Electrochemistry

IGCSE Chemistry · Vocabulary in context

Word	Example
electrolysis /ɪlekˈtrɒləsɪs/	**Electrolysis** of brine makes chlorine.
decomposition /ˌdiːkɒmpəˈzɪʃn/	**Decomposition** breaks a big problem into small parts.
ionic compound /aɪˈɒnɪk ˈkɒmpaʊnd/	Sodium chloride is an **ionic compound**.
molten /ˈməʊltn/	**Molten** salt conducts electricity because its ions can move.
aqueous /ˈeɪkwɪəs/	Salt dissolved in water gives an **aqueous** solution.
electric current /ɪˈlektrɪk ˈkʌrənt/	An **electric current** flows when the switch is closed.
ions /ˈaɪɒnz/	Water molecules surround the **ions** as they dissolve.
electrolytic cell /ɪˌlektrəˈlɪtɪk sel/	An **electrolytic cell** uses electricity to drive a chemical change.
electrodes /ɪˈlektrəʊdz/	Electricity enters and leaves the solution through the **electrodes**.
electrolyte /ɪˈlektrəlaɪt/	Salt water is an **electrolyte**: ions carry the current.
anode /ˈænəʊd/	The **anode** is the positive electrode.
cathode /ˈkæθəʊd/	Electrons leave the hot **cathode**.
inert /ɪˈnɜːt/	Graphite electrodes are **inert**: they do not react.

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platinum /ˈplætɪnəm/	**Platinum** is used for electrodes because it does not react.
graphite /ˈgræfaɪt/	Pencils contain **graphite**.
metals /ˈmetlz/	**Metals** form positive ions.
hydrogen /ˈhaɪdrədʒn/	**Hydrogen** gas burns with a squeaky pop.
non-metals /nɒn ˈmetlz/	**Non-metals** often form negative ions.
dilute /daɪˈluːt/	**Dilute** acid has only a little acid in a lot of water.
concentrated /ˈkɒnsəntreɪtɪd/	**Concentrated** acid has a lot of acid in a little water.
lead /liːd/	**Lead** forms at the cathode when molten lead bromide is electrolysed.
bromine /ˈbrəʊmaɪn/	**Bromine** is a red-brown liquid.
chlorine /ˈklɔːriːn/	**Chlorine** gas bleaches damp litmus paper.
sulfuric acid /sʌlˈfjʊərɪk ˈæsɪd/	**Sulfuric acid** is a strong acid.
oxygen /ˈɒksɪdʒn/	Things burn faster in pure **oxygen**.
discharged /dɪsˈtʃɑːdʒd/	Ions are **discharged** at the electrodes and become atoms.
halide /ˈhælaɪd/	Lead bromide is a **halide**: a compound of a halogen.
electrons /ɪˈlektrɒnz/	**Electrons** move around the nucleus.

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external circuit /ekˈstɜːnl ˈsɜːkɪt/	Electrons flow through the wires of the **external circuit**.
reduction /rɪˈdʌkʃn/	**Reduction** is the gain of electrons.
oxidation /ˌɒksɪˈdeɪʃn/	**Oxidation** is the loss of electrons.
half-equation /hɑːf ɪˈkweɪʒn/	A **half-equation** shows what happens at one electrode.
copper /ˈkɒpə/	Pure **copper** forms on the cathode.
electroplating /ɪˌlektrəʊˈpleɪtɪŋ/	**Electroplating** coats an object with a metal using electricity.
corrosion /kəˈrəʊʒn/	**Corrosion** slowly eats away the metal.
fuel cell /ˈfjuːəl sel/	A **fuel cell** produces electricity while fuel and oxidant are supplied.
pollutants /pəˈluːtənts/	Car exhaust releases **pollutants** into the air.

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