

NOMENCLATURE:

a	Length of the impeller blade, mm/m
A	Cross sectional area, m^2/mm^2
b	height of the impeller blade, mm/m
b_w	baffle width, mm/m
C_0^+	Concentration of a tracer fed into a reactor after a step-wise change, mole/l
C_0^-	Initial concentration of a tracer in a reactor, mole/l
$C(t)$	Concentration of a tracer at an outlet from a reactor at the moment t , mole/l
D	Tank diameter, mm/m
d	Inlet tube diameter, mm/m
d_m	Impeller diameter, mm/m
H	Height of liquid tank, mm/m
N	Impeller speed, rotation per min/sec
Q	Impeller pumping capacity, cm^3/min
Re	Tank Reynolds number
Re_m	Impeller reynolds number
Re_{in}	Inlet Reynolds number
t	Time, min/sec
u	Velocity, m/sec
V	Tank volume, l/m^3
V^*	Volumetric flow rate, $(l/hr)/(m^3/sec)$
<i>Greek Symbols</i>	
τ	Time constant
μ	Viscosity, cP
ρ	Density, Kg/m^3
θ	Dimensionless time
σ	Variance of a residence time distribution