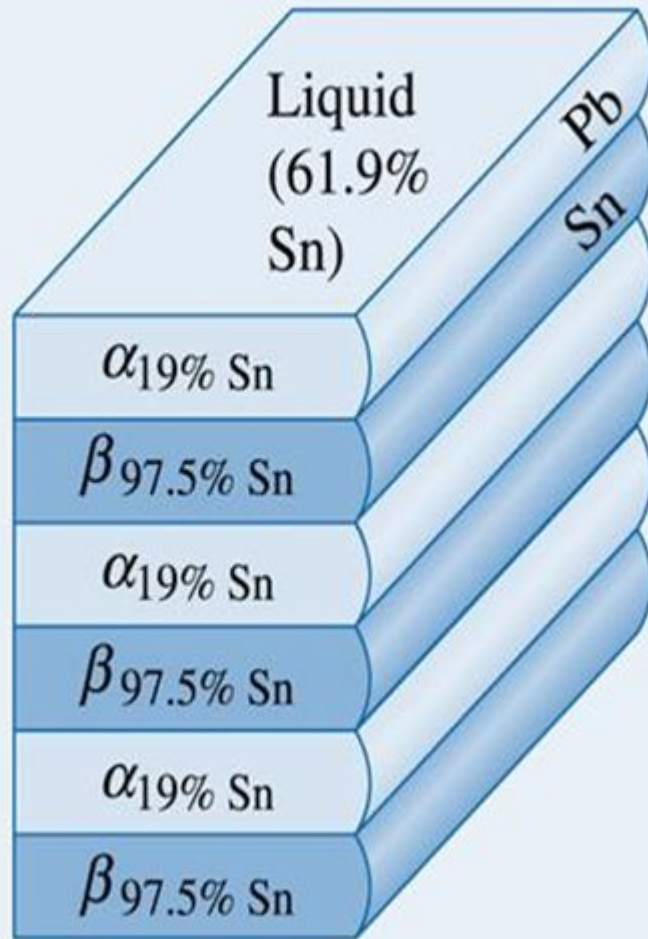
Solidificação, precipitação e microestrutura de uma liga Pb-10% Sn .



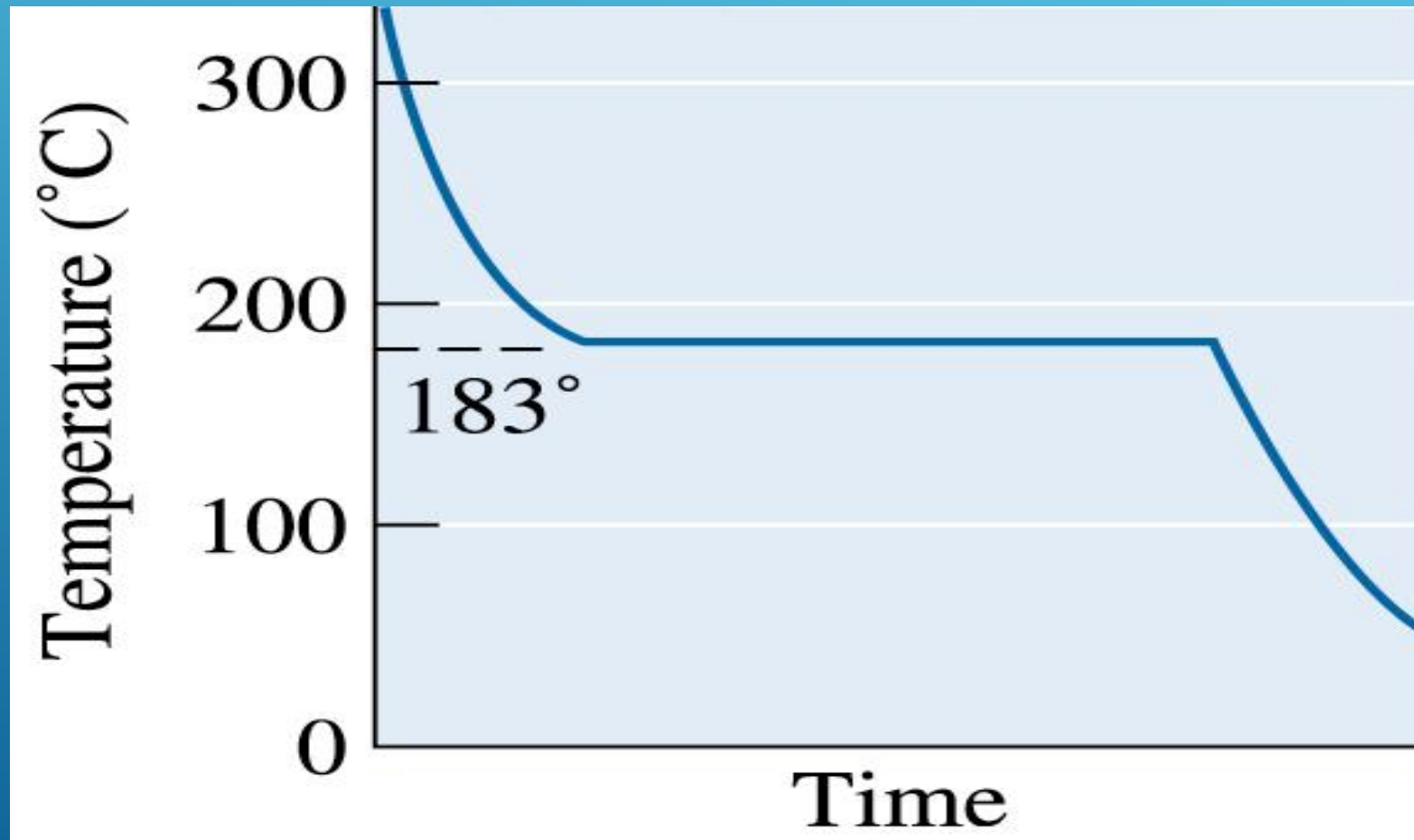
Alguns endurecimento por precipitação ocorre com os precipitados sólidos β .

Solidificação e microestrutura de uma liga eutética Pb-61.9% Sn

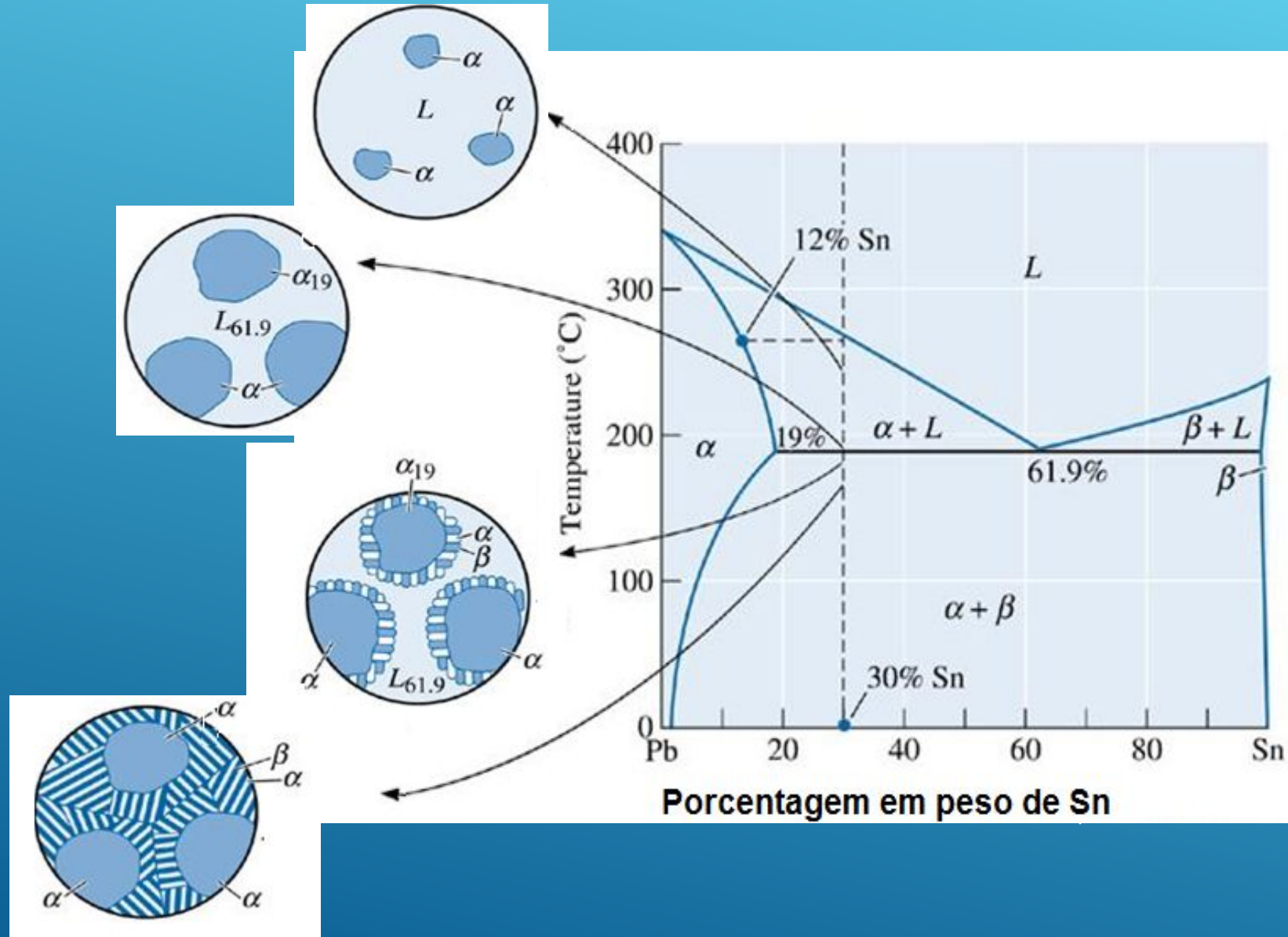




Regra de Gibbs

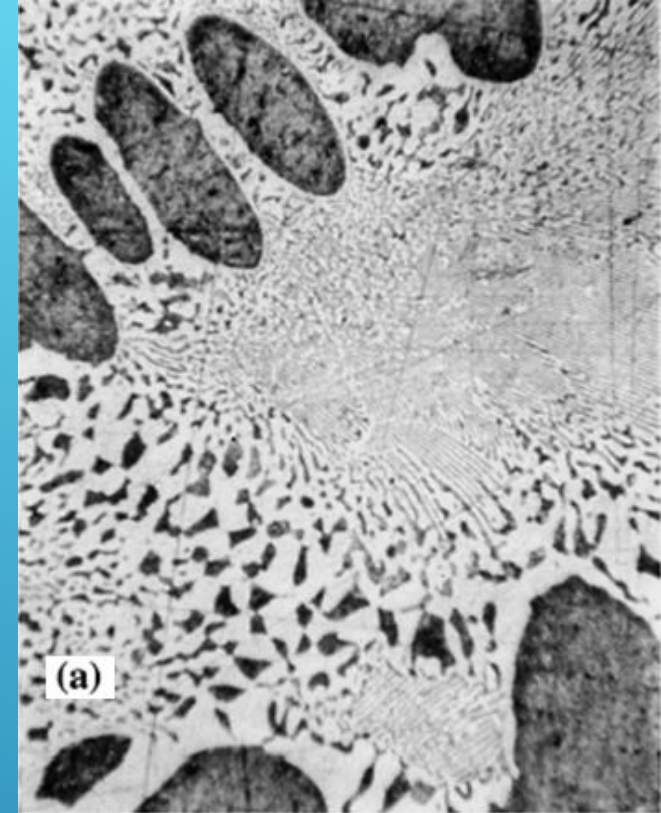
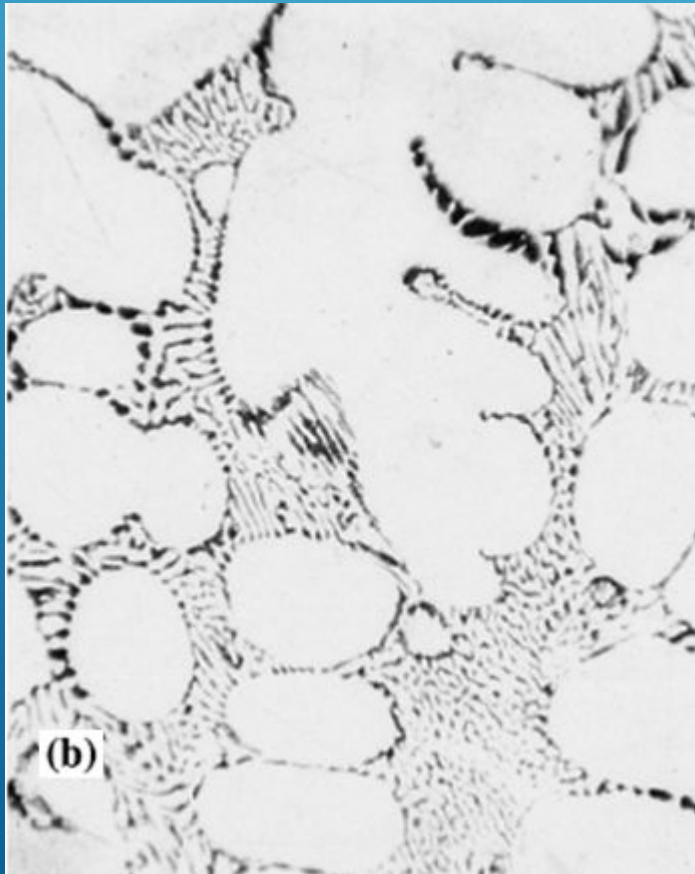


Solidificação e microestrutura de uma liga hipoeutética (Pb-30% Sn).

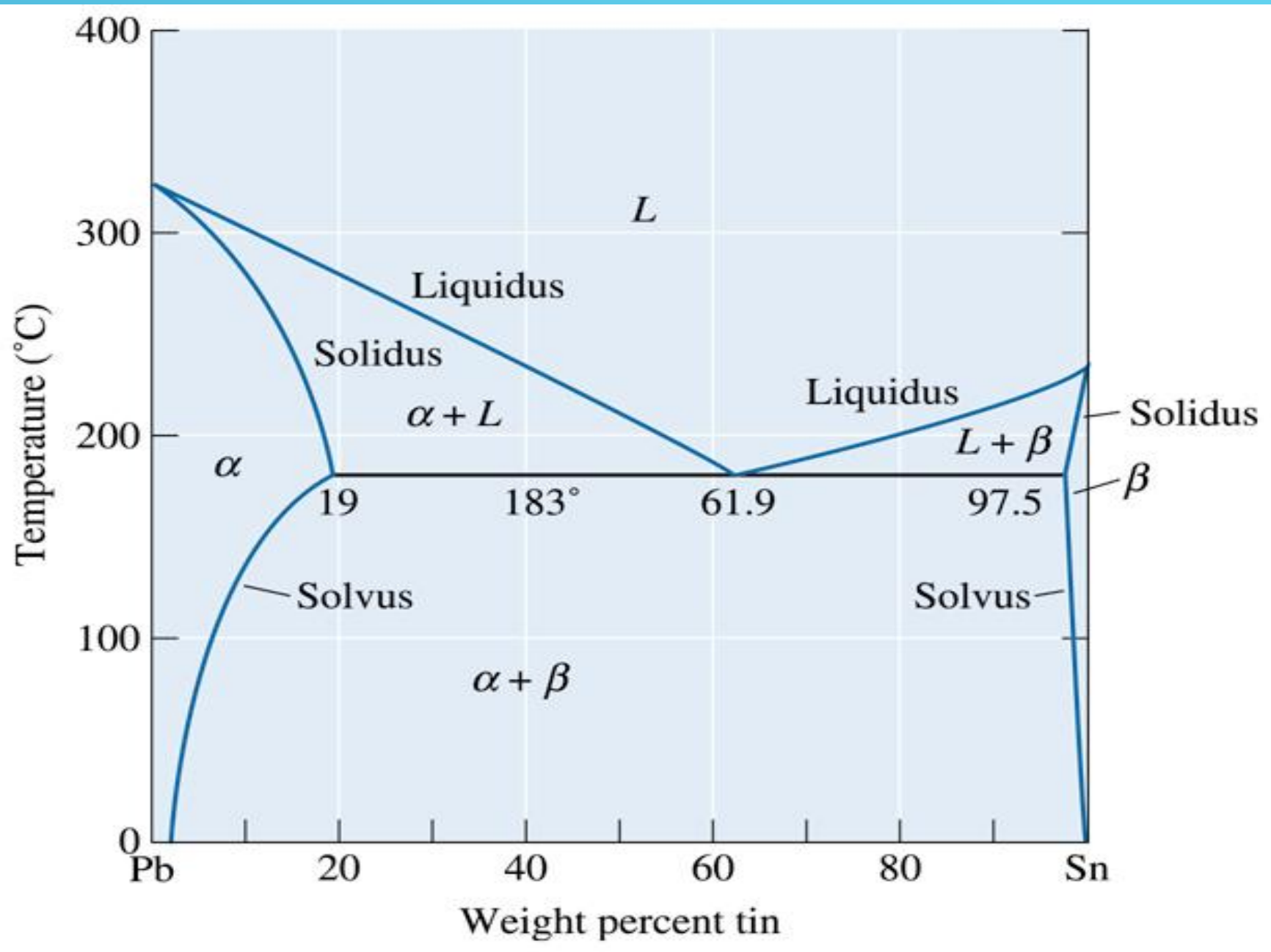


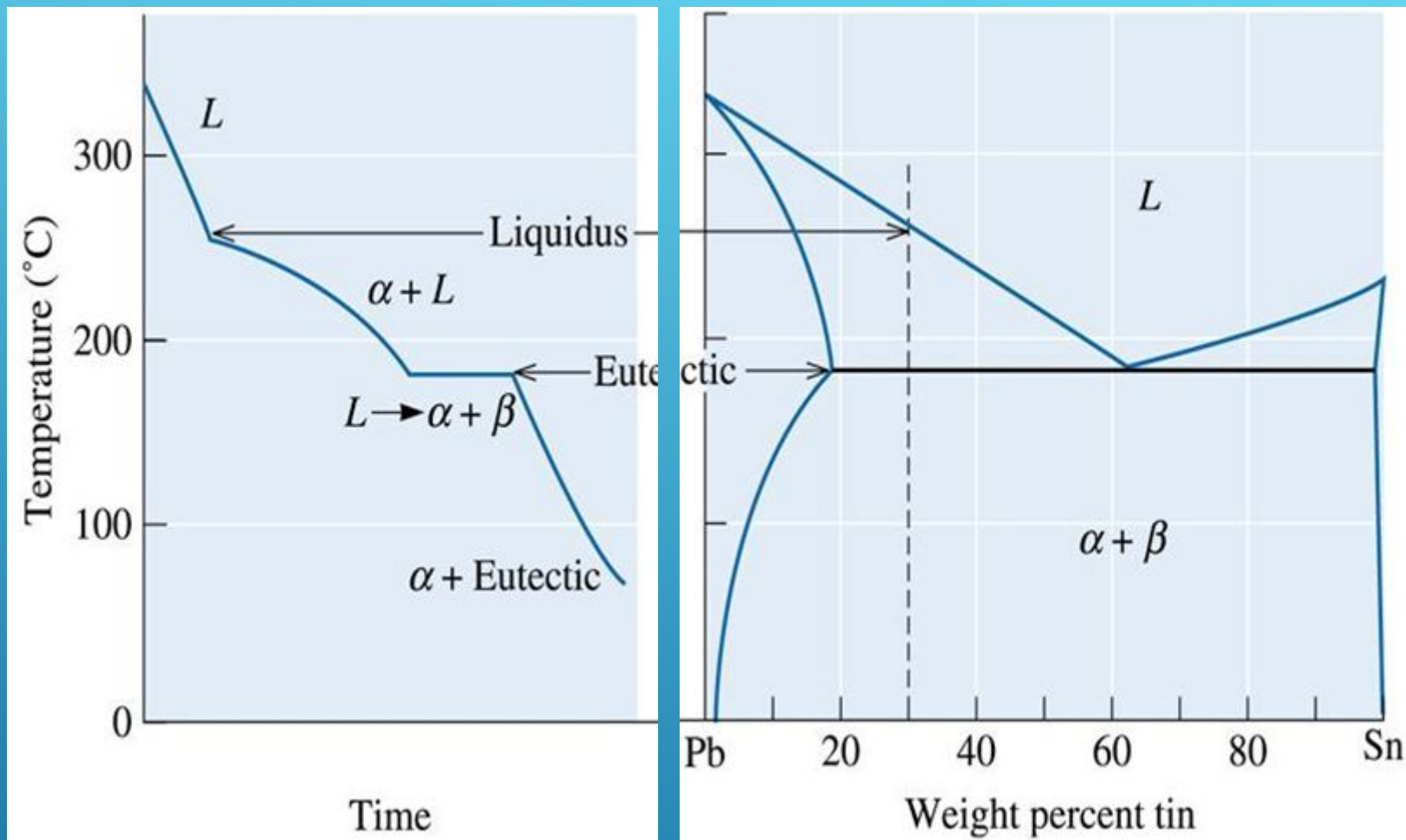
a) Liga hipoeutética de Pb/Sn.

(b) Liga hipereutética de Pb/Sn.



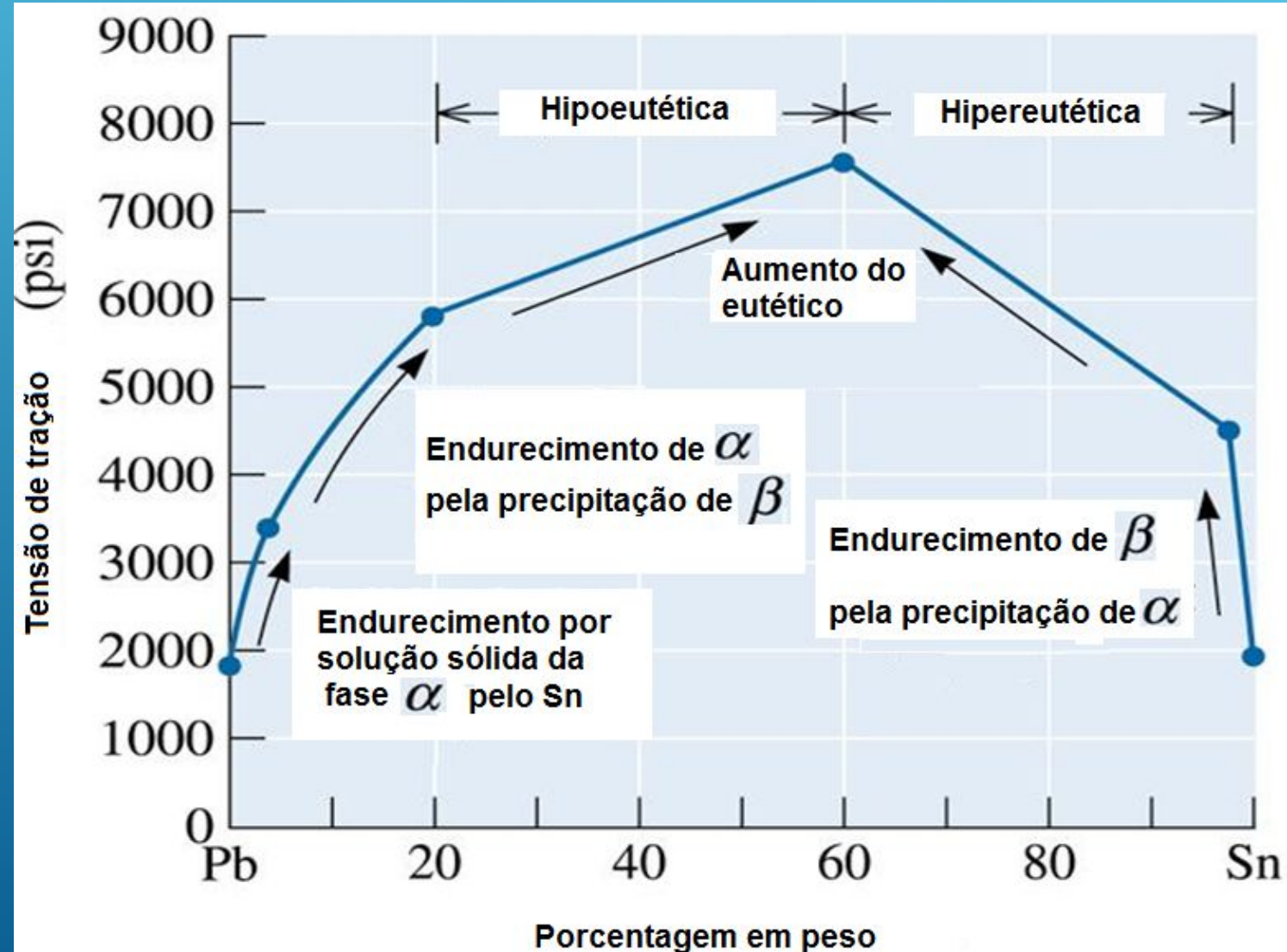
O constituinte escuro é rico em chumbo, fase α , o claro é rico em estanho, fase β , a estrutura “listrada” é o eutético .

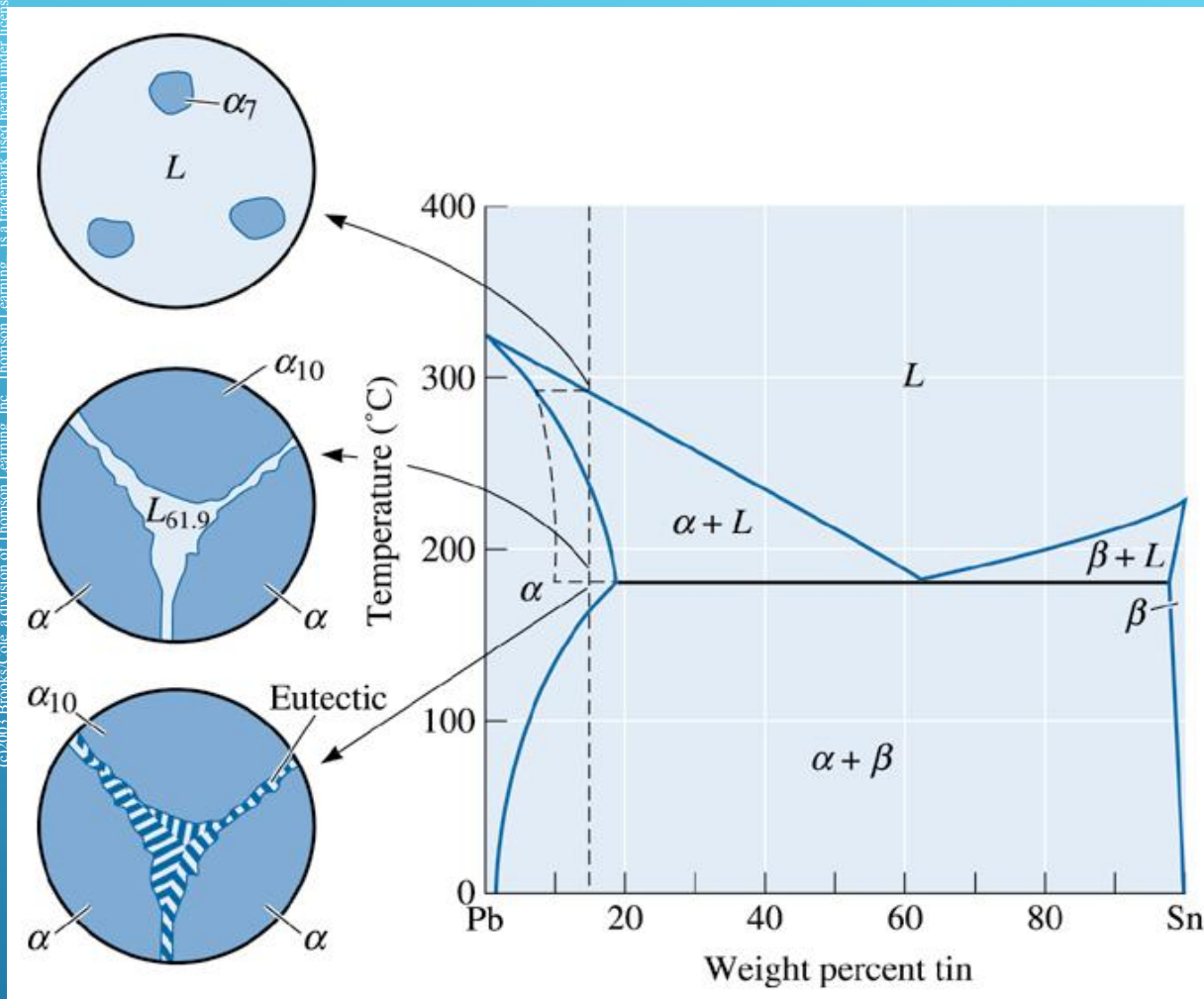




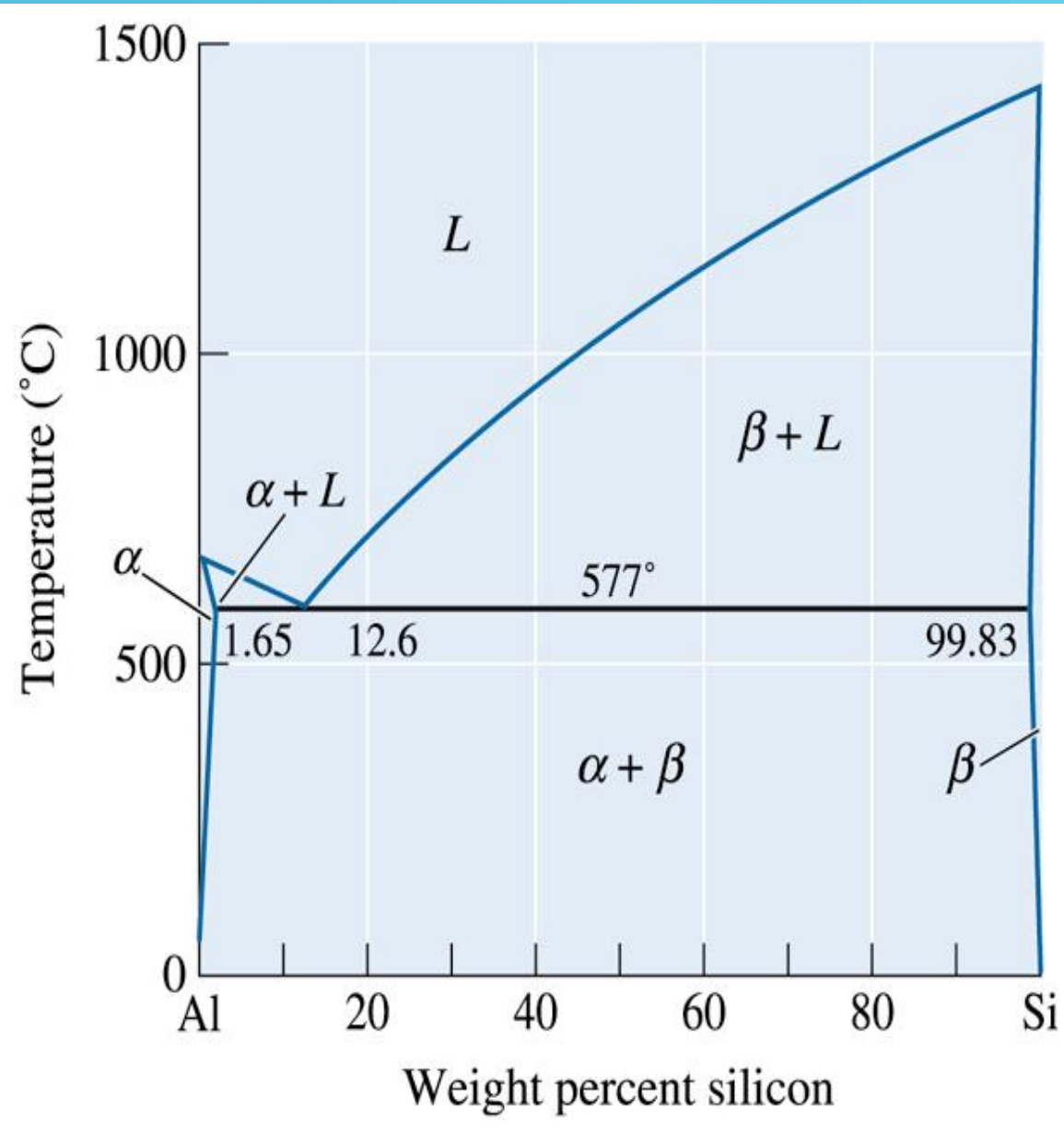
REGRA DE GIBBS

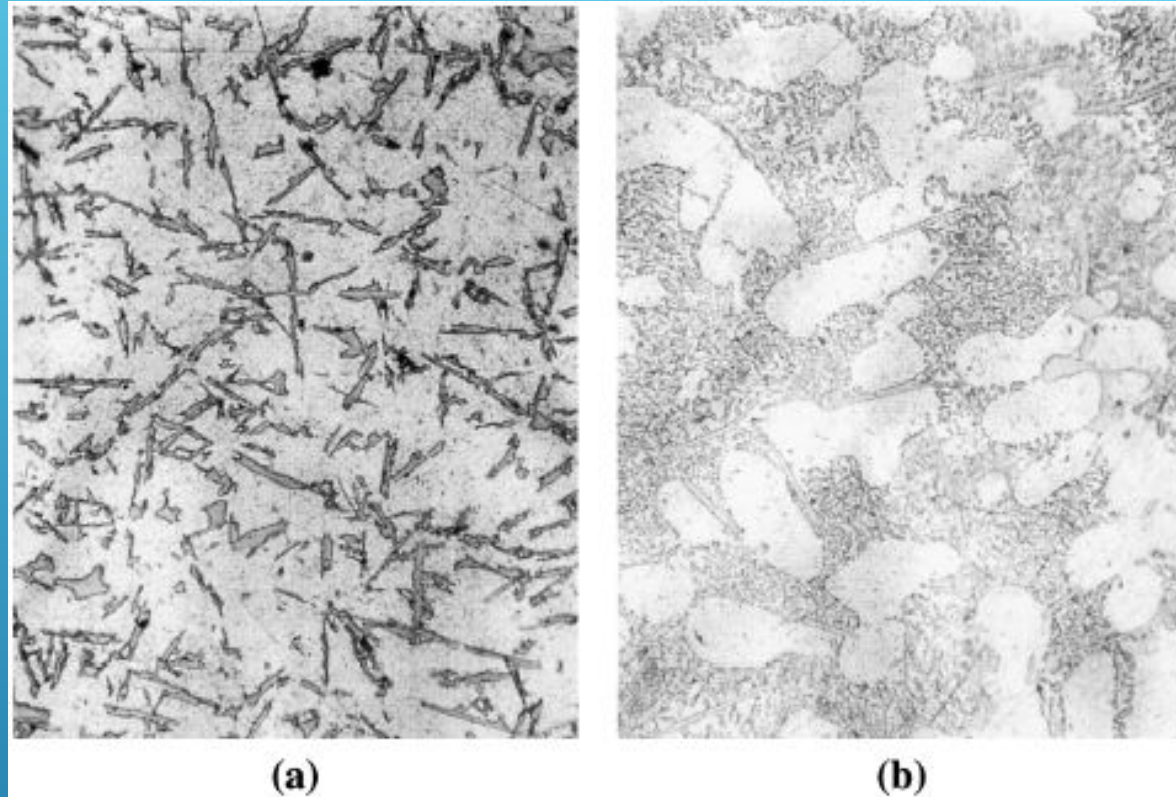
O efeito da composição e mecanismos de resistência na resistência à tração de ligas Pb/Sn.





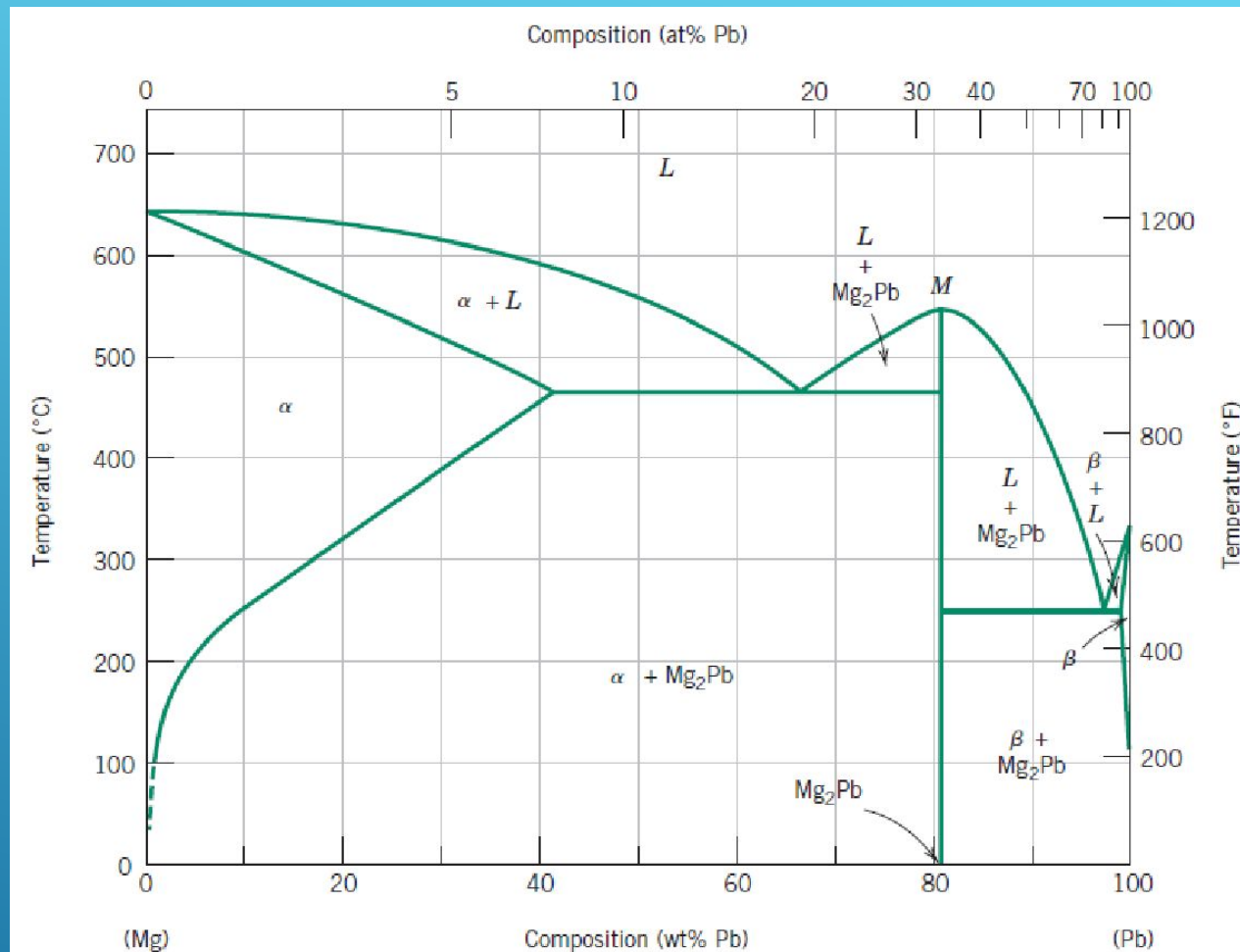
**Solidificação de não equilíbrio de uma liga Pb-15% Sn .
Um microconstituente de não equilíbrio eutético poderá
ser formado se a solidificação for muito rápida.**





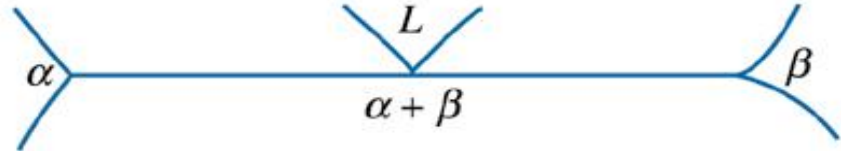
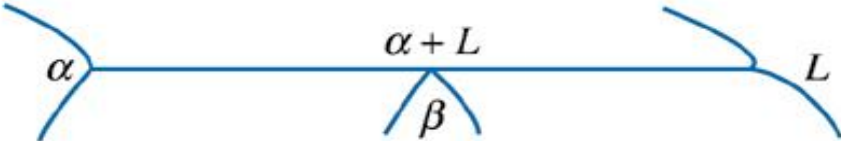
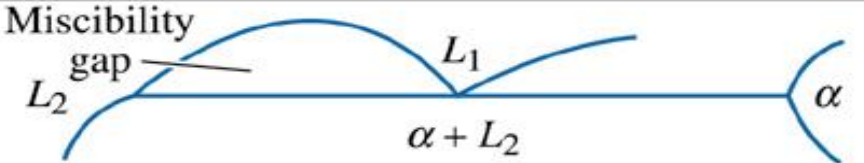
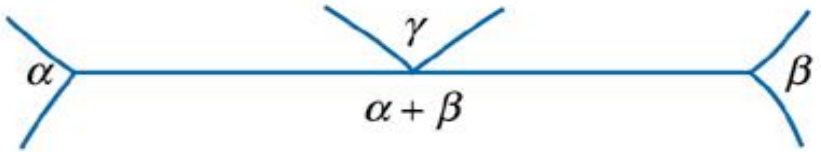
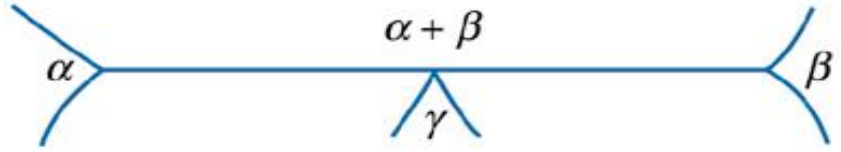
a) Eutético de Al Si

b) Eutético de Al Si modificada



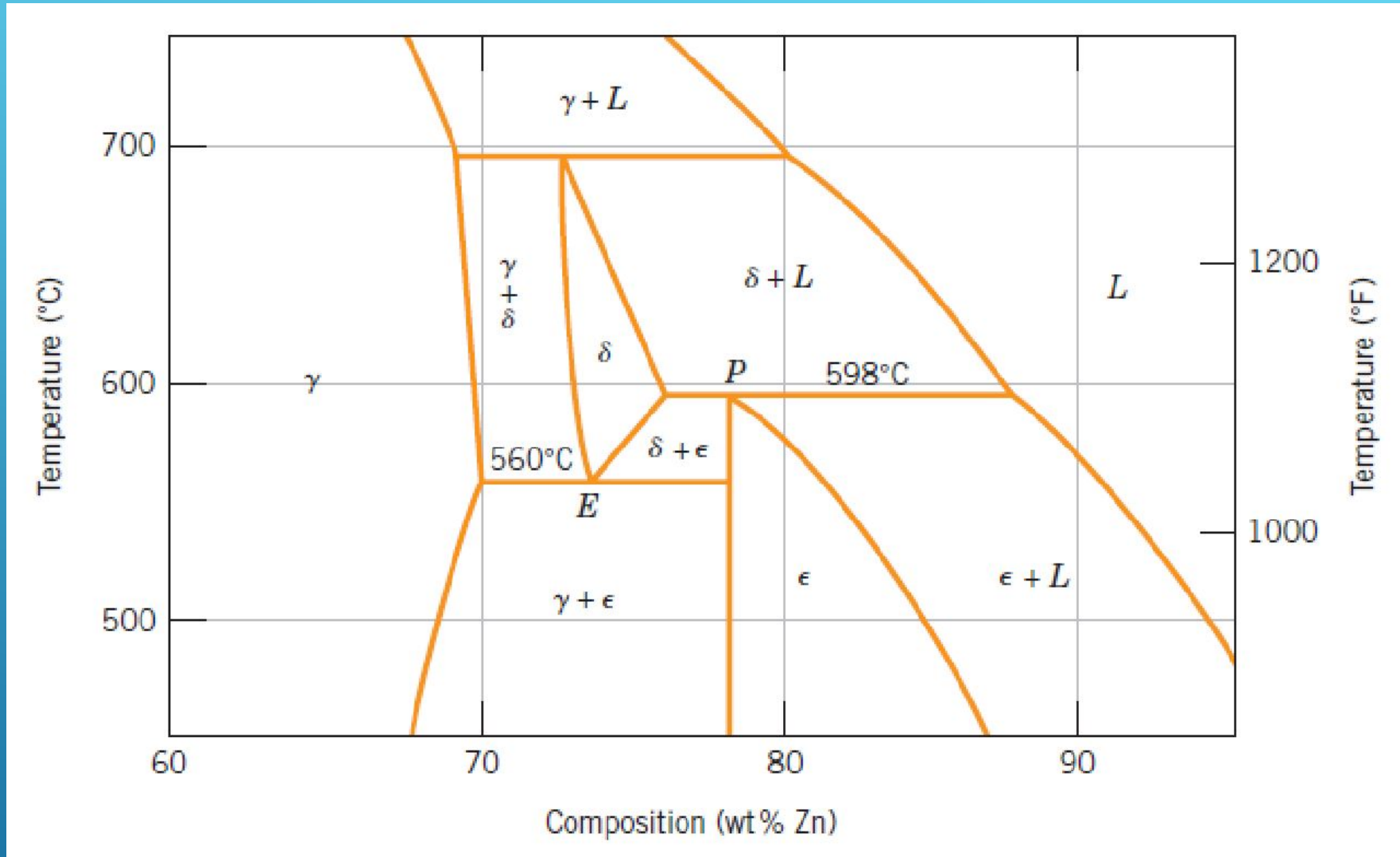
DIAGRAMAS COM COMPOSTOS
INTERMEDIÁRIOS

REAÇÕES INVARIANTES

Eutectic	$L \rightarrow \alpha + \beta$	
Peritectic	$\alpha + L \rightarrow \beta$	
Monotectic	$L_1 \rightarrow L_2 + \alpha$	
Eutectoid	$\gamma \rightarrow \alpha + \beta$	
Peritectoid	$\alpha + \beta \rightarrow \gamma$	

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Figure 10.6 The five most important three-phase reactions in binary phase diagrams.



IDENTIFIQUE AS REAÇÕES
INVARIANTES NOS PONTOS P E E