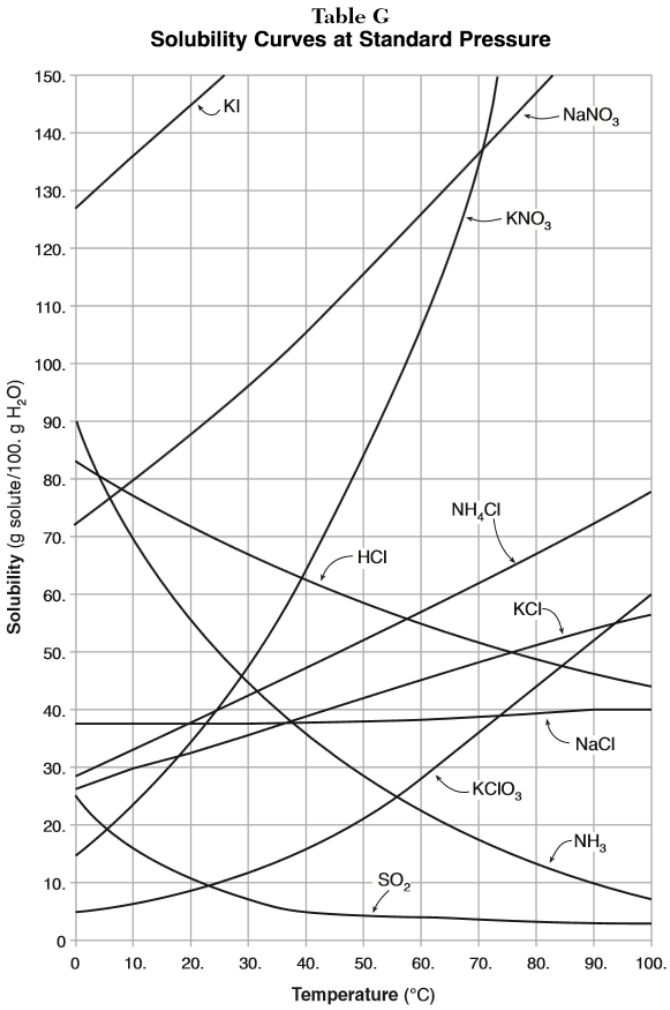
Chemistry Name: _____

Section _____ SOLUBILITY CURVES II Date: _____

Solubility Curves Part II. Use the NYS Chemistry Reference Table G to answer the following questions.



1. What substance is least soluble in water at 20°C?

   $KClO_3$

2. How many grams of potassium chloride can be dissolved in 200 g of water at 80°C?

   104 g KCl

3. At 40°C, how much potassium nitrate can be dissolved in 300 g of water?

   192 g KNO_3

4. Which salt shows the least change in solubility from 0°C to 100°C?

   NaCl

5. At 30°C, 90 g of sodium nitrate is dissolved in 100 g of water. Is this solution saturated, unsaturated, or supersaturated?

   Unsaturated.

6. A saturated solution of potassium chlorate is formed from one hundred grams of water. If the saturated solution is cooled from 80°C to 50°C, how many grams of precipitate are formed?

   44 g – 21 g (or 44 g – 22 g) or about 22 to 23 g of KCl precipitates.

7. Which compounds show a decrease in solubility from 0°C to 100°C?

   The molecular substances (SO_2, NH_3, and HCl) show solubility decreases.

8. Which substance is most soluble at 10°C? KI is most soluble at 10°C

9. Which salt is least soluble at 20°C? $KClO_3$ is least soluble at 20°C

10. Which salt is least soluble at 80°C? NaCl is the least soluble salt 80°C