

POSITION OF EQUILIBRIUM

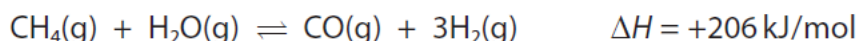
Paper: 2CR
Question: 7(b)(i)

Question

Hydrogen gas can be produced by reacting a mixture of methane and steam in the presence of a nickel catalyst.

The reaction conditions are a temperature of 700 °C and a pressure of 5 atmospheres.

The equation for the reaction is



- (b) (i) The mixture of methane and steam is heated to a temperature greater than 700 °C but the pressure is kept at 5 atmospheres.

Predict the effect of this change on the yield of hydrogen at equilibrium, giving a reason for your answer.

(2)

Mark Scheme

(i)Ex	M1 yield increases	ACCEPT more hydrogen produced
	M2 (equilibrium shifts to the right as the forward) reaction is endothermic	IGNORE references to Le Chatelier e.g. an increase in temperature favours the forward reaction
		M2 dep on M1 correct or missing