

AP Chemistry Daily Videos

2.4 Structure of Metals and Alloys


Video #1


1. What 3 properties do metals have because of their "sea of electrons"?
2. Ionic compounds that are soluble in water and metals both are good conductors of electricity. Explain why.
3. What are alloys and their two types? Draw a picture and words to describe the types.

4. Pause the video at 2:32 and attempt the problem, then evaluate how you did and identify any errors.

Cupro-nickel is an alloy used to make coins. It is made of copper and nickel. The atomic radii of both elements are shown below. Which model best represents cupro-nickel? Justify your answer.

Element	Atomic radius (pm)
Copper	128
Nickel	163

a) 

b) 

5. Pause the video at 3:13 and attempt the problem, then evaluate how you did and identify any errors.

A particular interstitial alloy is made of two elements X and Y, where Y is the base metal. The alloy is made of 20% X and 80% Y. Draw a diagram of the solid alloy that contains 10 total atoms in a representative proportion of atom types.

Element	Particle
X	●
Y	○