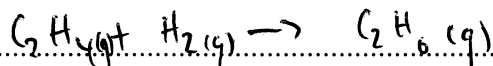


Question 24 (4 marks)

In the margarine industry, alkenes are often hydrogenated to convert unsaturated oils into solid fats that have a greater proportion of saturated molecules.

- (a) Using ethene as an example, write an equation for this reaction and state the type of reaction this represents. 2



hydrogenation addition reactions

- (b) Describe a test that could be used to confirm that all the ethene has been converted. 2

~~Blow $\text{Br}_2(\text{aq})$ into the reaction vessel. if there~~
take a sample of the unsaturated oils and solid fats
and place into a test tube. add 2 drops of bromine
water and see if any decolourisation occurs. if
there is still a brown colour of the Bromine then
all of the ethene has been converted as if it was
present the Bromine will undergo an addition
reaction to form 1,2 dibromoethane.