## Answer on Question #82786 - Chemistry - Physical Chemistry

## Question:

Water occurs in different states: Ice, liquid, vapor and as supercritical fluid. To reach the supercritical state, water has to go through the so-called "supercritical point". At this point: options:

the compressibility of liquid and vapor phase are equal.

there is no longer any interaction between single water molecules.

ice, liquid and vapor phase are co-existing.

water loses its polar moment and becomes a non-polar solvent.

## **Solution:**

If any boiling liquid (when there is an equilibrium between liquid and vapor) continue to heat and increase the pressure, then at some point the density of the liquid and vapor become the same, and the interface between these phases disappears. At this critical point, the substance enters an intermediate state — it becomes not a gas or a liquid.

So, correct answer is the compressibility of liquid and vapor phase are equal.

**Answer:** the compressibility of liquid and vapor phase are equal.

Answer provided by www.AssignmentExpert.com