

Textbook Homework

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Ch 8

8.33

- a) Ge-F
- b) P-Cl
- c) S-F
- d) Ti-Cl

8.43

- a) Yes
- b) No
- c) No
- d) yes
- e) no
- f) no

8.47

- a) Li_3N , Lithium Nitride
- b) Ga_2O_3 , Gallium Oxide
- c) RbCl , Rubidium Chloride
- d) Ba_3S_2 , Barium Sulfide

8.51

- a) Sc^{3+}
- b) Te^{2-}

- c) Ce^{4+}
- d) Ba^{2+}

8.58

- V, V^{2+} , V^{3+} , V^{5+}
- Cs^+ , Rb^+ , K^+ , Na^+
- Cs^+ , Ba^{2+} , Te^{2-} , I^-
- P^{3-} , P^{2-} , P^- , P
- Te^{2-} , Se^{2-} , S^{2-} , O^{2-}

Ch 10

10.9

- Evaporation: When a substance changes from a liquid to a gas.
- Condensation: When a substance changes from a gas to a liquid.
- Sublimation: When a substance change directly from a solid to a gas.
- Boiling: The act of heating a liquid past so it evaporates.
- Melting: Heating a solid enough that it becomes a liquid.
- Enthalpy of Vaporization: Amount of energy that needs to be added to a substance for it to evaporate.
- Enthalpy of fusion: The amount of energy needed to change a solid to a liquid.
- Heating Curve: Graph showing the amount of energy needed for each of an element's phase changes.

10.38

- BaSO_4 : Ionic bond between Ba and SO_4 creates Dipole.
- H_2S : Dipole forces
- Xe: Instantaneous dipole-induced forces
- C_2H_6 : Instantaneous dipole-induced forces
- CsI : Ionic bond between Cs and I creates Dipole.
- P_4 : Dipole forces (unshared on center)
- NH_3 : Dipole forces (unshared on center)

10.43

- HBr : Has polarity, and LD forces
- NaCl : Ionic bond wins out
- I_2 : LD forces because it's bigger
- N_2 : nonpolar, smallest so small LD
- CH_4 : same as above
- HF : Hydrogen bond