

1. The correct sequence of increasing covalent character is represented by:



2. In the case of alkali metal halides, the covalent character decreases in the order:



3. The resonance structure of a molecule should not have:

A. Identical arrangement of atoms

B. Nearly the same energy

C. The same number of paired electrons

D. Identical bonding

4. $AlCl_3$ is covalent while AlF_3 is ionic. This can be justified on the basis of:

- A. Valence-bond theory
- B. Fajan's rule
- C. Molecular-orbital theory
- D. Hydration energy

5. Which of the following compounds is colored?

- A. HgI_2
- B. $AgCl$
- C. $NaCl$
- D. $HgCl_2$