

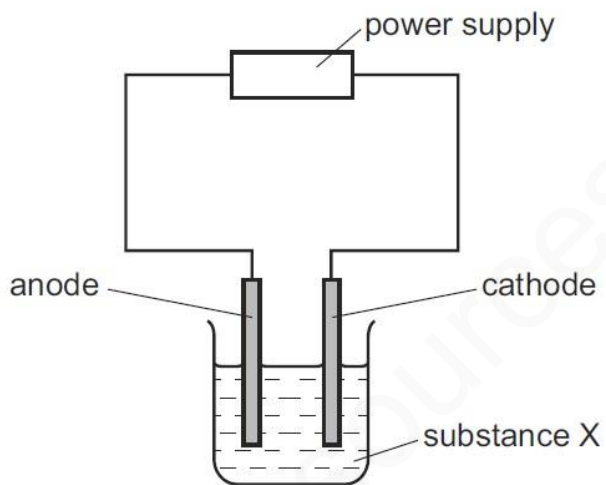
NO:

ELECTROLYSIS OF MOLTEN IONIC COMPOUNDS-SET-2

1

Substance X was electrolysed in an electrolytic cell.

A coloured gas was formed at the anode and a metal was formed at the cathode.



What is substance X?

- A** aqueous sodium chloride
- B** molten lead bromide
- C** molten zinc oxide
- D** solid sodium chloride

MS-1

B

2

Metals could be extracted from their molten chlorides using electrolysis.

Which substances are formed at each electrode?

	anode	cathode
A	chlorine	hydrogen
B	chlorine	metal
C	hydrogen	metal
D	metal	chlorine

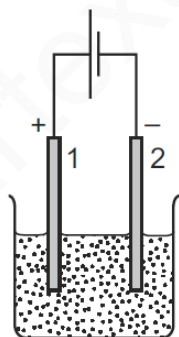
MS-2

B

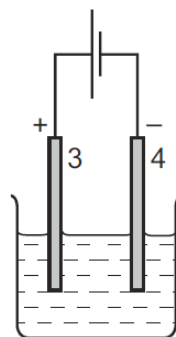
3

Two electrolysis experiments were carried out as shown in the diagram below.

The graphite electrodes are labelled 1-4.



molten
sodium chloride



concentrated aqueous
sodium chloride

Which row describes the products at the electrodes in these experiments?

	electrode 1	electrode 2	electrode 3	electrode 4
A	chlorine	hydrogen	chlorine	hydrogen
B	chlorine	sodium	chlorine	hydrogen
C	chlorine	sodium	hydrogen	chlorine
D	sodium	chlorine	sodium	chlorine

MS-3	B												
4	<p>I One molten compound and two aqueous solutions were electrolysed.</p> <p>The table gives the compounds electrolysed and the electrodes used.</p> <table border="1" data-bbox="537 493 1401 743"> <thead> <tr> <th></th> <th>substance electrolysed</th> <th>electrodes</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>concentrated hydrochloric acid</td> <td>carbon</td> </tr> <tr> <td>2</td> <td>concentrated sodium chloride</td> <td>platinum</td> </tr> <tr> <td>3</td> <td>molten lead bromide</td> <td>platinum</td> </tr> </tbody> </table> <p>In which experiments is a gas evolved at the cathode?</p> <p>A 1, 2 and 3 B 1 and 2 only C 1 only D 3 only</p>		substance electrolysed	electrodes	1	concentrated hydrochloric acid	carbon	2	concentrated sodium chloride	platinum	3	molten lead bromide	platinum
	substance electrolysed	electrodes											
1	concentrated hydrochloric acid	carbon											
2	concentrated sodium chloride	platinum											
3	molten lead bromide	platinum											
MS-4	B												

5	<p data-bbox="289 285 1422 327">Which row describes the electrolysis of molten potassium bromide?</p> <table border="1" data-bbox="297 369 1170 730"> <thead> <tr> <th data-bbox="297 369 396 443"></th> <th data-bbox="396 369 781 443">product at anode</th> <th data-bbox="781 369 1170 443">product at cathode</th> </tr> </thead> <tbody> <tr> <td data-bbox="297 443 396 527">A</td> <td data-bbox="396 443 781 527">bromine</td> <td data-bbox="781 443 1170 527">hydrogen</td> </tr> <tr> <td data-bbox="297 527 396 611">B</td> <td data-bbox="396 527 781 611">bromine</td> <td data-bbox="781 527 1170 611">potassium</td> </tr> <tr> <td data-bbox="297 611 396 695">C</td> <td data-bbox="396 611 781 695">hydrogen</td> <td data-bbox="781 611 1170 695">bromine</td> </tr> <tr> <td data-bbox="297 695 396 730">D</td> <td data-bbox="396 695 781 730">potassium</td> <td data-bbox="781 695 1170 730">bromine</td> </tr> </tbody> </table>		product at anode	product at cathode	A	bromine	hydrogen	B	bromine	potassium	C	hydrogen	bromine	D	potassium	bromine
	product at anode	product at cathode														
A	bromine	hydrogen														
B	bromine	potassium														
C	hydrogen	bromine														
D	potassium	bromine														
MS-5	B															