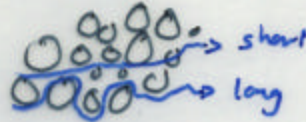
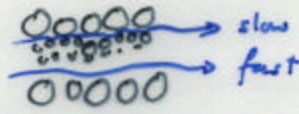
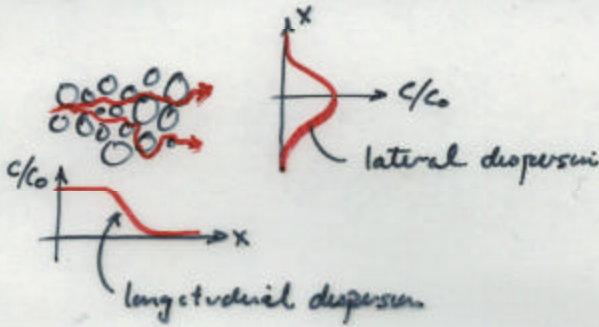


5.3 MECHANICAL DISPERSION

- CAUSES
1. Pore size
 2. Path length
 3. Taylor dispersion



Average behavior \rightarrow dispersion coefficients, α



Coefficient of longitudinal dispersion = α_L (L)

Coefficient of transverse (lateral) dispersion = α_T (L)

Units of length, L.

Pre-multiplied by advective velocity to give a dispersion coefficient as $D = \alpha v_i$

$$L \frac{L}{T} = L^2/T$$

$$D_L = \alpha_L v_i$$

$$D_T = \alpha_T v_i$$