

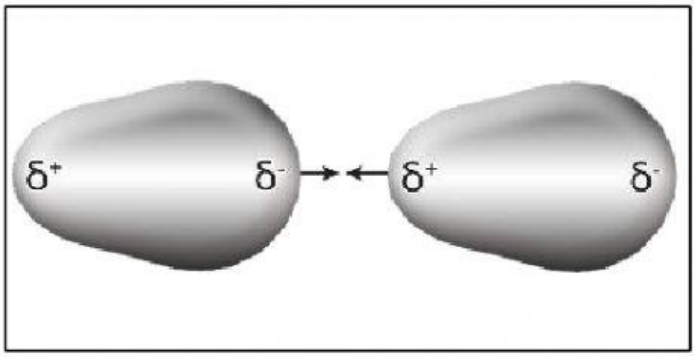
What's New

Activity 1: Description of Intermolecular Forces

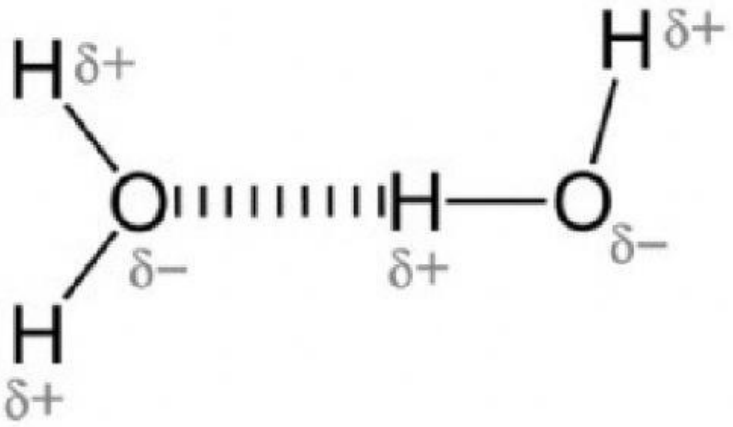
The following activity introduces you to various types of intermolecular forces (IMF) existing between and among different kinds of substances. By analyzing the presented diagrams, you can deduce what IMF is involved in each set.

Directions: Using the illustrations below, describe what happens in each of the attractions between substances by completing each sentence with the correct words. Tell what kind of attractive forces keep the substances together.

1. This attraction happens between _____ molecules. The charges align so that the positive pole of one molecule is _____ to the negative end of the other molecule. Kind of interaction: _____

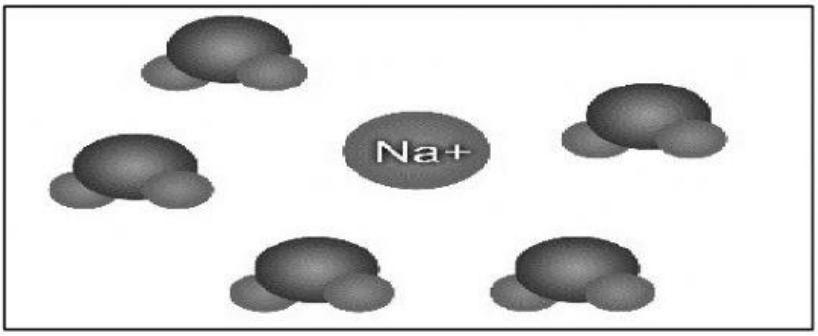


2. The partially- _____ oxygen of one water molecule is _____ to the partially- _____ hydrogen of the other water molecule.
Kind of attraction: _____

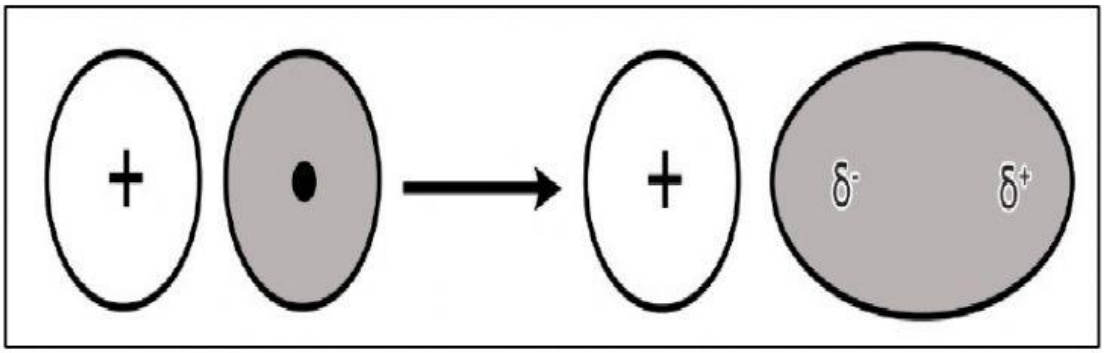


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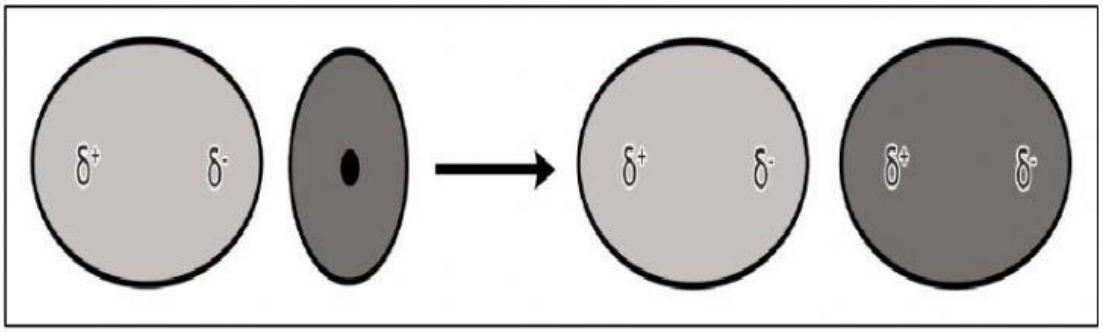
2. The _____ sodium ion is attracted to the partially _____ end of water molecules. Kind of attraction: _____



3. A _____ ion or _____ approaches a neutral _____ substance. This results in a distortion of the substance and leads to the development of positive and negative poles. Kind of attraction: _____



4. A permanent _____ approaches a neutral _____ substance resulting to a _____ dipole. Kind of attraction: _____



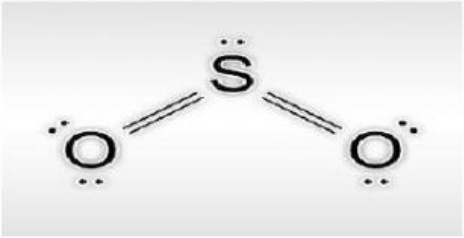
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Activity 2. Intermolecular Forces Among Substances

Directions: Identify the intermolecular forces (IMF) present among the following species. You can use the choices more than once if applicable

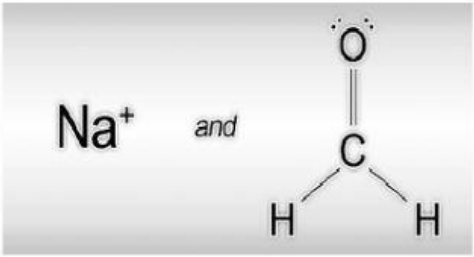
a. Sulfur dioxide (SO2) and another SO2

dispersion
dipole-dipole
hydrogen bond
ion-dipole
ion-induced dipole



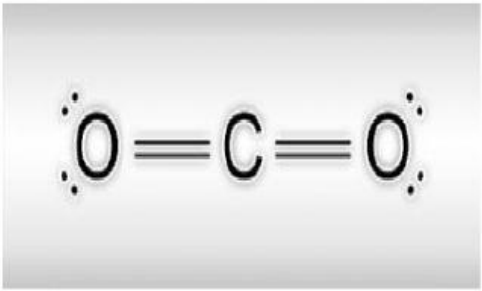
b. Sodium ion (Na+) and Formaldehyde (CH2O)

dispersion
dipole-dipole
hydrogen bond
ion-dipole
ion-induced dipole



c. Carbon dioxide (CO2) with another CO2

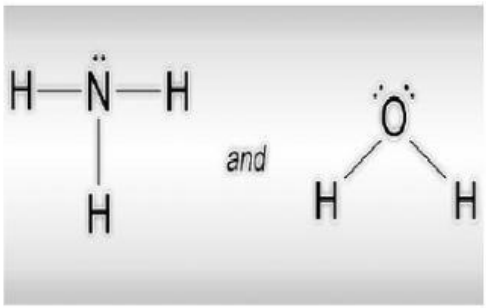
dispersion
dipole-dipole
hydrogen bond
ion-dipole
ion-induced dipole



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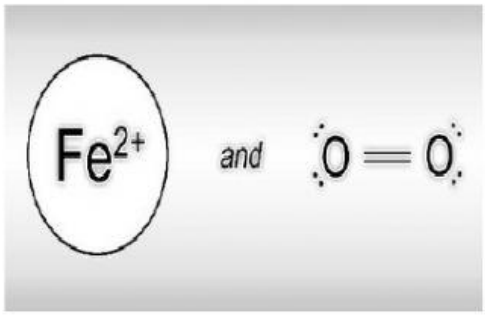
d. Ammonia (NH3 and H2O)

dispersion
dipole-dipole
hydrogen bond
ion-dipole
ion-induced dipole



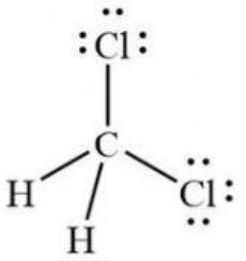
e. Fe^{2+} and O2

dispersion
dipole-dipole
hydrogen bond
ion-dipole
ion-induced dipole



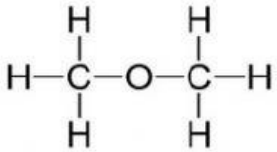
f. Dichloromethane (CH2Cl2) with another CH2Cl2

dispersion
dipole-dipole
hydrogen bond
ion-dipole
ion-induced dipole



g. Dimethyl ether (CH3-O-CH3) with another CH3-O-CH3

dispersion
dipole-dipole
hydrogen bond
ion-dipole
ion-induced dipole



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