reorganization energy

in electron transfer

Gibbs energy dissipated when a system that has undergone 'vertical' electron transfer (i.e., electron transfer obeying the Franck–Condon principle) relaxes to the equilibrium state for its new charge distribution. Commonly the total reorganization energy (λ) is written as the sum of an inner contribution (λ_{in}) and an outer contribution (λ_{out}) attributed to nuclear reorganizations of the redox partners and their environment (solvent), respectively.

Note:

Approximations have been proposed to calculate the value of λ_{out} taking into account the 'relative permittivity' of the solvent.

Source:

PAC, 2007, *79*, 293 *(Glossary of terms used in photochemistry, 3rd edition (IUPAC Recommendations 2006))* on page 414