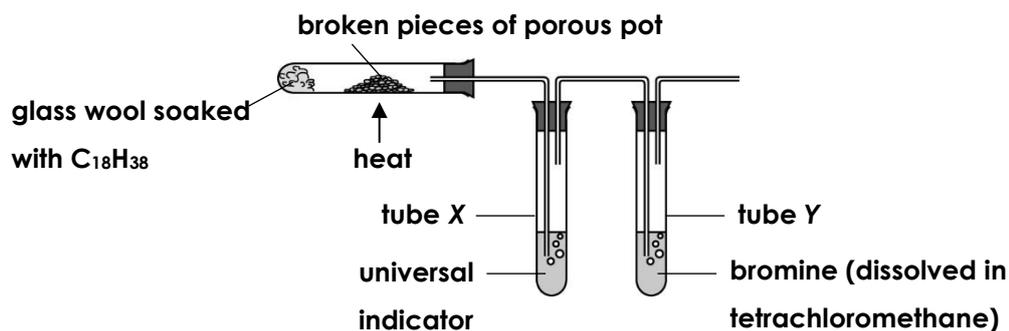


Quiz (Cracking)

The following diagram shows the cracking of paraffin.



- (a) State the colour change in tube X and Y.
- (b) The following equation represents the cracking of a straight-chained alkane.
- $$C_{18}H_{38} \longrightarrow 2P + 5Q + 2 \text{ Carbon} + H_2$$

It is known that P is an alkane with 3 carbon atoms. What is the molecular formula of Q ? Write a balanced chemical equation for the cracking.

Suggested Answer

(a) X: remain green
Y: orange bromine turns colourless immediately.

(b) Q: C_2H_4 / $CH_2=CH_2$
 $C_{18}H_{38} \longrightarrow 2C_3H_8 + 5C_2H_4 + 2C + H_2$