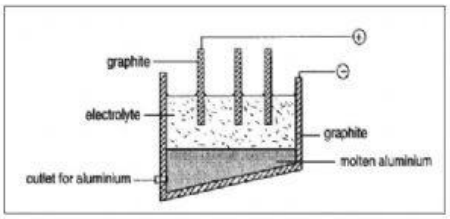
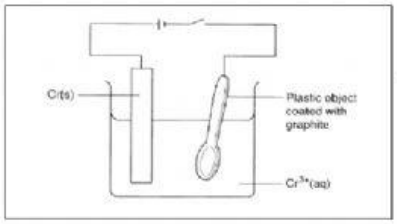
Instruction: Fill in the blanks for the materials of electrodes in each applications



Electrode	Material	Equation
Anode		$2O^{2-} \rightarrow O_2 + 4e$
Cathode		$Al^{3+} + 3e \rightarrow Al$
Electrolyte	Al_2O_3 (Bauxite)	



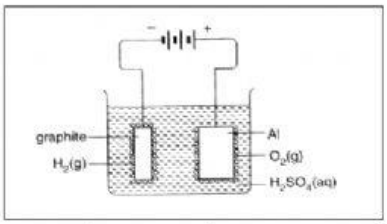
Electrode	Material	Equation
Anode		$Cr \rightarrow Cr^{3+} + 3e$
Cathode		$Cr^{3+} + 3e \rightarrow Cr$
Electrolyte	Chromium(III) salt	

Extraction of aluminium

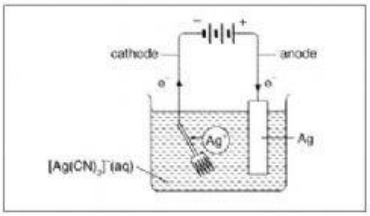
Electroplating ← Application of electrolysis → Anodisation

Treatment of effluent

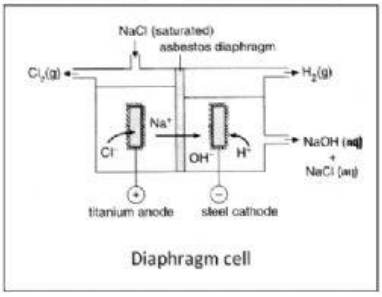
Manufacture of chlorine



Electrode	Material	Equation
Anode		$2H_2O \rightarrow O_2 + 4H^+ + 4e$ $4Al + 3O_2 \rightarrow 2Al_2O_3$
Cathode		$2H_2O + 2e \rightarrow H_2 + 2OH^-$
Electrolyte	H_2SO_4	



Electrode	Material	Equation
Anode		$Ag \rightarrow Ag^+ + e$
Cathode		$Ag^+ + e \rightarrow Ag$
Electrolyte	$[Ag(CN)_2]^-$	



Diaphragm cell

Electrode	Material	Equation
Anode		$2Cl^- \rightarrow Cl_2 + 2e$
Cathode		$2H_2O + 2e \rightarrow H_2 + 2OH^-$
Electrolyte	Brine, NaCl(aq)	

LIVEWORKSHEETS