Anomalies of water

Science, Chemistry



ANOMALIES OF WATER 5. Water's high cohesion and high surface tension (its property of " sticking together" strongly, forming droplets and making watersurface resist being stretched or broken).

It is certainly not all liquids that have the kind of high cohesion and high surface tension that water has. Most liquids would not allow other particles to float on them because the do not stick together strongly. Subsequently, such liquids cannot form droplets because they cannot resist stretch and will easily break apart. The uniqueness of water's high cohesion is directly associated with its molecules, which has very strong attraction forces between them. Knowing that water molecules are formed by two hydrogen atoms and one oxygen atom makes the understanding of the force of attraction between the molecules guite easier. This is because the two hydrogen atoms have special way of bonding to the one oxygen atom whereby they get bonded to the top of the molecule. Subsequently, " this molecular structure gives the water molecule polarity or a lopsided electrical charge that attracts other atoms" (Home Science Tools, 2012). Because the molecule formed is charged to attract other atoms, it makes water gain its strong bonding, making surface tension and formation of droplets possible. Without any doubt, this anomaly of water makes it arguably the most important liquid, significant for life on earth. If for nothing at all, it is known that "It covers about 70% of Earths surface and it makes up 65-75% of our bodies (82% of our blood is water)." What this means is that without the stretching property of water, transport through 70% of the earth's surface would have been cut off and made impossible because ships, boats and other water vessels would not have been able to travel on the surface of

water. These objects would have simply sunk deep under water. Again, knowing that rains come in the form of droplets, the world would also have lacked the rain drops because water would have perhaps not had the property to flow all the way from the skies to the earth. This shows how perfectly water matches up in God's design for the earth and life because as much as life would not have existed without water; water has been made in a way that makes it easier to be part of life.

CITED WORKS

Home Science Tools, Properties of Water. 2012. Web. September 5, 2012