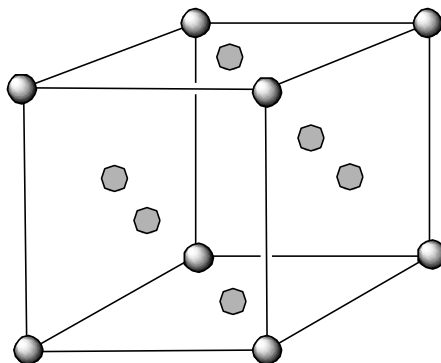


- The diagram below shows the structure of an alloy of copper and gold with a gold atom at each of the corners and a copper atom in the centre of each of the faces. The length of the side of the cubic unit cell is 0.36 nm.



● = Au

● = Cu

What is the chemical formula of the alloy?

Answer:

Pure gold is 24 carat, whilst gold alloys consisting of 75 % gold by weight are termed 18 carat gold. What carat gold is this alloy?

Answer:

What is the volume (in cm^3) of the unit cell?

Answer:

What is the density (in g cm^{-3}) of the alloy?

Answer: