

CHEMISTRY

NCERT - NCERT Chemistry(Tamil)

SOLUTIONS

I Problems Based On Solubility

1. 1.5 g of solute is dissolved in 15 g of water to form a saturated solution at 298K. Find out the solubility of the solute at the temperature.



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2. Find the mass of potassium chloride would be needed to form a saturated solution in 60 g of water at 303 K? Given that solubility of the KCl is 37/100 g at this temperature.



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3. What is the mass of sodium chloride that would be needed to form a saturated solution

in 50 g of water at $30^{\circ}C$. Solubility of sodium chloride is 36 g at $30^{\circ}C$?



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4. The Solubility of sodium nitrate at $50^{\circ}C$ and $30^{\circ}C$ is 114 g and 96 g respectively. Find the amount of salt that will be thrown out when a saturated solution of sodium nitrate containing 50 g of water is cooled from $50^{\circ}C$ to $30^{\circ}C$?



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ii Problem Based On Mass Percentage

1. A solution was prepared by dissolving 25 g of sugar in 100 g of water. Calculate the mass percentage of solute.



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2. 16 grams of NaOH is dissolved in 100 grams of water at 25°C to form a saturated solution.

Find the mass percentage of solute and solvent.



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3. Find the amount of urea which is to be dissolved in water to get 500 g of 10% w/w aqueous solution?



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iii Problem Based On Volume Volume Percentage

1. A solution is made from 35 ml of Methanol and 65 ml of water. Calculate the volume percentage.



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2. Calculate the volume of ethanol in 200 ml solution of 20% v/v aqueous solution of ethanol.



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