Session 7

Feb. 11 2014

1. What types of interactions increase solubility of compounds in solution, solute-solute interactions or solute-solvent interaction? Explain.

b. Which compound is more likely to be miscible in water? CH3OH or CH3(CH2)5OH.

2. Breaking bonds is an \_\_\_\_\_\_\_\_\_\_(exothermic, endothermic) process while making bonds is an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(exothermic, endothermic) process.

3. Illustrate the hydration of NaCl.

4. Determine which of the following has higher lattice energy

a. KCl or KF

b. BeCl2 or LiCl

c. CaBr2 or MgBr­­­2

5. Determine which of the following is more soluble in H2O.

a. KCl or KF

b. BeCl2 or LiCl

c. CaBr2 or MgBr­­­2

6. When NaCl is dissolved in H2O at a specific temperature, the net ∆H of the reaction is positive. Yet, the reaction occurs spontaneously. Explain why.

7. True/False: When Q < Kc, a solution is unsaturated.