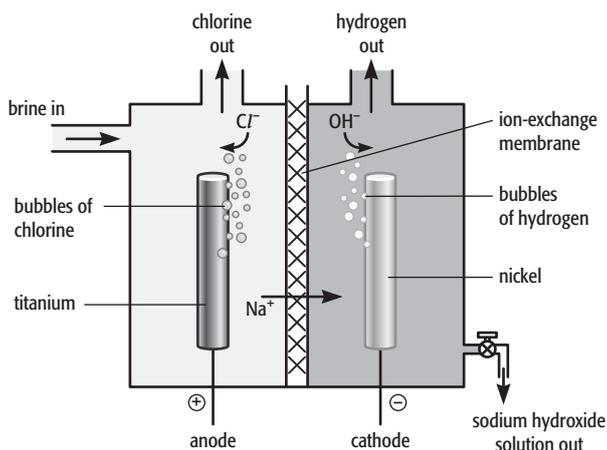


Worksheet 9.4

The industrial electrolysis of brine

Three important industrial chemicals can be made by electrolyzing brine (sodium chloride solution). Below is a diagram of the electrolysis of brine.



1 Give the half-equations to show what happens at the two electrodes during the electrolysis of brine.

a At the anode:

b At the cathode:

2 Why must the products at the electrodes be kept separate?

.....

3 What type of energy is used to bring about the decomposition of sodium chloride in this way?

.....

4 Give **one** main use of each of the products.

Hydrogen:.....

Chlorine:.....

Sodium hydroxide:.....