

Water properties and pH scales

1. What is the difference between cohesion and adhesion?

Cohesion is unique water property that the water molecules form hydrogen and hydrophobic as its associated to each other. Adhesion allows water molecules to be associated to other polar molecules. Adhesion and cohesion arise from hydrogen bonding of water molecules.

2. How does the specific heat of water help our cells?

Specific heat of water is when water can resist changes in temperature. This water property allows our body to absorb considerable amount of heat to avoid temperature of water, which can lead to damage to our body.

3. How does the heat of vaporization of water help our cells?

Water has high heat of vaporization this allows water to absorb considerable amount of heat. This allows water to cool cells to absorb considerable amount of heat without damaging the cells.

4. What happens to water when it freezes?

When water freezes it becomes less dense than liquid so the molecules of water forming very big structures in its solid phase. This property allows water to freeze the top down, which allows organisms that live in water to survive.

5. What is the difference between hydrophilic and hydrophobic molecules?

Hydrophilic is when the polar molecules are associated to polar molecules of water also known as water loving molecules. Hydrophobic is when nonpolar molecules are afraid of polar water molecules also known as water fearing molecules.

6. What is hydrophobic hydration?