

mass-average velocity

Also contains definition of: molar average velocity *in electrolytes*

in electrolytes

Mass-average velocity:

$$v_b = \rho^{-1} \sum C_i M_i v_i$$

Cf. molar average velocity:

$$v_m = c_t^{-1} \sum c_i v_i$$

with $c_t = \sum c_i$ where M_i = molar mass, c_i = total concentration (mol m^{-3}), ρ = density of the solution (kg m^{-3}).

Source:

PAC, 1981, 53, 1827 (*Nomenclature for transport phenomena in electrolytic systems*) on page 1831