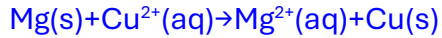


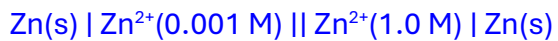
1. Reaction:



Write the correct cell notation for this galvanic cell using 1.0 M concentrations for both ions.

Nernst Equation

2. Cell Setup:



- Standard cell potential $E^\circ = 0$ (same electrodes)
- $n = 2$
- Temperature = 25°C

Calculate the potential of the cell.



Half-Cell Data:

- $E^\circ_{\text{Cu}^{2+}/\text{Cu}} = +0.34\text{V}$
- $E^\circ_{\text{Zn}^{2+}/\text{Zn}} = -0.76\text{V}$
- $[\text{Cu}^{2+}] = 0.01 \text{ M}$, $[\text{Zn}^{2+}] = 1.0 \text{ M}$
- $n = 2$

Calculate the actual cell potential at 25°C .