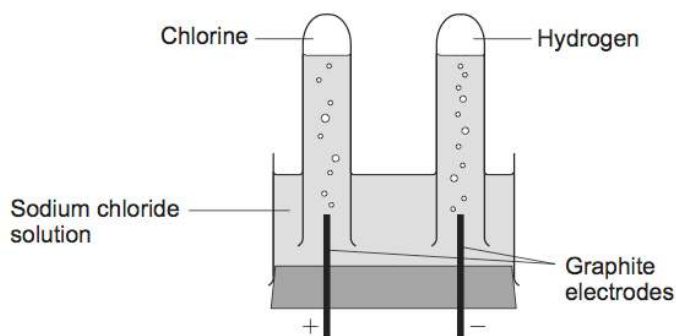


0 1

Sodium chloride solution can be used to produce hydrogen gas and chlorine gas.

A student did an experiment to produce hydrogen and chlorine gas.

The diagram shows the apparatus involved.



You have to be very careful with the key words for this type of question.

Remember OILRIG.

At the negative electrode, positively charged ions gain electrons (reduction) and at the positive electrode, negatively charged ions lose electrons (oxidation).

0 1

1

Describe what happens at the negative electrode when a current is flowing.

[3 marks]

Hydrogen ions/H<sup>+</sup> attracted (to the negative electrode)

[1]

Hydrogen ions gain electrons or each hydrogen ion gains an electron

[1]

Reduction or hydrogen ions reduced

[1]

Hydrogen atoms/molecules formed.

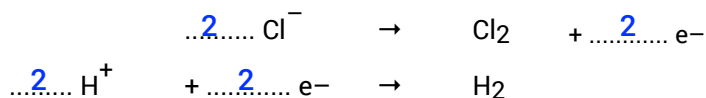
[1]

0 1

2

Balance the equations for the reactions at the electrodes.

[2 marks]



0 1

3

Name the other substance that is produced by this method.

[1 mark]

Sodium hydroxide (solution)

.....

(Total 6 marks)

End