**mass distribution ratio, \( k_{\text{MEKC}} \)**

*in micellar electrokinetic chromatography*

Defined as:

\[
k_{\text{MEKC}} = \frac{n_{\text{mc}}}{n_{\text{aq}}} = K \cdot \frac{V_{\text{mc}}}{V_{\text{aq}}}
\]

where \( n_{\text{mc}} \) and \( n_{\text{aq}} \) are the chemical amounts of the analyte in the micellar and aqueous phases, respectively, \( K \) is the distribution constant and \( V_{\text{mc}} \) and \( V_{\text{aq}} \) are the corresponding volumes of the phases.

Notes:

1. In the case of an electrically neutral analyte, \( k_{\text{MEKC}} \) can be calculated directly from the migration times:

\[
k_{\text{MEKC}} = \frac{t_{\text{m}} - t_{\text{eo}}}{t_{\text{eo}} (1 - t_{\text{m}}/t_{\text{mc}})}
\]

2. \( k_{\text{MEKC}} \) should not be confused with the retention factor (in column chromatography) \( k \). However, \( k_{\text{MEKC}} \) is analogous to the mass distribution ratio (in chromatography).

**Source:**