

1 Complete the gaps in the paragraph below. Use the words that are given to help.

electrolyte reduced solution compounds elements molten

Passing an electric current through ionic substances that are **molten** or in solution breaks them down into **elements**. This process is called electrolysis and the substance that is broken down is called the **electrolyte**.

(3 marks)

1 (a) (i) In the electrolysis of lead bromide, bromide ions (Br^-) are converted to bromine gas.

Explain in detail, how this happens. You do not need to include the half equation in your answer.

Bromide ions (or Br^-) attracted to positive electrode/anode [1 mark]

Electron lost from Bromide ions (or Br^-) [1 mark]

Bromide ions (or Br^-) are oxidised [1 mark]

and becomes and bromine atom [1 mark]

Two atoms of bromine make bromine gas/bromine/molecule of bromine [1 mark]

Remember to use the term bromine and bromide correctly.
Bromide is the ion (Br^-) and bromine is the atom (Br).

(4 marks)

(Total 7 marks)