

cathodic transfer coefficient, α_c

For a reaction with a single rate-determining step

$$\alpha_c/\nu = -(RT/nF)(\partial \ln |I_c| / \partial E)_{T, p, c_i \dots}$$

where α_c is the cathodic transfer coefficient (number), R is the gas constant, T is the thermodynamic temperature, and ν is the stoichiometric number giving the number of identical activated complexes formed and destroyed in the completion of the overall reaction as formulated with the transfer of n electrons.

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