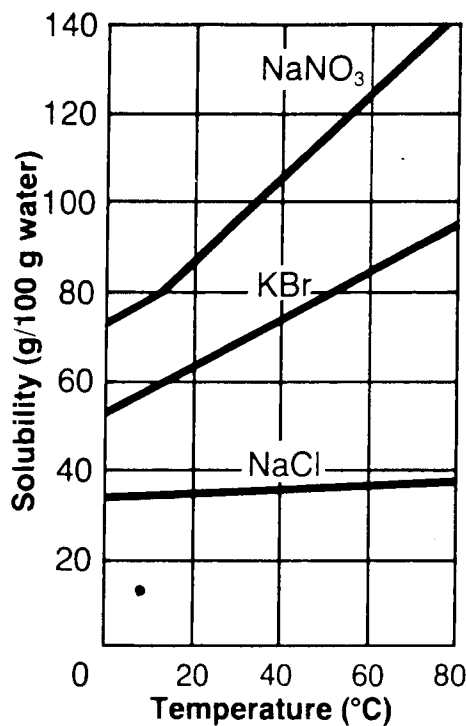


USING SOLUBILITY CURVES

Use the diagram to answer the following questions.



- Does the solubility of sodium nitrate increase or decrease with increasing temperature?
Increase
- Look at the solubility curves for NaCl and NaNO₃. Which compound's solubility depends most on temperature? Sodium nitrate
- At most, how many grams of KBr could be dissolved in 100 g of water at 80°C?
95 grams At 50°C? 80 grams
- NaNO₃ is added to 100 g of water until no more NaNO₃ will dissolve. If 80 g of NaNO₃ have dissolved at this point, what must the temperature of the solution be?
about 11°C
- 60 g of NaCl are added to 100 g of water at 20°C. Despite vigorous stirring, only part of the salt will dissolve in the water and the rest will just settle to the bottom of the container. How many grams of salt will remain undissolved? 25 grams
- 40 g of NaNO₃ are dissolved in 100 g of water at 35°C. Is this solution saturated or unsaturated? How do you know? unsaturated; solubility at 35°C is about 100 gram sodium nitrate per 100 gram water.