

Lesson: Introducing Covalent Bonds 2: Relating Bond Length to Bond Strength

First, read the statements below.

Second, watch the explore video [Alef](#)

Third, decide whether each of the statements below is True or False

True (T) or False (F)?

1. The distance between the two atomic nuclei **influences** the strength of a covalent bond. _____
2. The **bond dissociation energy** is the optimal distance between the nuclei of two bonded atoms where the attractive forces are at a maximum. _____
3. The bond length between two bonding atoms depends upon the: sizes of the atoms and number of shared electron pairs. _____
4. The **bond length** of a covalent bond is the energy required to break a particular covalent bond. _____
5. Energy is released from the **formation of bonds** in the products. _____
6. An **exothermic reaction** is a chemical reaction where more energy is released by formation of bonds in the products than is required to break bonds in the reactants. _____