

# Intramolecular and Intermolecular Forces

Chemistry · Practice Test · 15 Questions

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**1. What is another common name for an intramolecular force?**

- A) Hydrogen bond
- B) Chemical bond
- C) London dispersion force
- D) Van der Waals force

**2. What type of bond involves the transfer of electrons from a metal to a non-metal?**

- A) Covalent bond
- B) Metallic bond
- C) Ionic bond
- D) Hydrogen bond

**3. Which bond is characterized by the sharing of a pair of electrons between two non-metals?**

- A) Covalent
- B) Ionic
- C) Metallic
- D) Electrostatic

**4. What term describes a molecule with an asymmetrical charge distribution?**

- A) Non-polar
- B) Polar
- C) Neutral
- D) Metallic

**5. Which of the following is an example of a non-polar molecule shape?**

- A) Bent
- B) Linear/Symmetrical
- C) Asymmetrical
- D) Dipole

**6. What force explains why ionic compounds like NaCl dissolve in water?**

- A) Covalent bonding
- B) Ion-dipole forces
- C) Metallic bonding
- D) Induced-dipole forces

**7. What determines the strength of an ion-dipole force?**

- A) The color of the ion
- B) The size of the charge on the ion
- C) The viscosity of the liquid
- D) The speed of the atoms

**8. What happens when an ion approaches a non-polar molecule?**

- A) It becomes a metal
- B) It creates an ion-induced dipole
- C) It turns into a gas
- D) It forms a covalent bond

**9. Are ion-induced dipole forces permanent?**

- A) Yes, always
- B) No, they are temporary
- C) Only in solids
- D) Only in metals

**10. What type of attraction occurs between two polar molecules?**

- A) Dipole-dipole force
- B) Metallic force
- C) Ionic-covalent force
- D) Non-polar attraction

**11. In a water molecule, which atom attracts the sodium cation?**

- A) Hydrogen
- B) Oxygen
- C) Chlorine
- D) Carbon

**12. Which of the following describes the prefix 'intra-'?**

- A) Between
- B) Outside
- C) Within
- D) Across

**13. What is the result of the sharing or transfer of electrons between atoms?**

- A) Electrostatic force of attraction
- B) Nuclear decay
- C) Molecular expansion
- D) Ionization of air

**14. What shape is commonly associated with polar molecules?**

- A) Bent
- B) Perfectly spherical
- C) Square planar
- D) Linear symmetrical

**15. In an ion-dipole interaction, what does the chloride anion attract?**

- A) The oxygen end of water
- B) The hydrogen end of water
- C) Other chlorine atoms
- D) Metal cations