

- Explain the meaning of the terms ΔG , n , and E_{cell} in the equation $\Delta G = -nFE_{\text{cell}}$.

Marks
3

ΔG is the change in free energy due to the completion of a redox reaction. It is the maximum amount of energy that can be extracted from the reaction.

n is the number of electrons exchanged.

E_{cell} is the cell potential as defined in the Nernst equation:

$$E = E^{\circ} - (RT/nF) \times \ln Q$$