

surface excess, n^σ

For an *interface*, the adsorption or surface excess of a given component is defined as the difference between the amount of component actually present in the system, and that which would be present (in a reference system) if the bulk concentration in the adjoining phases were maintained up to a chosen geometrical dividing surface (*Gibbs dividing surface*).

For a solid/liquid interface in which no component of the liquid phase penetrates into the solid, the surface excess (or adsorption) of component i is defined as:

$$n_i^\sigma = n_i - V^l c_i^l$$

where n_i is the total amount of i in the system, V^l is the volume of an arbitrarily chosen amount of bulk liquid (in the framework of the so-called algebraic method) and c_i^l is its bulk concentration in the liquid.

See *Gibbs adsorption*.

1986, 58, 969; G.B. 63