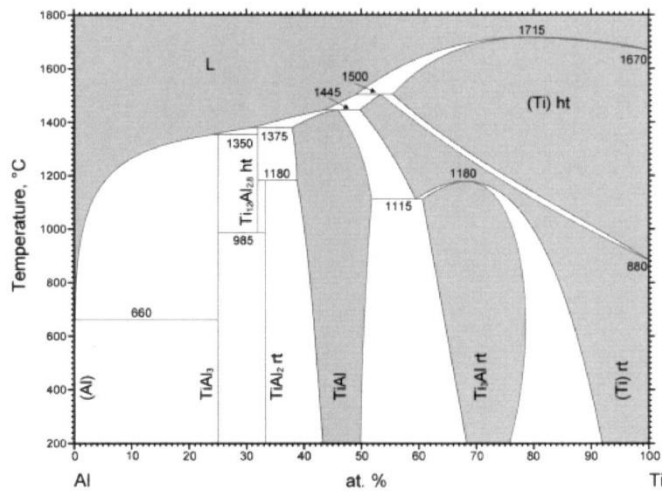


FIG. 1

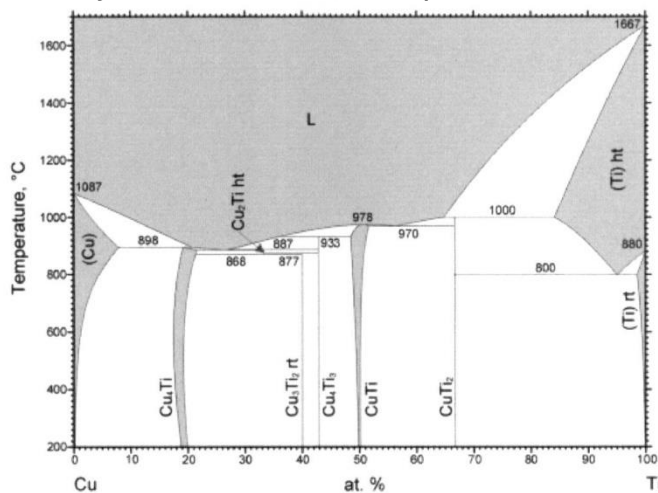
(a) Al-Ti binary diagram

Solid solution formation region being denoted by reference with parentheses



(b) Cu-Ti binary diagram

Solid solution formation region being denoted by reference with parentheses



(c) Ti-W binary diagram

Solid solution formation region being denoted by reference with parentheses

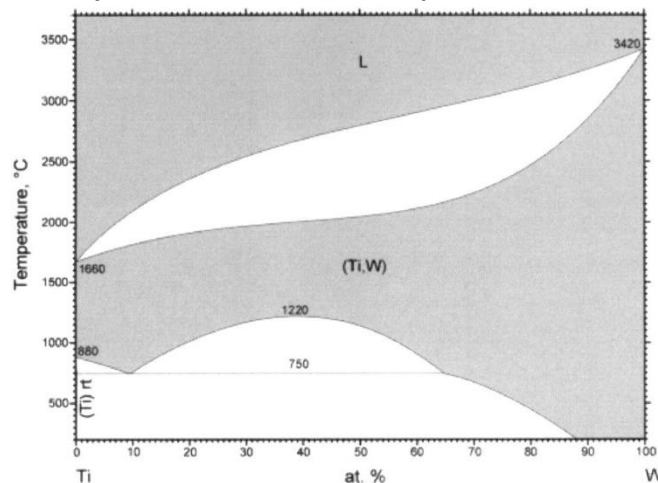
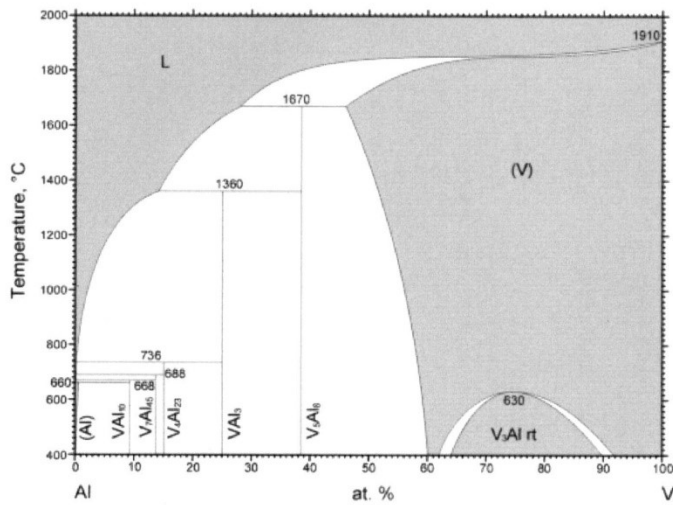


FIG. 2

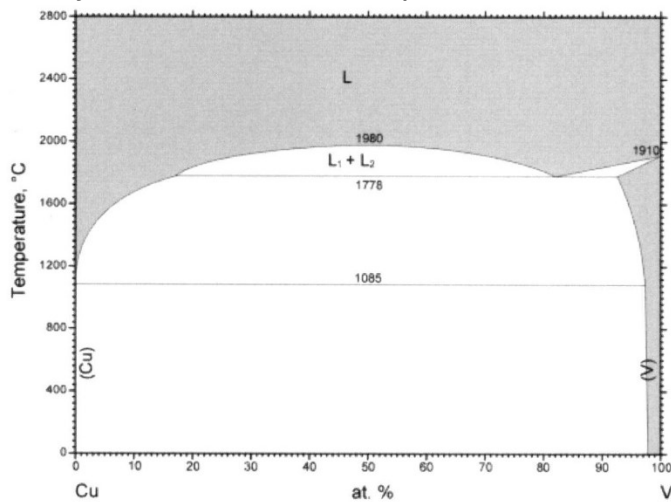
(a) Al-V binary diagram

Solid solution formation region being denoted by reference with parentheses



(b) Cu-V binary diagram

Solid solution formation region being denoted by reference with parentheses



(c) V-W binary diagram

Solid solution formation region being denoted by reference with parentheses

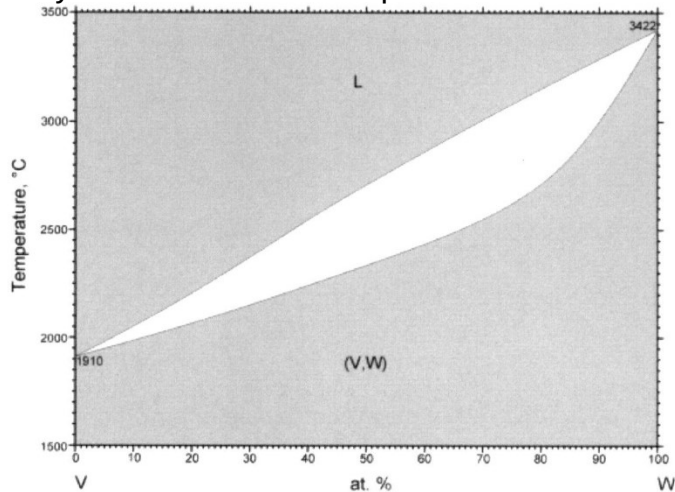
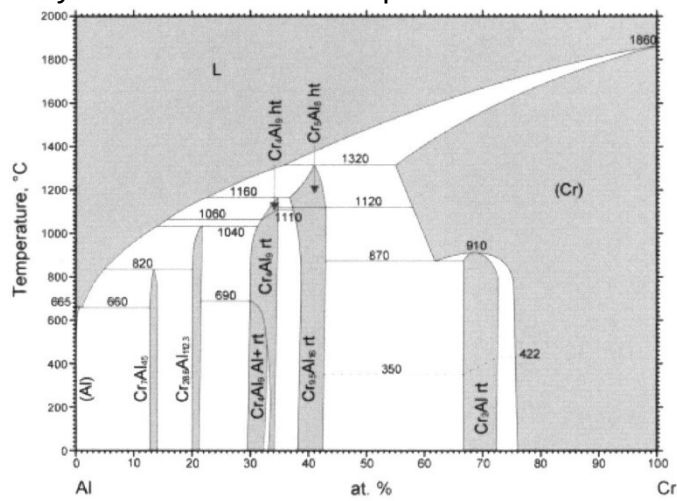
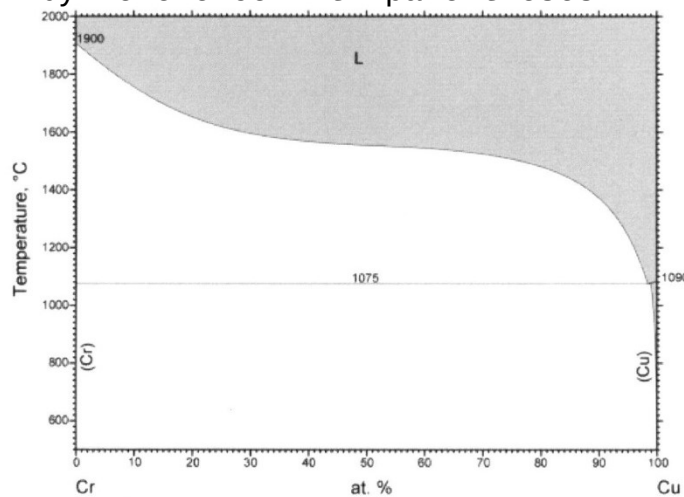


FIG. 3

- (a) Al-Cr binary diagram
Solid solution formation region being denoted by reference with parentheses



- (b) Cr-Cu binary diagram
Solid solution formation region being denoted by reference with parentheses



- (c) Cr-W binary diagram
Solid solution formation region being denoted by reference with parentheses

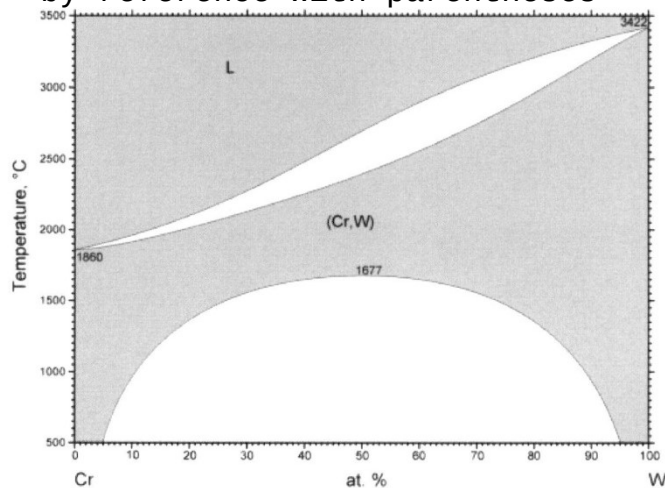
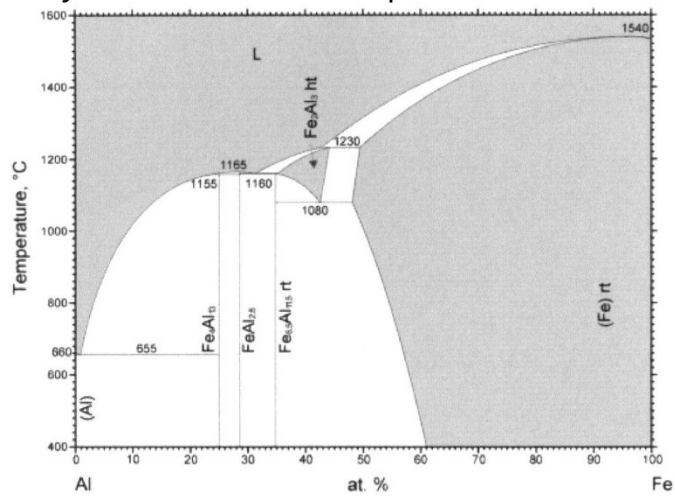


FIG. 4

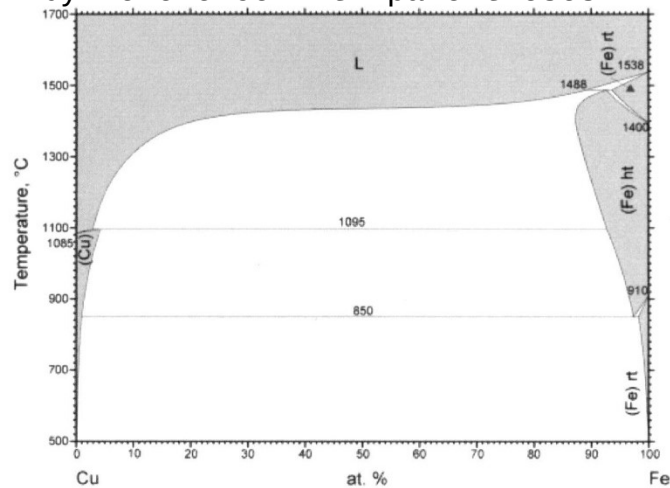
(a) Al-Fe binary diagram

Solid solution formation region being denoted by reference with parentheses



(b) Cu-Fe binary diagram

Solid solution formation region being denoted by reference with parentheses



(c) Fe-W binary diagram

Solid solution formation region being denoted by reference with parentheses

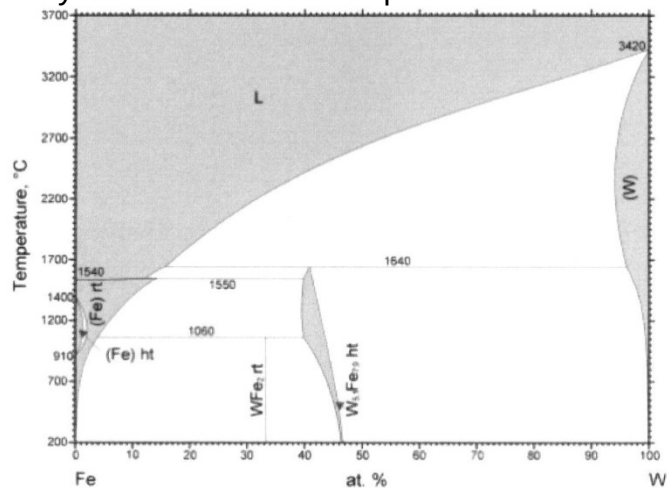
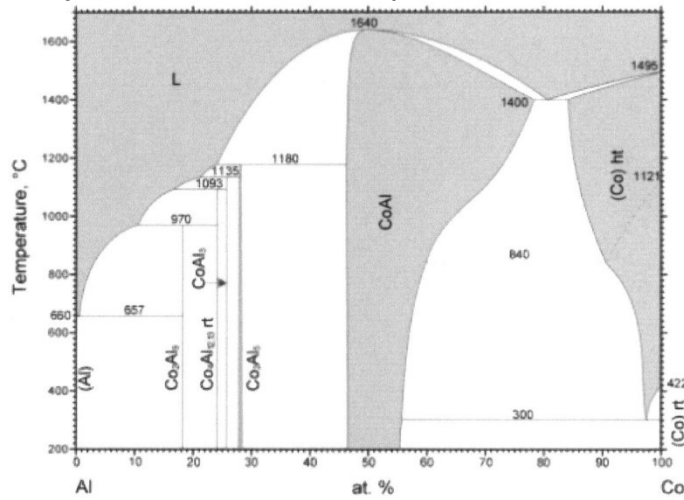


FIG. 5

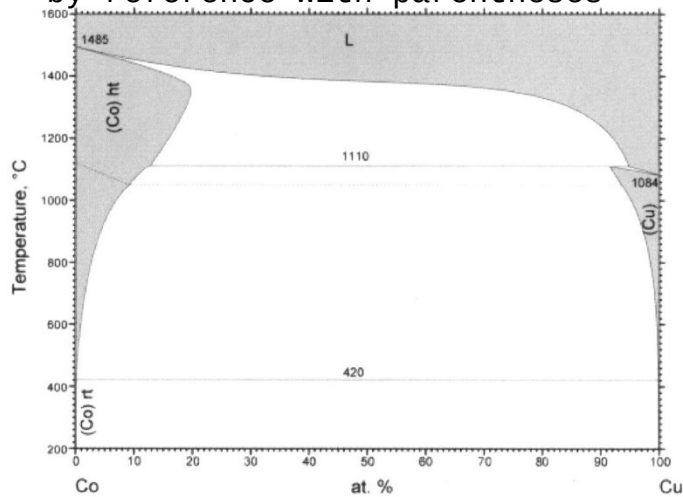
(a) Al-Co binary diagram

Solid solution formation region being denoted by reference with parentheses



(b) Co-Cu binary diagram

Solid solution formation region being denoted by reference with parentheses



(c) Co-W binary diagram

Solid solution formation region being denoted by reference with parentheses

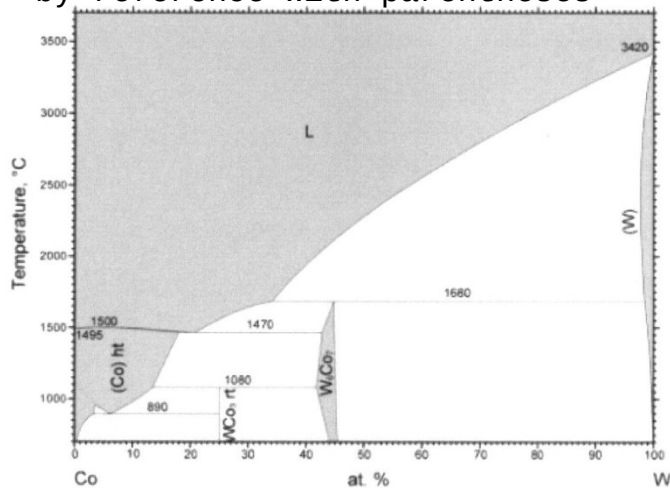
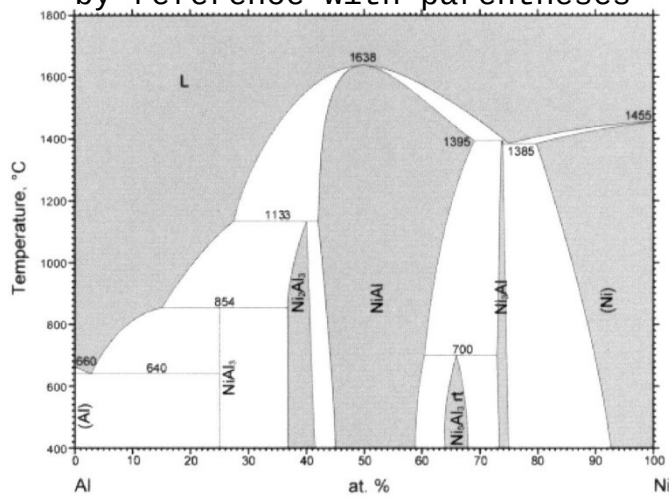


FIG. 6

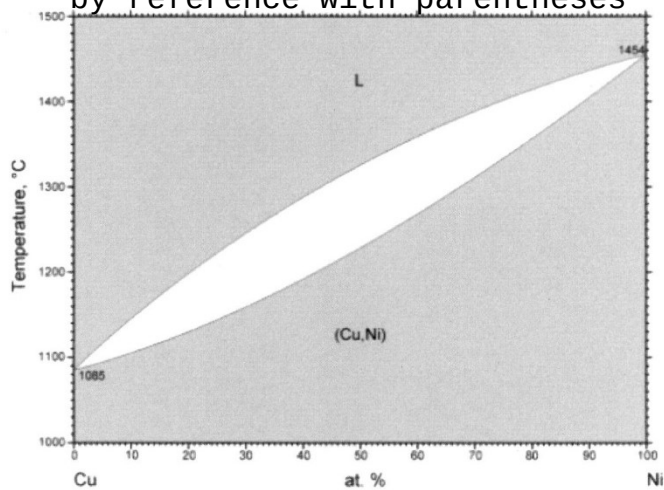
(a) Al-Ni binary diagram

Solid solution formation region being denoted by reference with parentheses



(b) Cu-Ni binary diagram

Solid solution formation region being denoted by reference with parentheses



(c) Ni-W binary diagram

Solid solution formation region being denoted by reference with parentheses

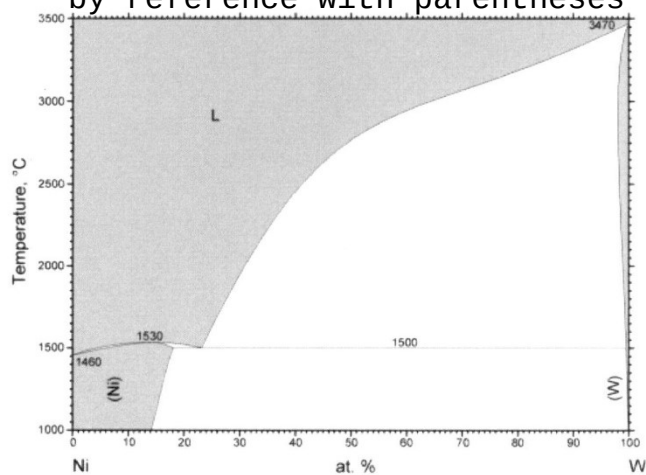
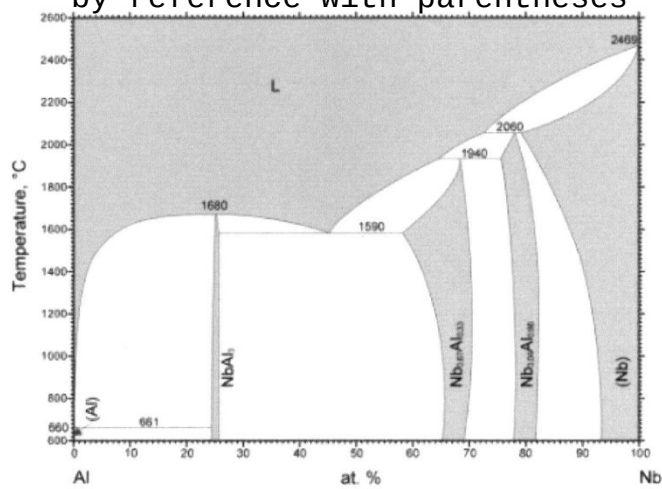


FIG. 7

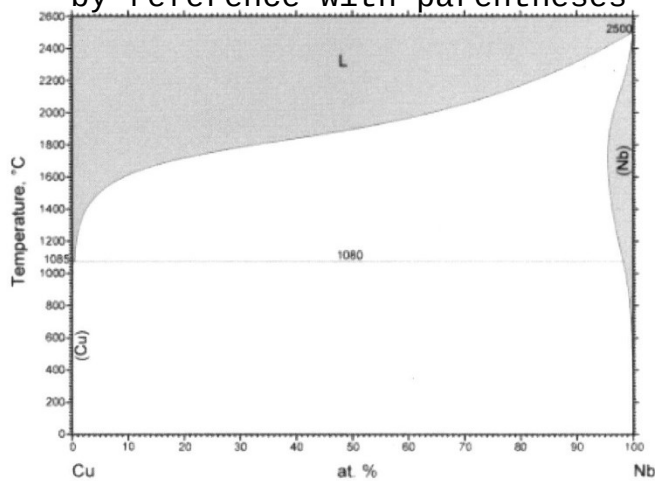
(a) Al-Nb binary diagram

Solid solution formation region being denoted by reference with parentheses



(b) Cu-Nb binary diagram

Solid solution formation region being denoted by reference with parentheses



(c) Nb-W binary diagram

Solid solution formation region being denoted by reference with parentheses

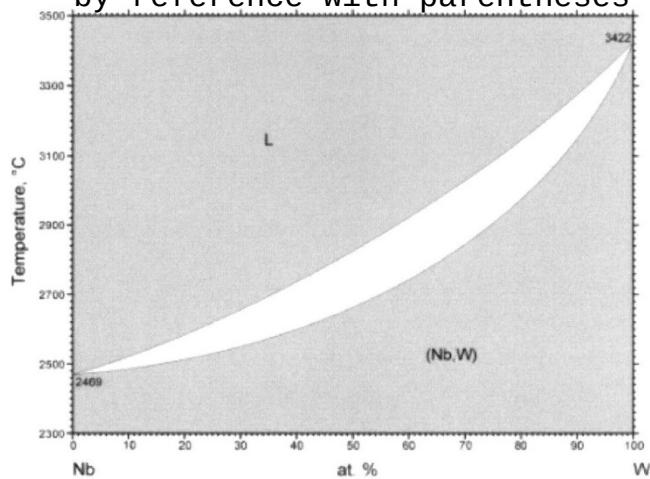
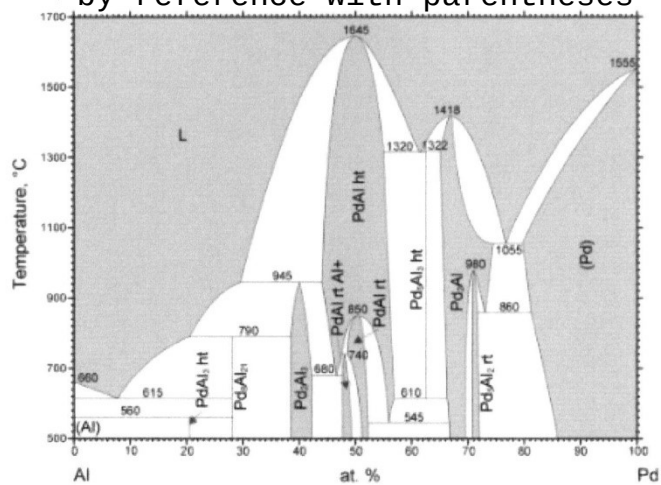


FIG. 8

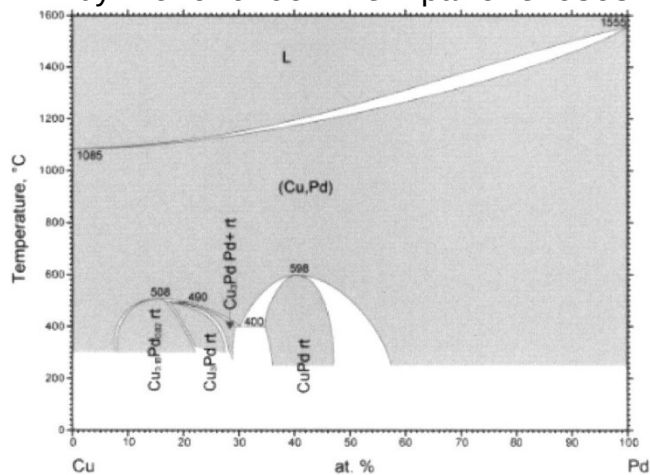
(a) Al-Pd binary diagram

Solid solution formation region being denoted by reference with parentheses



(b) Cu-Pd binary diagram

Solid solution formation region being denoted by reference with parentheses



(c) Pd-W binary diagram

Solid solution formation region being denoted by reference with parentheses

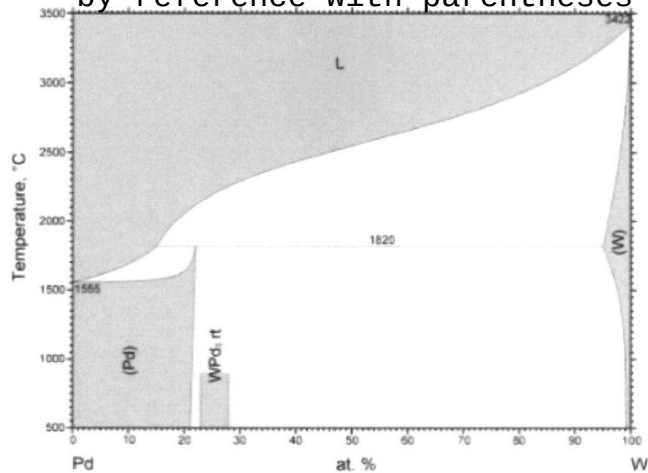
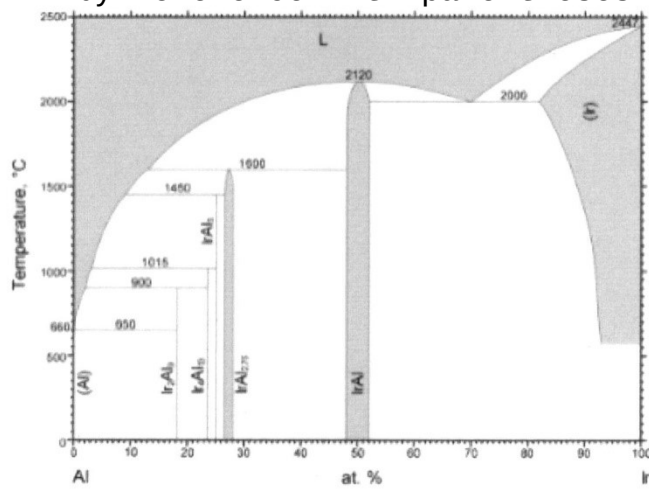
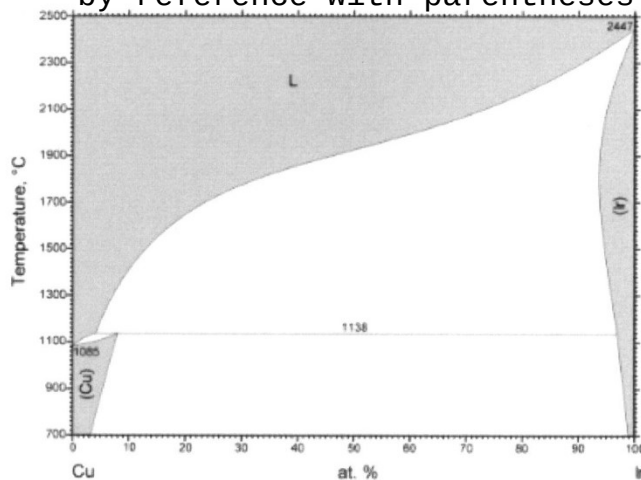


FIG. 9

- (a) Al-Ir binary diagram
Solid solution formation region being denoted by reference with parentheses



- (b) Cu-Ir binary diagram
Solid solution formation region being denoted by reference with parentheses



- (c) Ir-W binary diagram
Solid solution formation region being denoted by reference with parentheses

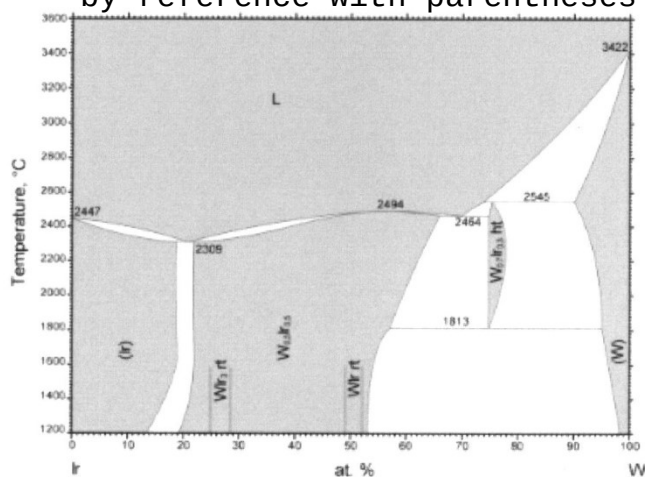
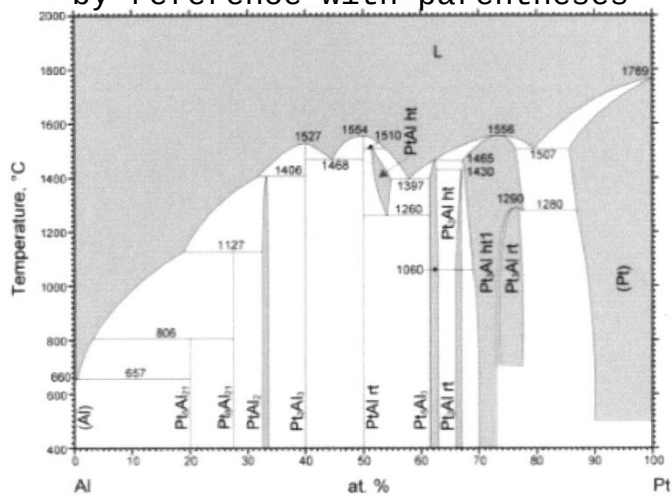


FIG. 10

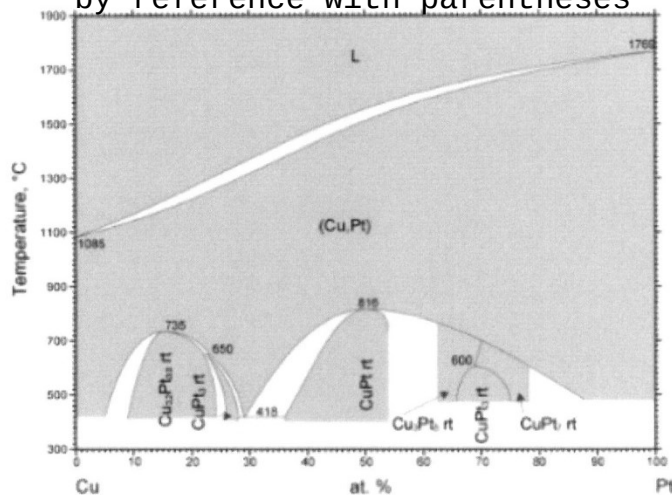
(a) Al-Pt binary diagram

Solid solution formation region being denoted by reference with parentheses



(b) Cu-Pt binary diagram

Solid solution formation region being denoted by reference with parentheses



(c) Pt-W binary diagram

Solid solution formation region being denoted by reference with parentheses

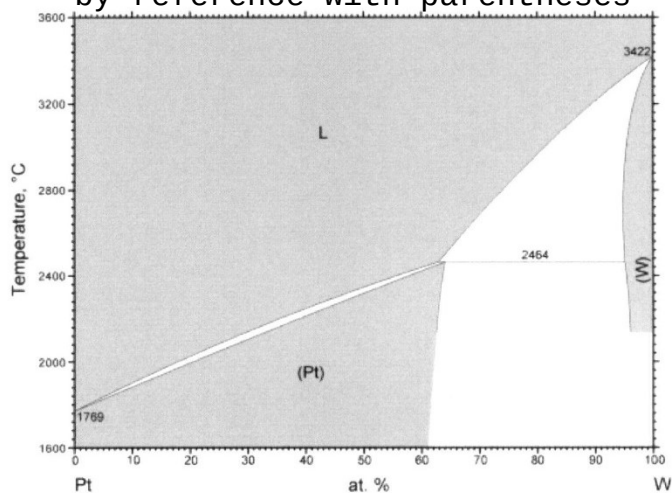


FIG. 11

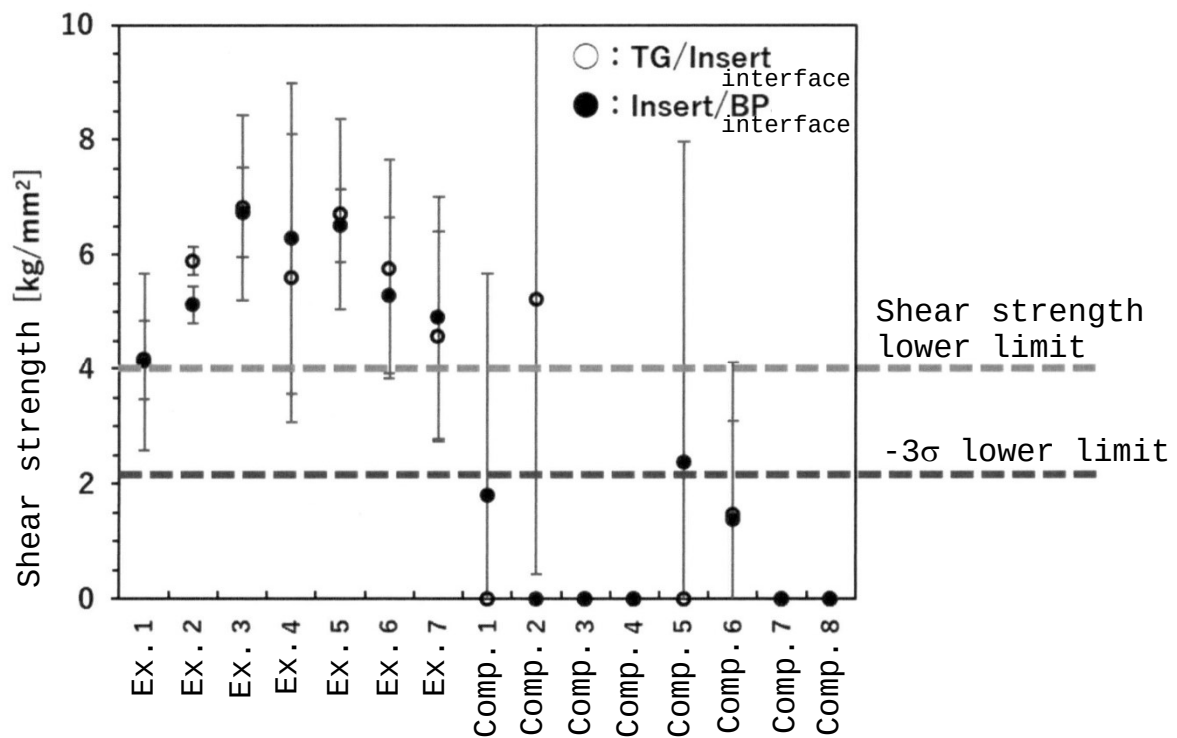


FIG. 12

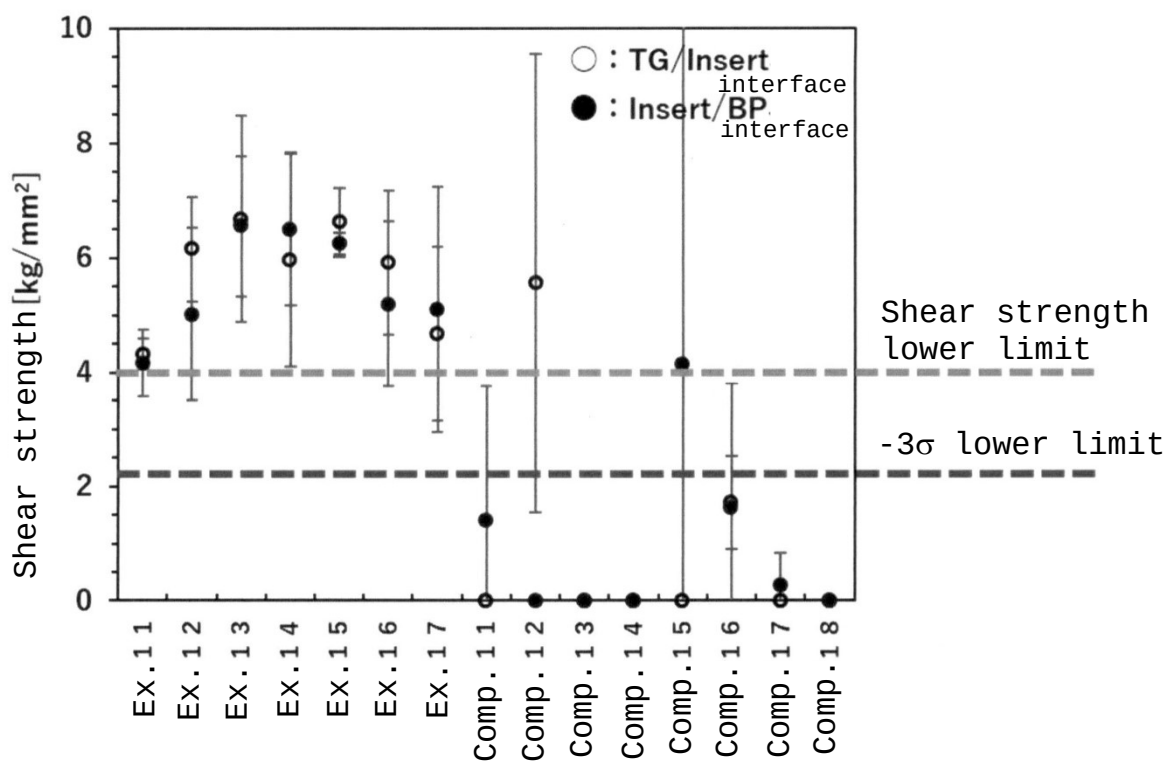


FIG. 13

Ex. 3

Cross-sectional SEM image of interface between insert material and backing plate

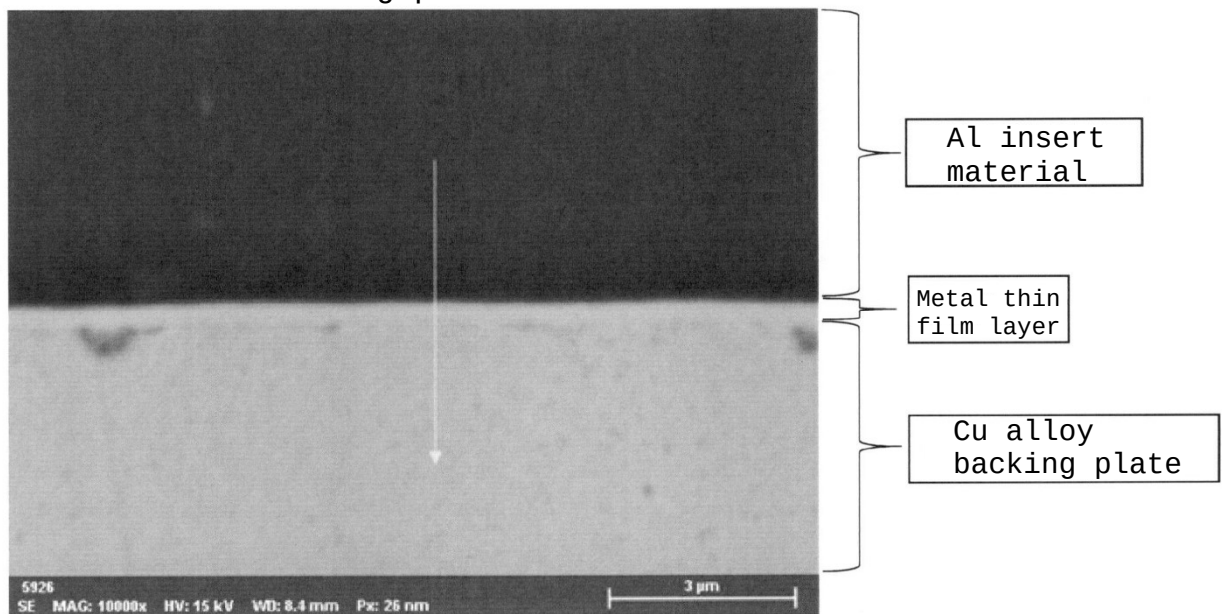


FIG. 14

Comp. 2

Cross-sectional SEM image of interface between insert material and backing plate

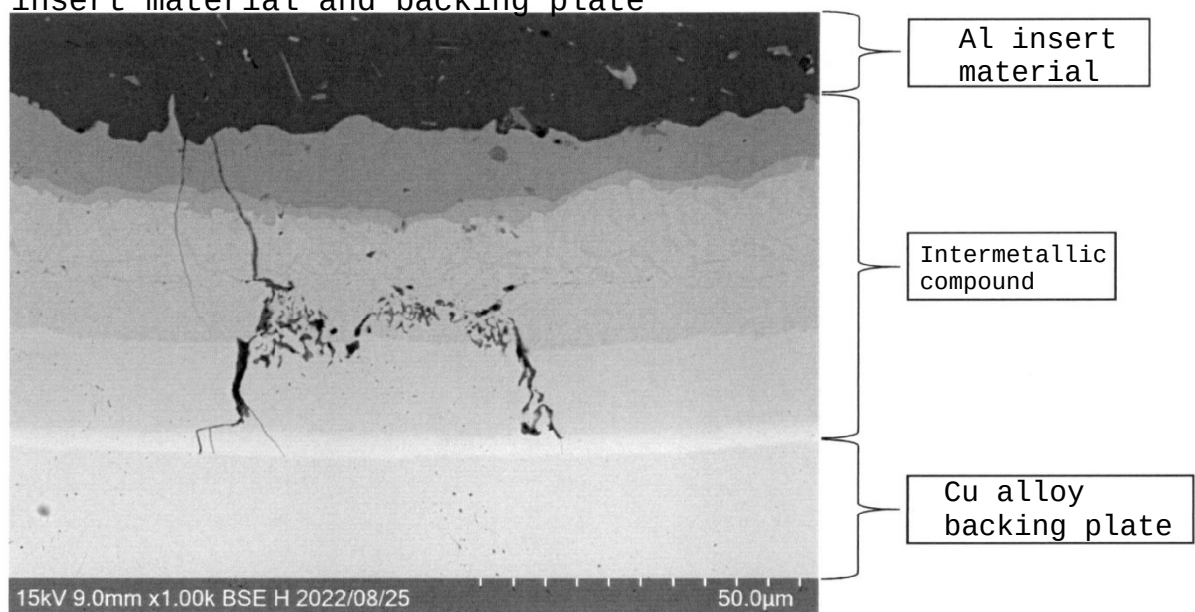


FIG. 15

Comp. 5

Cross-sectional SEM image of interface between insert material and backing plate

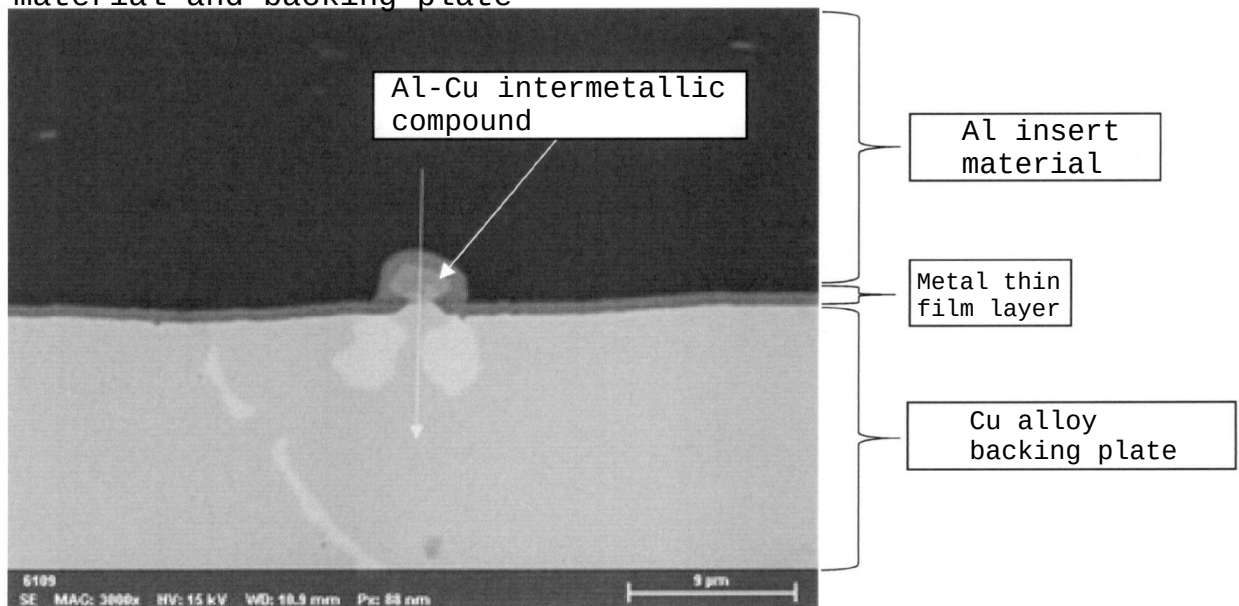


FIG. 16

Comp. 7

Cross-sectional SEM image of interface between target and insert material

