

Year 13 Equilibria Revision Helpsheet

Lesson Objectives	Tasks		
Know that K_c is the equilibrium constant calculated from equilibrium concentrations for a system at constant temperature	Explain what a dynamic equilibrium is.	Describe how titration can be used to determine the equilibrium concentrations of a dynamic equilibrium.	Explain why titration can be used to determine the concentrations at equilibrium even though the reversible reaction is ongoing.
Be able to construct an expression for K_c for an homogeneous system in equilibrium;	Write an expression for the equilibrium constant for the reaction $2A + B \rightarrow 3C$	Write an expression for the equilibrium constant for the reaction $A + 3B \rightarrow 2C + D$	Explain how to construct an expression for K_c
Be able to perform calculations involving K_c	Write an expression for K_c for the reaction $A + B \rightarrow C + D$	Work out the number of moles at equilibrium for the reaction $A + B \rightarrow C + D$ if there are 0.5 moles of A and 0.25 moles of B at the start and 0.15 moles of C at equilibrium.	Use the previous calculation to work out K_c for the reaction $A + B \rightarrow C + D$
Be able to predict the effects of changes of temperature on the value of the equilibrium constant	For an endothermic reaction which direction will the equilibrium go when the temperature increases?	For an endothermic reaction what will happen to the value of K_c when the temperature increases?	For an endothermic reaction what will happen to the value of K_c when the temperature decreases?
	For an exothermic reaction which direction will the equilibrium go when the temperature increases?	For an exothermic reaction which direction will the equilibrium go when the temperature increases?	For an exothermic reaction what will happen to the value of K_c when the temperature increases?
Understand that the value of the equilibrium constant is not affected by changes either in concentration or the addition of a catalyst	Explain why a catalyst does not affect the value of the equilibrium constant	Explain why changing the concentration of one or more of the species involved in an equilibrium does not affect the value of the equilibrium constant	