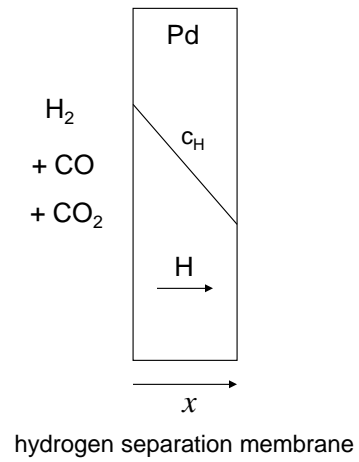
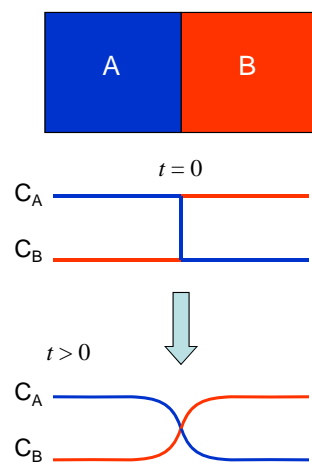


Diffusional Processes

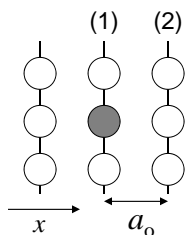


Diffusional Processes



Atomistics of diffusion

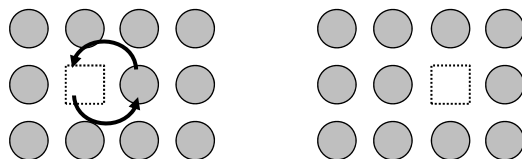
Random walk



planes of atoms
 tracer species with a concentration gradient
 $c = \text{concentration } \#/cm^3$
 $n = \#/cm^2$ # density in the plane
 $n = c \cdot a_0$
 $n_1 = \text{on plane (1)}$
 $n_2 = \text{on plane (2)}$

Mechanisms of Diffusion

Vacancy



net transport
 vacancy to right
 atom to left

Interstitial (self or impurity)

