(2) Write a net ionic equation (balanced, all charges, subscripts, arrow(s) correct, correct order etc.) for the ***crystallization*** of calcium dichromate. (2 marks)

$Ca^{2+}_{(aq)} + Cr_2O_7^{2-}{}_{(aq)} \rightarrow CaCr_2O_7{}_{(s)}$

8. (2) Write a net ionic equation (balanced, all charges, subscripts, arrow(s) correct, correct order etc.) for ***dissolving*** ammonium oxalate. (2 marks)

$(NH_4)_2C_2O_4{}_{(s)} \rightarrow 2NH_4^+{}_{(aq)} + C_2O_4^{2-}{}_{(aq)}$

9. (2) Write a net ionic equation (balanced, all charges, subscripts, arrow(s) correct, correct order etc.) for the ***precipitation*** of magnesium sulphate. (2 marks)

$Mg^{2+}_{(aq)} + SO_4^{2-}{}_{(aq)} \rightarrow MgSO_4{}_{(s)}$

10. (2) Write a net ionic equation (balanced, all charges, subscripts, arrow(s) correct, correct order etc.) for the ***equilibrium present in a saturated solution*** of calcium oxalate. (2 marks)

$CaC_2O_4{}_{(s)} \rightleftharpoons Ca^{2+}_{(aq)} + C_2O_4^{2-}{}_{(aq)}$

11. (2) Calcium fluoride has a solubility of 6.87 grams/L at a certain temperature. Express this solubility in moles per Litre. (2 marks) (Show all work. Include units in your answer. Use correct # of S.D.'s)

$6.87\ \frac{g}{L} \times \frac{1\ mol}{78.1\ g} = 0.0880\ mol/L$ $(8.80 \times 10^{-2}\ mol/L)$

Answer 0.0880 mol/L

12. The molar solubility of Ag_2CO_3 at a certain temperature is 8.3×10^{-5} M. Express this solubility in grams per Litre. (2 marks) (Show all work. Include units in your answer. Use correct # of S.D.'s)

(2) $8.3 \times 10^{-5}\ \frac{mol}{L} \times \frac{275.8\ g}{1\ mol} = 0.023\ g/L$ $(2.3 \times 10^{-2}\ g/L)$

Answer 0.023 g/L

13. (2) 0.0021 grams of $MgCO_3$ will dissolve in 1.0 L of water at a certain temperature. Express this solubility in grams/100 mL of water. (2 marks) (Show all work. Include units in your answer. Use correct # of S.D.'s)

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Answer 0.00021 g/100mL H_2O

$(2.1 \times 10^{-4}\ g/100mL\ H_2O)$