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# medium effect

The medium effect on ionic species B due to transfer from solvent $S_1$ to solvent $S_2$ (number) is defined by

$$R\,T\,\ln\gamma_{S_1}^{S_2}(\mathrm{B}) = \mu_{\mathrm{B}}^{\mathrm{o},S_2} - \mu_{\mathrm{B}}^{\mathrm{o},S_1}$$

where $R$ is the gas constant, $T$ is the thermodynamic temperature and $\mu_{\mathrm{B}}^{\mathrm{o},S_i}$ is the standard chemical potential of B in solvent $S_i$ (where $i = 1$ or 2), the reference states being the same in both solvents. $\gamma_{S_1}^{S_2}(\mathrm{B})$ is not an exactly measurable quantity.

***Source:***
PAC, 1974, *37*, 499 *(Electrochemical nomenclature)* on page 508

 