

Question 17 (3 marks)

Explain why alkanes and their corresponding alkenes have similar physical properties, but very different chemical properties. 3

Alkanes are similar to alkenes in their properties. They have similar melting points and boiling points, ~~and~~ ~~the same~~ ~~make-up~~. However, their chemical properties differ in respect to how they react. Alkenes contain a double bond ($C=C$) which makes them very reactive as this bond opens out into two single bonds. Alkanes only contain single bonds in their structure so are less reactive; hence more stable.