

SOLUBILITY CURVES

Name Key Wed

Answer the following questions based on the solubility curve below.

1. Which salt is least soluble in water at 20° C? KClO₃

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

50g x 2 = 100g

3. At 40° C, how much potassium nitrate can be dissolved in 300 g of water? 41g x 3 = 123g

4. Which salt shows the least change in solubility from 0° - 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? 20g 40g 20g

7. What compound shows a decrease in solubility from 0° to 100° C? NH₃ (g)

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

9. Which salt is least soluble at 50° C? KClO₃

10. Which salt is least soluble at 90° C? NH₃ ⇒ not a salt ANSWER: NaCl

