

4. Electrochemistry

Starter Quiz · 课前小测

IGCSE Chemistry

Name: _____ Score: _____

1. Electrolysis is the breaking down of a compound using:

- ☐ an electric current
- ☐ heat only
- ☐ light
- ☐ a catalyst

2. In OIL RIG, oxidation is:

- ☐ loss of electrons
- ☐ gain of electrons
- ☐ loss of protons
- ☐ gain of neutrons

3. Electrolysing copper sulfate with copper electrodes is used to:

- ☐ purify copper
- ☐ make oxygen
- ☐ electroplate silver
- ☐ produce sodium

4. The only product of a hydrogen–oxygen fuel cell is:

- ☐ water
- ☐ carbon dioxide
- ☐ methane
- ☐ oxygen

5. Positive ions move towards the:

- ☐ cathode (negative electrode)
- ☐ anode (positive electrode)
- ☐ electrolyte
- ☐ power supply

6. Why is electroplating used? (Select all that apply.)

- ☐ to improve appearance
- ☐ to protect from corrosion

☐ to make a cheap object look expensive

☐ to melt the object

Tick every correct option.

7. Negative ions move towards the positive anode.

☐ True ☐ False

8. Reduction is the gain of electrons.

☐ True ☐ False

9. In electroplating, the plating metal forms the anode.

☐ True ☐ False

10. A drawback of fuel cells is that hydrogen is difficult to store and transport.

☐ True ☐ False

IGCSE Chemistry

1. **an electric current**

An electric current decomposes the electrolyte.

2. **loss of electrons**

Oxidation Is Loss of electrons.

3. **purify copper**

The impure copper anode dissolves; pure copper deposits on the cathode.

4. **water**

Hydrogen + oxygen $\rightarrow$ water.

5. **cathode (negative electrode)**

Opposite charges attract: positive ions $\rightarrow$ negative cathode.

6. **to improve appearance; to protect from corrosion; to make a cheap object look expensive**

Electroplating coats, not melts.

7. **True**

Anions are attracted to the anode.

8. **True**

Reduction Is Gain (RIG).

9. **True**

The anode supplies the metal that coats the cathode.

10. **True**

Hydrogen storage is a major challenge.