



**MATERIALS SCIENCE  
& ENGINEERING**  
TEXAS A&M UNIVERSITY

# Introduction to Materials Science & Engineering

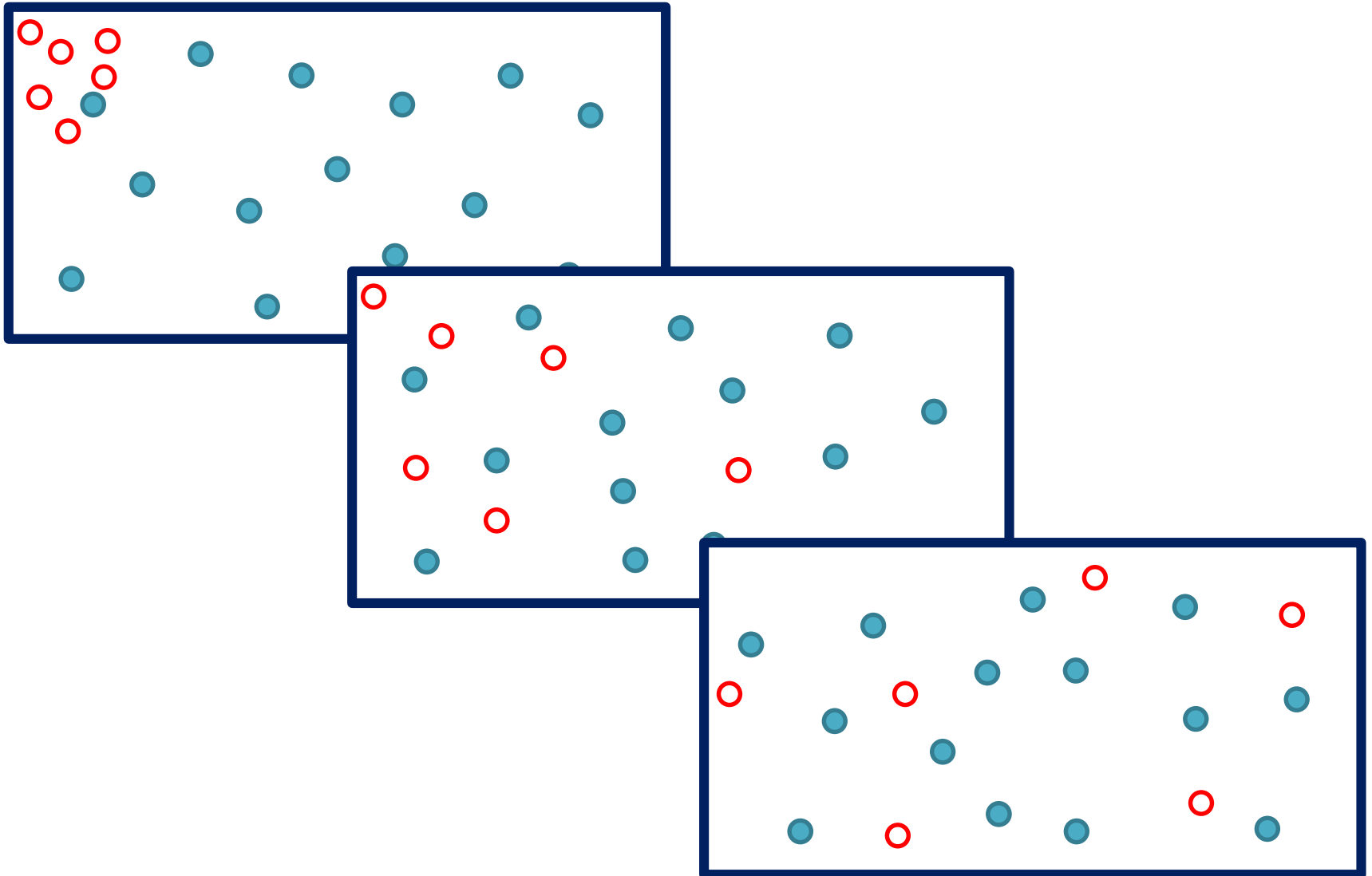
## Diffusion Steady State vs Transient

**Dr. Patrick Shamberger**

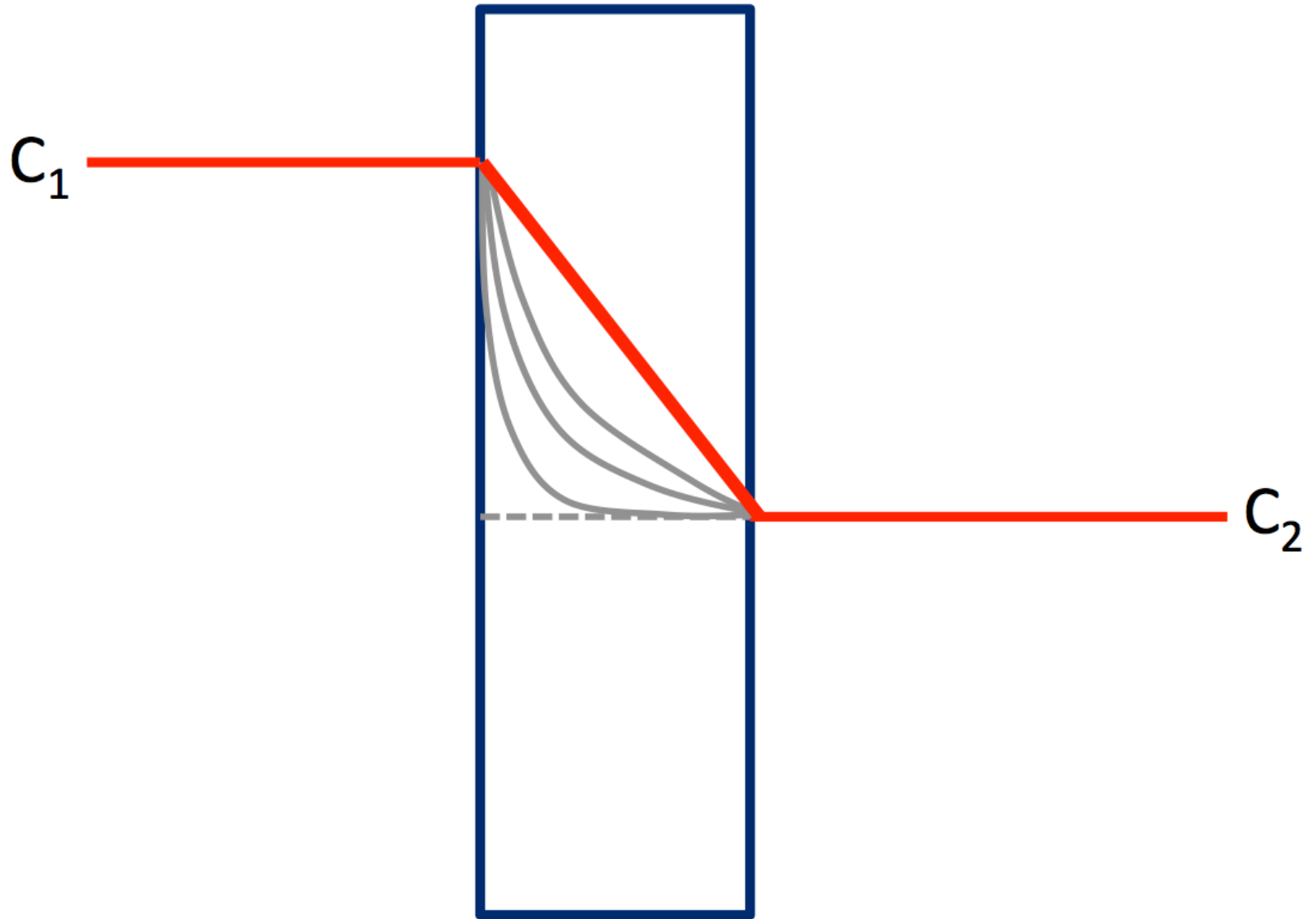
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# Diffusion: Steady-state vs. Transient



# Diffusion through a membrane



# Summary:

- Steady-state vs. transient
- Atoms are *ALWAYS* moving
- Under certain conditions, concentration profiles, fluxes remain constant.