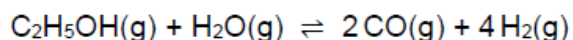


AQA – Chemical equilibria, Le Chatelier's principle and K_c – AS Chemistry P2

1. No.8

0 8

Hydrogen gas can be made by reacting ethanol with steam in the presence of a catalyst.



0 8 . 1

Give an expression for K_c for this equilibrium.

State its units.

[2 marks]

K_c

Units of K_c _____

0 8 . 2

Table 4 shows the amount of each substance in an equilibrium mixture in a container of volume 750 cm³

Table 4

Substance	C ₂ H ₅ OH(g)	H ₂ O(g)	CO(g)	H ₂ (g)
Amount of substance / mol	0.0750	0.156	0.110	0.220

Calculate K_c

[3 marks]

K_c _____

08.3

The pressure of the equilibrium mixture was increased by reducing the volume of the container at constant temperature.

Predict the effect of increasing the pressure on the equilibrium yield of hydrogen.
Explain your answer.

Predict the effect of increasing the pressure on the value of K_c

[4 marks]

Effect on equilibrium yield of hydrogen _____

Explanation _____

Effect on value of K_c _____
