

Nernst Equation

$$\Delta G = \Delta G^\circ + RT \ln Q$$

The diagram illustrates the decomposition of the standard free energy change (ΔG°) into non-standard (ΔG) and standard ($\Delta G^\circ_{\text{cell}}$) components. A red arrow points from the term $-nF\xi_{\text{cell}}$ to the term ΔG . A blue arrow points from the term $-nF\xi^\circ_{\text{cell}}$ to the term ΔG° .

$$\xi_{\text{cell}} = \xi_{\text{cell}}^{\circ} - \frac{RT}{nF} \ln Q$$