THE BURNING BURGER RING

Aim : To find out how much energy is released when a burger ring burns. We will be using the unit of heat energy – the joule – for working out the answer.

Method :

1. Clamp the test-tube onto the laboratory stand. PUT YOUR SAFETY GLASSES ON!

2. Using the measuring cylinder, measure exactly 10 mls of water and add it to the test-tube.

3. Use the thermometer to measure the initial temperature of the water. Record it in the table below.

4. Place the burger ring on the end of the large paper clip, under the test-tube of water.

5. Light a match under the burger ring. When the ring starts to burn, remove the match.

6. When the burger ring stops burning, gently stir the water in the test-tube with the thermometer, and measure the final temperature. Record it. Repeat the test three times.

TABLE OF RESULTS

test	Initial temperature of water	Final temperature after burning	Temperature difference
1			
2			
3			

Conclusion:

How many degrees did the temperature increase?

It takes 4.2 joules to raise the temperature of 1 ml. of water by 1'C.
(42 joules in 10 mls. of water)

So, to calculate the heat energy gained, multiply the temperature rise by 42.Your answer will then be in the units we use to measure heat energy.