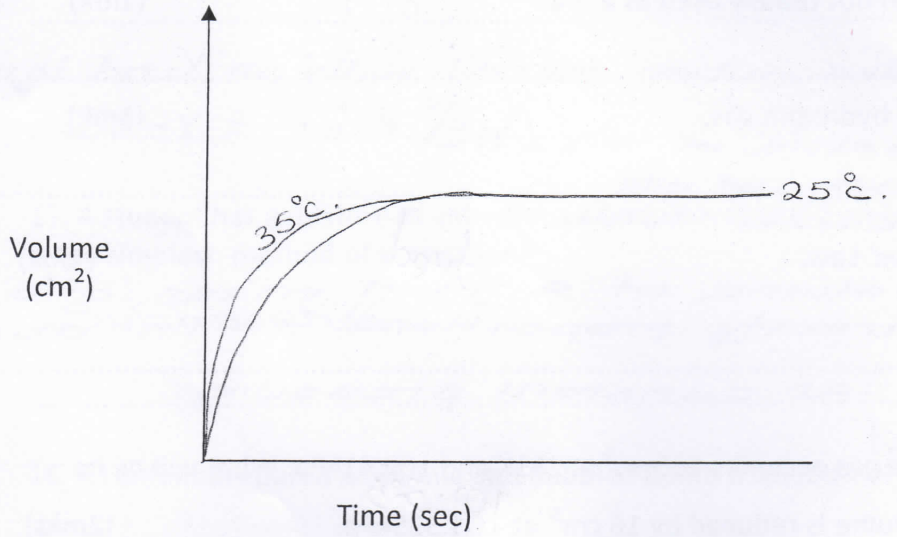
(+1845) + (−1884)

= −39 kJmol^{-1}

(b) State whether the reaction is exothermic or endothermic. Explain (1mk)

Exothermic - Bond formation energy is higher than bond breakage energy...

11. A certain mass of a metal E reacted with excess dilute hydrochloric acid at 25^{0}C. The volume of hydrogen gas liberated was measured after every 30 seconds. The results were represented as shown in the graph below. (1mk)



a) Name one piece of apparatus that may be used to measure the volume of gas liberated. (1mk)

Graduated gas Syringe.

↑ Graduated gas jar.

b) I) On the same axis, sketch the curve that would be obtained if the experiment was repeated at 35^{0}C. (1mk)

ii) Explain the shape of your curve in b(i) above. (2mks)

Increase in temp., increases the kinetic energy. This increases the number of effective collisions per given time, resulting in increase in rate of reaction.