

separation factor, $\alpha_{A,B}$ *in liquid-liquid distribution*

The ratio of the respective distribution ratios of two extractable solutes measured under the same conditions.

$$\alpha_{A,B} = \frac{D_A}{D_B}$$

Notes:

1. By convention the solutes designated as A and B in the above are chosen so as to make $\alpha > 1$.
2. The term separation coefficient is not recommended.
3. The terms selectivity coefficient and selectivity ratio are not synonymous and should not be used.

Source:

PAC, 1993, 65, 2373 (*Nomenclature for liquid-liquid distribution (solvent extraction) (IUPAC Recommendations 1993)*) on page 2386

Orange Book, p. 107

See also:

Orange Book, p. 85