

Cycle 5 Honors Chemistry I

Honors Topic

Thinking Questions:

a) There are rare compounds of gold called 'aurides', where gold forms the Au^{-1} ion. Which element would be most likely to form an 'auride' with gold, and why?

b) Would the Au^{-1} ion have a larger or smaller radius than a neutral atom of Au, and why? What about Au^{+5} ion?

c) There is one known compound of Au^{+5} . Which element forms the anion? Why?

d) Please arrange the following in order of increasing radii: Au^{-1} , Hg, Hg^{+2} .