

Cracking

Chemistry - Key Stage 4

Organic Chemistry

Miss Mason



Recap

1. What is the name of the process we use to separate out the different hydrocarbons from a crude oil mixture?
2. What piece of equipment/machinery is needed for the above process?
3. Describe the temperature gradient within the above piece of equipment/machinery.
At the bottom of the f_____ c_____, there is a very _____ temperature. As you move up the column, the temperature gets _____. The temperature at the bottom is approximately _____°C whilst the temperature at the top is around _____°C.
4. Identify 5 of the fractions from the process and what they can be used for.
P_____ →
N_____ →
K_____ →
D_____ →
B_____ →



Knowledge check

In a fractionating column, short-chain hydrocarbons collect near the ____ because...

Long-chain hydrocarbons collect near the _____ because...

There is a higher demand for short-chain hydrocarbons because...

There is a lower demand for long-chain hydrocarbons because...



Copy and complete

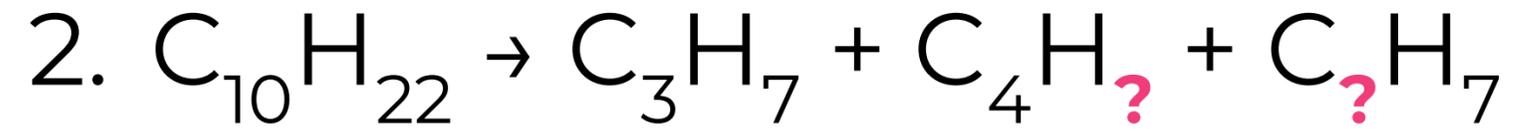
Cracking involves taking l_____c_____ h_____ and 'cracking' them into s_____, more u_____ molecules.

A long-chain a_____ is broken down into a shorter-chain a_____ and a_____.

Alkenes can contain d_____ b_____ and can be described as being u_____. They can be used in the manufacture of p_____.



Examples



Types of cracking

The two types of cracking are...

In t_____ cracking, the alkanes are subject to...

In c_____ cracking, the alkanes are subject to...



- 1. Describe what would happen to bromine water if propane was added to it and explain the reasons for this.**
- 2. Describe what would happen to bromine water if butene was added to it and explain the reasons for this.**

