

**fraction extracted,  $E$** 

The fraction of the total quantity of a substance extracted (usually by the solvent) under specified conditions, i.e.  $E_A = Q_A/Q'_A$  where  $Q_A$  is the mass of A extracted and  $Q'_A$  is the total mass of A present at the start.

Notes:

- i.  $E$  may be expressed as a percentage, % $E$ .
- ii. The term extractability is qualitative and should not be used as a synonym for fraction extracted.
- iii. If the aqueous phase is extracted with  $n$  successive portions of solvent, the phase volume ratio (solvent/feed) being  $r$  each time, the fraction extracted is given by:

$$E_n = 1 - (rD + 1)^{-n}$$

If  $n = r = 1$ ,  $E_1 = D/(1 + D)$  this expression is a concept of value in chromatography theory.

- iv. The fraction extracted is also known as the recovery factor, especially for a multistage process.

1993, 65, 2384