

1. Complete the following sentence:

Other things being equal, cloudy nights tend to be warmer than cloudless nights because water vapor “keeps the heat in” which is another way of saying that water molecules strongly...

(please complete the sentence as best you can).

Molecular description: water molecules strongly absorb: infrared radiation.

2. All of the following statements are true except one. Check it.

a. ___ Making a solution involves a physical change.

Solid plus liquid combine to form a liquid phase: definitely a physical change.

b. ___ Solutions are homogeneous. Definition of ‘solution’.

c. ___ Solutions are transparent to light. Very true.

d. X Solutions are colorless.

False. Many solutions are colored owing to the color of the solute. For example, copper sulfate (the hydrated form) is blue and readily dissolves in water to form, you guessed it, a blue SOLUTION.

e. ___ Heat may be given off or absorbed during the process of making a solution. True.