

Chemistry - 11th Class Chemistry Short Questions Chapter 10 Preparation

Q1. What is Anodized Aluminum?

Ans 1: When a thin layer of oxide is formed over the surface of aluminium metal it is called anodized aluminium. Anodized aluminium is prepared by making it anode in an electrolyte cell containing sulphuric acid or chromic acid, which coats a thin layer of oxide on it. Aluminium oxide layer resists the attack by corrosive agents.

Q2. A porous plate or a salt bridge is not required in lead storage cell. Give reason?

Ans 1: A porous plate or salt bridge is used in those cells where two different electrolytes are used and are required to keep separate. In case of lead storage cell, only dil. H_2SO_4 is used as an electrolyte. Hence, no separation is required by porous plate or salt bridge.

Q3. Describe the relative chemical reactivity of metals?

Ans 1: Metals react by forming their positive ions. If the value of standard reduction potential is greater, the tendency to form positive ions is smaller and therefore less reactivity. It means the elements with greater reduction potential are least reactive where as the elements with smaller reduction potential are more reactive.

Q4. Write the importance of standard hydrogen electrode?

Ans 1: Standard hydrogen electrode (SHE) is used to determine the electrode potential of other electrode. It is used as reference electrode and its value is 0.0 volt. From SHE we derive electrochemical series.

Q5. What is the difference between metallic conduction and electrolytic conduction?

Ans 1: Electrolytic Conduction: The conduction of electricity carried out by ions present in a fused or in an aqueous solution of an electrolyte is called electrolytic conduction.
Metallic Conduction: The conduction of electricity through a metal due to free electrons is called metallic conduction.

Q6. What is the difference between primary and secondary cells?

Ans 1: Primary Cells: The cells which cannot be recharged are called primary cells. e.g. Dry cells.
Secondary Cells: The cells which can be recharged are called secondary cells. e.g. Fuel cells.

Q7. Differentiate between electrolytic and voltaic cells?

Ans 1: Electrolytic cell:

1. A cell in which electrical energy is converted into chemical energy.
2. Non-spontaneous redox reaction takes place here.

3. Example: Down's cell

Ans 2: Voltaic cell:

1. A cell in which chemical energy is converted into electrical energy.
2. Spontaneous redox reaction takes place here.
3. Example: Daniel cell

Q8. Zn can displace hydrogen from dilute acid solution but copper cannot. Justify the statement?

Ans 1:

Q9. Differentiate between a cell and battery?

Ans 1: Cell: The arrangement in which electrical energy is converted into chemical energy or chemical energy is converted into electrical energy is called cell.

Battery: The combination of two or more cells is called battery.

Q10. Give four rules for assigning of oxidation number?

Ans 1:

1. The oxidation number of free elements is zero. For example H, Mg, Na. as charge on the ion.
 2. Oxidation number of hydrogen in all its compounds is +1 except metal hydride where it is -1
 3. In neutral molecules, the algebraic sum of oxidation number of all the elements is zero.
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