$$k'_{ET} = \sum_{j=1}^{\#dye} \left(\frac{R_0}{R_j}\right)^6 \qquad (1)$$

$$k_{ET} = \tau_D^{-1} \qquad (2)$$

$$p = 1 - e^{(k_{ET}+k'_{ET})\Delta_t} \qquad (3)$$

$$N = \frac{D}{\epsilon} \qquad (4)$$

$$N\Delta_t = \tau_D \qquad (5)$$