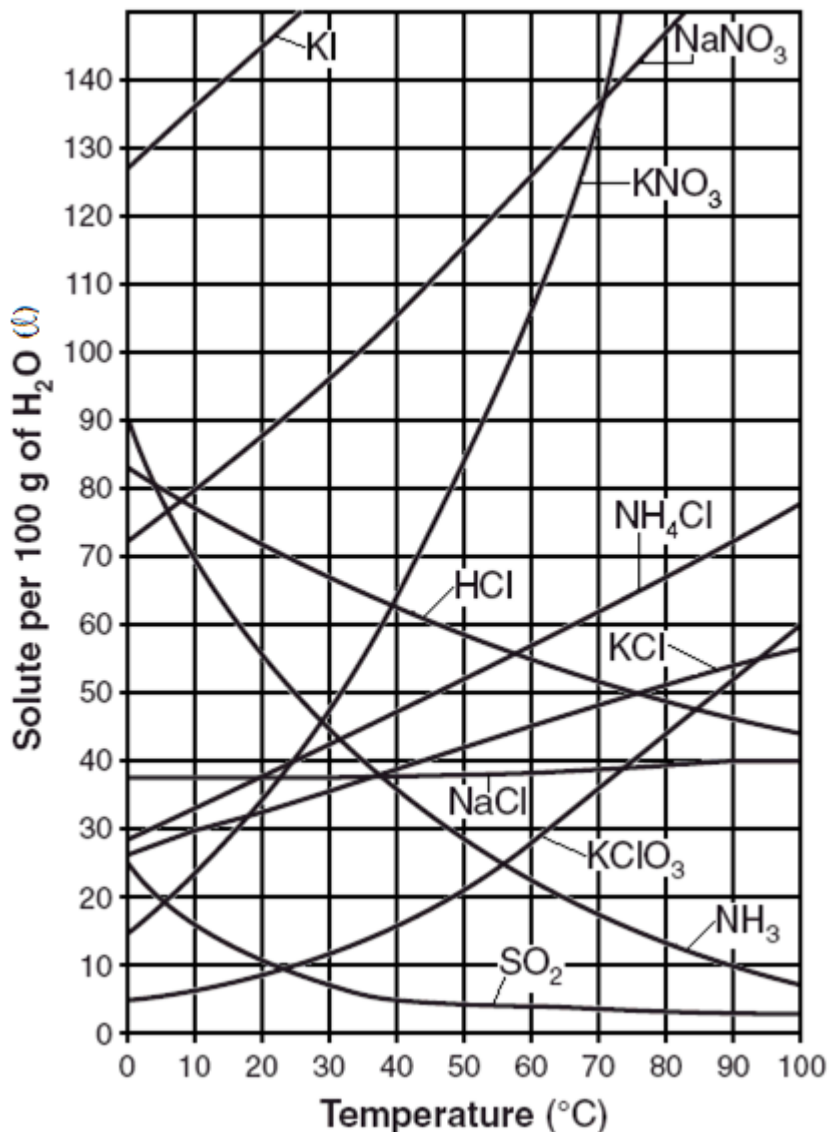


Problem Set #12

Name:



Use the solubility curve to answer these questions.

1. At what temperature does 60 grams of HCl dissolved in 100 grams of water make a saturated solution?
2. How many grams of NH₃ can be dissolved in 100 grams of water at 90°C?
3. What two substances have the same solubility at 84°C? What is the solubility?
4. If a solution is made by adding 130 grams of KI to 100 grams of water at 10°C, is the solution saturated, unsaturated, or supersaturated?
5. How many grams of solid precipitate will form if a saturated solution of KNO₃ is cooled from 70°C to 40°C?
6. A solution contains 10 grams of KCl at 10°C. How many more grams of KCl need to be added to create a saturated solution?
7. How many grams of NaNO₃ will dissolve in 200 grams of water at 40°C?

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8. How many grams of Sr(NO₃)₂ need to be dissolved in enough water to make 575 mL of a 1.75 M solution?
 9. What is the molarity of a solution created by diluting 45.0 mL of 6.85 M HNO₃ to 150.0 mL?
 10. What is the molarity of a solution made by dissolving 42.95 grams of Na₂CO₃ in enough water to make 750.0 mL?
 11. How much 12.0 M HCl should be diluted to make 600.0 mL of a 1.25 M solution?