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# inverted region (for electron transfer)

In plots relating rate constants to charges in standard Gibbs energy ($\Delta G^\circ$) for electron transfer a region may occur in which the rate constants decrease as the exergonicity of the reaction increases. This region is often referred to as the inverted region and its presence is predicted by the theory developed for outer sphere electron transfer for the case $-\Delta G^\circ > \lambda$ in the Marcus equation, $\lambda$ being the reorganization energy. Note the similarity to the energy gap law for radiationless conversion of an excited state.
***See:*** normal region

***Source:***
PAC, 1996, *68*, 2223 *(Glossary of terms used in photochemistry (IUPAC Recommendations 1996))* on page 2249

 