

Properties of Covalent Compounds Homework

- 1) Explain why NaF is an ionic compound while N₃F is a covalent compound.
- 2) Show what happens (using dot structures) when an atom of sulfur combines with two atoms of hydrogen to form one covalent molecule of H₂S.
- 3) Explain which is likely to have a higher bond dissociation energy (energy needed to break apart the atoms): H₂ or O₂. Hint: You will probably need to draw the dot structures of each to answer this question.
- 4) How is a group of covalent molecules similar to the structure of a bean bag chair?
- 5) The bond dissociation energy of covalent compounds is similar to the lattice energy of ionic crystals. If both energies are the same, why do ionic compounds have such high melting points compared to covalent compounds?