velocity

_in mass transport_

The flux density \( N_B \) is related to the velocity by the equation

\[
N_B = c_B v_B
\]

The vector \( v_B \) is the macroscopic average velocity at which the species B moves (which is to be distinguished from the random molecular velocity); \( c_B \) is the concentration of species B (mol m\(^{-3}\)). Note that the velocity is defined with respect to a frame of reference.

_Source:

PAC, 1981, 53, 1827 (*Nomenclature for transport phenomena in electrolytic systems*) on page 1830