separation factor, α

in column chromatography

The relative retention value calculated for two adjacent peaks ($V'_{R2} > V'_{R1}$):

$$\alpha = \frac{V'_{R2}}{V'_{R1}} = \frac{V_{N2}}{V_{N1}} = \frac{t'_{R2}}{t'_{R1}} = \frac{k_2}{k_1}$$

By definition, the value of the separation factor is always greater than unity. The separation factor is also identical to the ratio of the corresponding distribution constants. The separation factor is sometimes also called the 'selectivity'. The use of this expression is discouraged.

Source:
PAC, 1993, *65*, 819 *(Nomenclature for chromatography (IUPAC Recommendations 1993))* on page 844