

Group Work Report Form

CHEM 0101: Introduction to Chemistry

Group Work 8: IMF's and States of Matter

Describe the following attractive forces

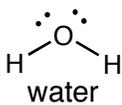
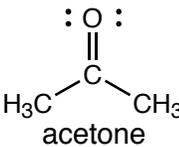
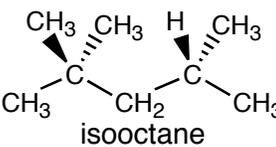
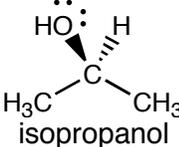
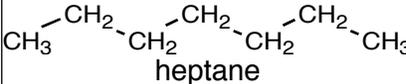
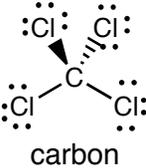
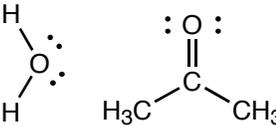
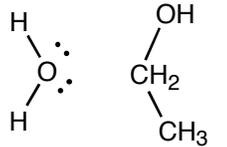
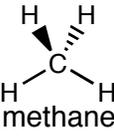
Ionic

dipole-dipole

London Dispersion Forces

Hydrogen Bonds

What attractive forces would exist between each set of particles below (if only one particle is listed the interaction would be with another particle just like it).

 <p>water</p>	 <p>acetone</p>	 <p>isooctane</p>	$\text{:N}\equiv\text{N:}$ nitrogen
$[\text{Ag}]^+ [\text{:Cl:}]^-$ silver chloride	 <p>isopropanol</p>	 <p>heptane</p>	 <p>carbon tetrachloride</p>
$[\text{:}\ddot{\text{O}}\text{:N}(\text{O})\text{:}]^- [\text{Na}]^+$ sodium nitrate	 <p>water and acetone</p>	 <p>water and ethanol</p>	 <p>methane</p>

Considering that the boiling point of water is 100 °C whereas the boiling points of methane and nitrogen are -166 and -96 °C respectively, which has the stronger intermolecular attractions?