

Part B True-False

Classify each of these statements as always true, AT; sometimes true, ST; or never true, NT.

- _____ 14. Hydrogen bonding is responsible for the polar nature of the water molecule.
- _____ 15. The water molecule is a straight molecule.
- _____ 16. Detergents lower the surface tension of water by interfering with the formation of hydrogen bonds.
- _____ 17. Ice is more dense than water.
- _____ 18. Water becomes more dense as it is cooled.

Part C Matching

Match each description in Column B to the correct term in Column A.

Column A

Column B

- | | |
|--|---|
| <ul style="list-style-type: none"> _____ 19. surface tension _____ 20. surfactant _____ 21. hydrogen bond | <ul style="list-style-type: none"> a. inward force that tends to minimize the surface area of a liquid b. intermolecular attraction between a hydrogen atom and a highly electronegative atom such as oxygen, on an adjacent molecule c. a wetting agent |
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Part D Question

Answer the following in the space provided.

22. State whether each of the following properties of water is higher or lower than compounds of similar size and molecular mass.

a. vapor pressure _____

b. surface tension _____