Aim 3100031431

1)

Electrode potential

The electromotive force (Emf) between two electrodes in a cell. It's the potential difference between the charged metallic rods and salt solution. Electrode potential is measured using a standard hydrogen electrode (SHE) as the reference electrode.

Standard electrode potential

The potential of an electrode when the concentration of each species in the electrode reaction is unity, and the reaction is carried out at 298 K. The standard electrode potential of the SHE is zero volts.

Electrochemical series

The arrangement of elements in increasing or decreasing order of their standard electrode potential values. It's also known as the Activity Series.

2)

The electrochemical series is a list of chemical elements in order of their standard electrode

potentials. Here are two applications of the electrochemical series:

Identifying oxidizing and reducing agents: Substances at the top of the series are good reducing agents, while substances at the bottom are good oxidizing agents.

Predicting displacement reactions: metals higher in the series will replace metals lower in the series.

Other applications of the electrochemical series include:

-Predicting when and where a reaction will occur
-Predicting the direction that electrons will travel
-Calculating the E.m.f. of a cell
-Predicting the feasibility of a redox reaction
-Predicting the liberation of hydrogen gas by metals from acid
-Comparing the relativity of metals