

chemical potential, μ_B

The chemical potential of a substance B in a mixture of substances B, C ... is related to the Gibbs energy G of the mixture by:

$$\mu_B = (\partial G / \partial n_B)_{T, p, n_C \neq B}$$

where T is the thermodynamic temperature, p is the pressure and n_B , n_C , ... are the amounts of substance of B, C,

For a pure substance B, the chemical potential μ_B^* is given by:

$$\mu_B^* = G^* / n_B = G_m^*$$

where G_m^* is the molar Gibbs energy, and where the superscript * attached to a symbol denotes the property of the pure substance. The superscript \ominus or $^{\circ}$ attached to a symbol may be used to denote a *standard thermodynamic quantity*.

See also *standard chemical potential*.

1994, 66, 535; G.B. 49; 1996, 68, 966