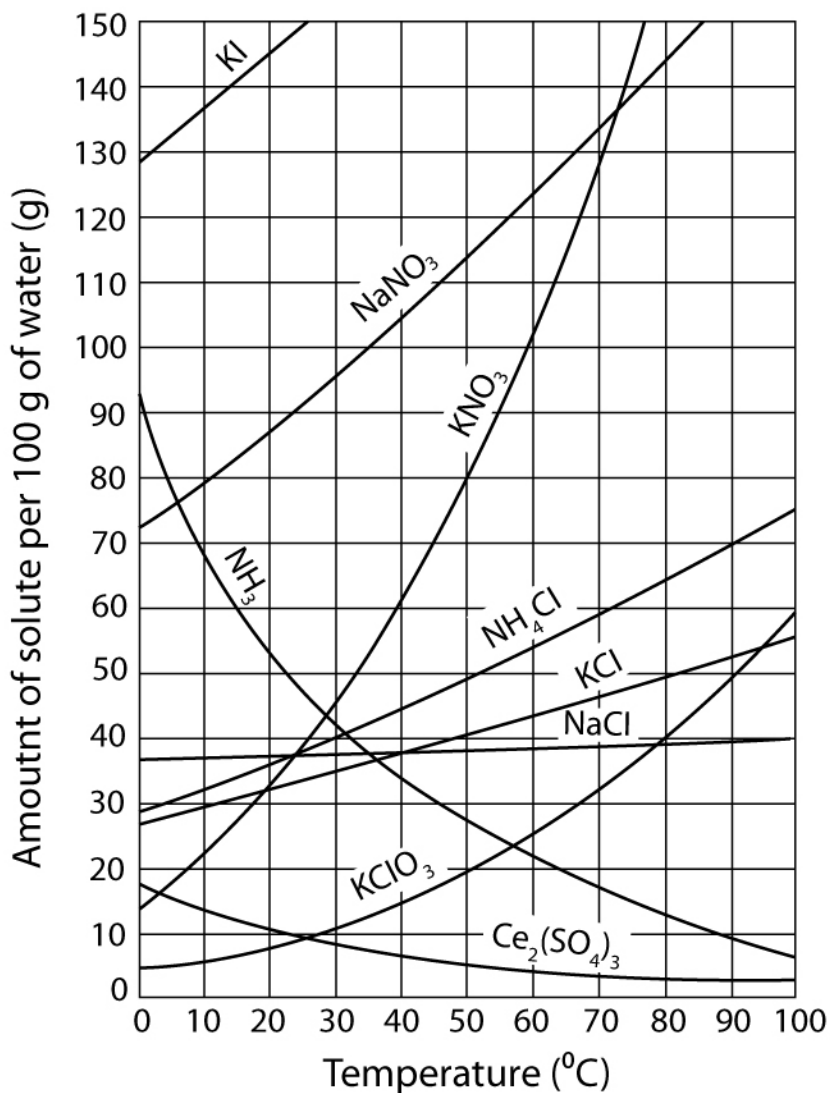


Solubility Worksheet



Using the above solubility curve, answer the given questions.

1. At 90 °C, you dissolve 10 g of KCl in 100 g of water. Is this solution saturated or unsaturated?

How do you know? _____

2. A mass of 100 g of NaNO₃ is dissolved in 100 g of water at 80 °C.

a. Is the solution saturated or unsaturated? _____

b. As the solution is cooled, at what temperature should the solid first appear? _____

Explain: _____

3. Use the graph to answer the following two questions:

a. Which compound is most soluble at 20 °C? _____

b. Which is least soluble at 40 °C? _____

4. Which substance on the graph is least soluble at 10 °C? _____

5. How many grams of NaNO₃ are required to saturate 100 grams of water at 75°C? _____

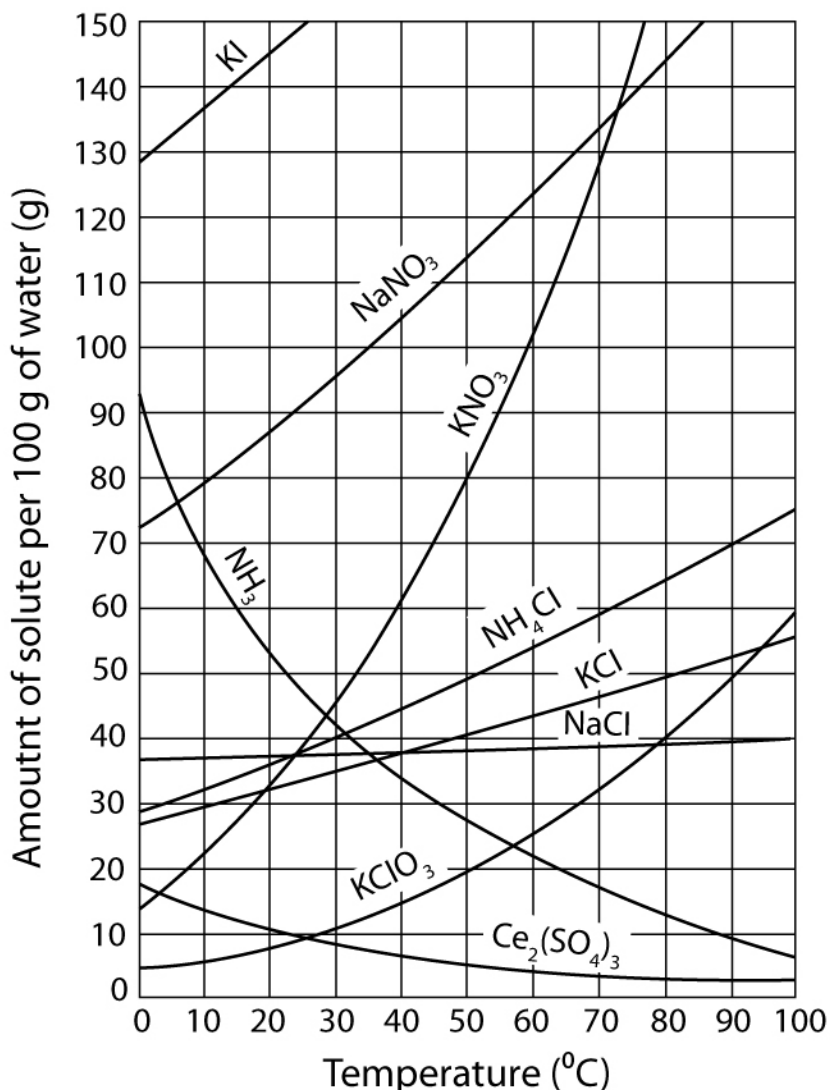
6. How many grams of KI will saturate water at 20°C? _____

7. At what temperature would 25 g of potassium chlorate (KClO₃) dissolve? _____

8. At what temperature would 60 g of NH₄Cl dissolve? _____

Solubility Worksheet

Answers



Using the above solubility curve, answer the given questions.

1. At 90 °C, you dissolve 10 g of KCl in 100 g of water. Is this solution saturated or unsaturated?
unsaturated

How do you know? The graph shows that 52 grams are required for saturation.

2. A mass of 100 g of NaNO₃ is dissolved in 100 g of water at 80 °C.

a. Is the solution saturated or unsaturated? unsaturated

b. As the solution is cooled, at what temperature should the solid first appear? 35 °C

Explain: The graph shows that at 35 °C only 100 g is required to saturate the solution.

3. Use the graph to answer the following two questions:

a. Which compound is most soluble at 20 °C? KI

b. Which is least soluble at 40 °C? Ce₂(SO₄)₃

4. Which substance on the graph is least soluble at 10 °C? KClO₃

5. How many grams of NaNO₃ are required to saturate 100 grams of water at 75°C? 140g

6. How many grams of KI will saturate water at 20°C? 33g

7. At what temperature would 25 g of potassium chlorate (KClO₃) dissolve? 60°C

8. At what temperature would 60 g of NH₄Cl dissolve? 70°C