

## surface excess isotherm

The function relating, at constant temperature and pressure,  $\Gamma_i^{(n)}$ ,  $\Gamma_i^{(1)}$  or  $\Gamma_i^{(v)}$ , or the respective specific quantities  $\frac{n^l \Delta x_i^l}{m}$ ,  $\frac{A_s \Gamma_i^{(1)}}{m}$  or  $\frac{V^l \Delta c_i^l}{m}$  to the mole fraction (or concentration) of component  $i$  in the equilibrium liquid phase. With solutions of more than two components such isotherms are unequivocal functions only when the ratios of the mole fractions (or concentrations) of all other components except  $i$  are kept constant. ( $A_s$  is the area of interface,  $\Gamma_i^{(n)}$ ,  $\Gamma_i^{(1)}$ ,  $\Gamma_i^{(v)}$  are relative adsorptions,  $\Delta x_i^l$  is the change in mole fraction of  $i$  resulting from bringing a specified mass  $m$  of solid into contact with a specified amount of solution  $n^l$ ,  $\Delta c_i^l$  is the change in concentration resulting from bringing a specified mass of solid into contact with a specified amount of solution of volume  $V^l$ .)

### Source:

PAC, 1972, 31, 577 (*Manual of Symbols and Terminology for Physicochemical Quantities and Units, Appendix II: Definitions, Terminology and Symbols in Colloid and Surface Chemistry*) on page 593