Marks
6

- A galvanic cell consists of a Cr^{3+}/Cr half-cell with unknown $[Cr^{3+}]$ and a Ni^{2+}/Ni half-cell with $[Ni^{2+}] = 1.20$ M. The electromotive force of the cell at 25 °C was measured to be 0.55 V. What is the concentration of Cr^{3+} in the Cr^{3+}/Cr half-cell?

Answer:

Calculate the equilibrium constant of the reaction at 25 °C.

Answer:

Calculate the standard Gibbs free energy of the reaction at 25 °C.

Answer:

Express the overall reaction in the shorthand voltaic cell notation.