

The Covalent Bonding: Single Covalent Bonds

First Read the statement below

Second Study figure 2 from textbook or page 4 to explore how a single covalent bond between two nonmetal atoms forms.

Third Decide whether the statements below True or False

True (T) or False (F)?

1. A fluorine atom (F) has 8 valence electrons in its outer principal energy level, so it has a stable octet electron configuration. ()
2. Negatively charged electrons of the two nonmetal atoms repel each other, when approach each other. ()
3. Positively charged protons of the two nonmetal atoms attract each other when approach each other. ()
4. At an optimal distance of two nonmetal atoms, positively charged protons of one atom attract the negatively charged electrons of the other atom ()
5. When the two nonmetal atoms are at an optimal distance, the attractive force between the oppositely charged particles is at a maximum. ()
6. The diatomic fluorine molecule (F₂) is more stable than the single fluorine atoms (F) because of the shared valence electrons. ()