

RARE EVENTS

crystallization &
self-assembly

catalysis

reactions

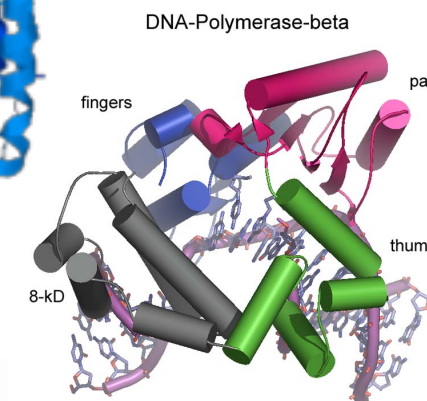
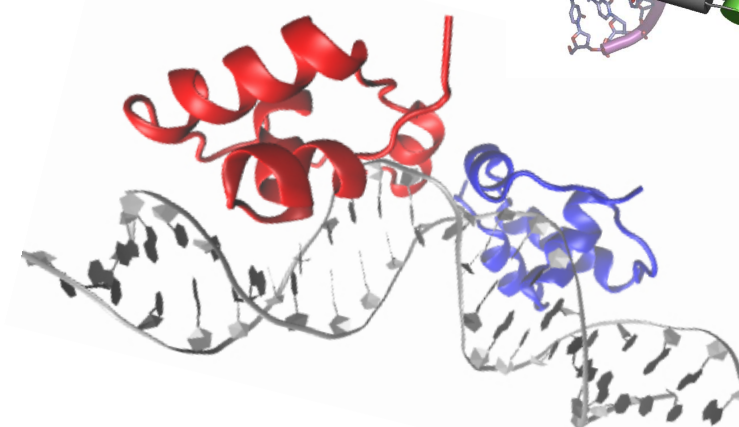
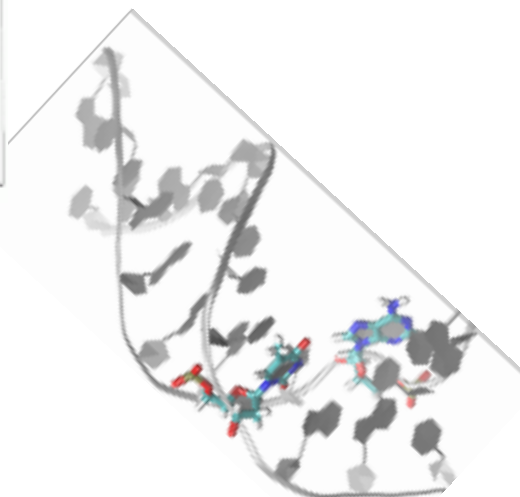
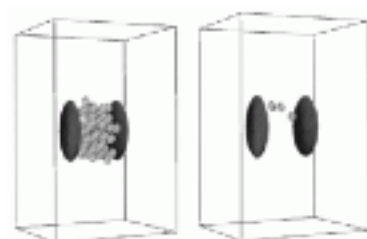
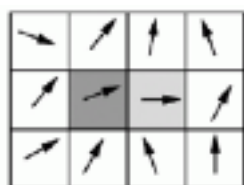
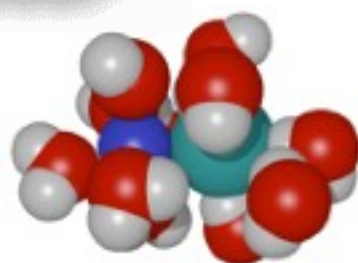
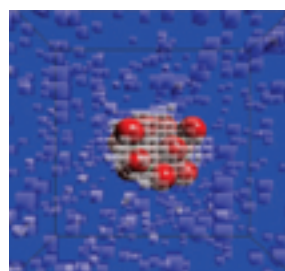
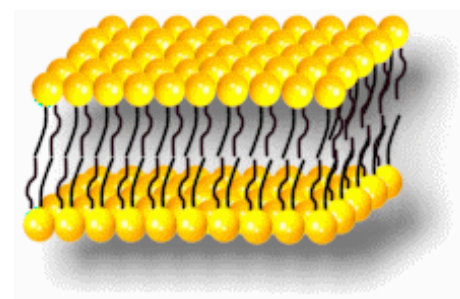
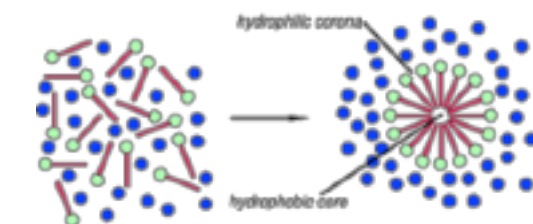
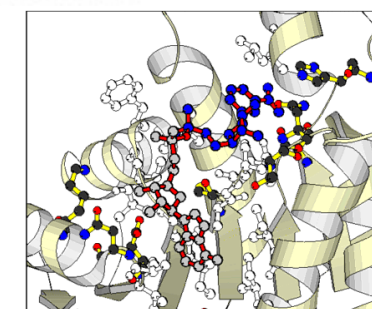
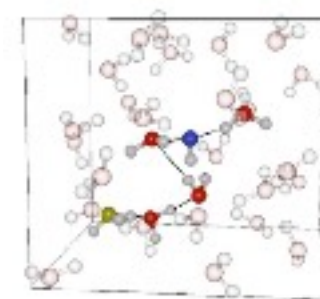
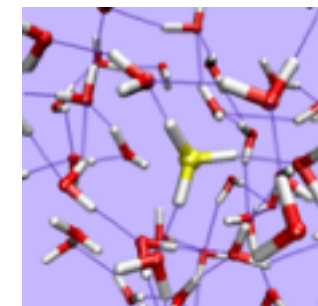
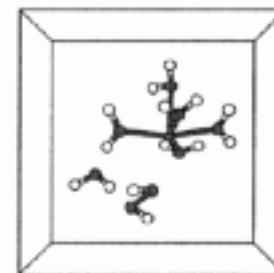
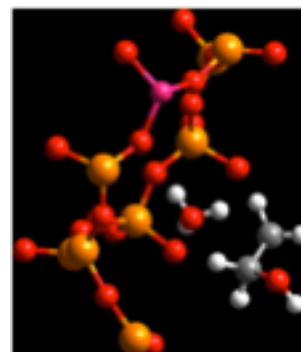
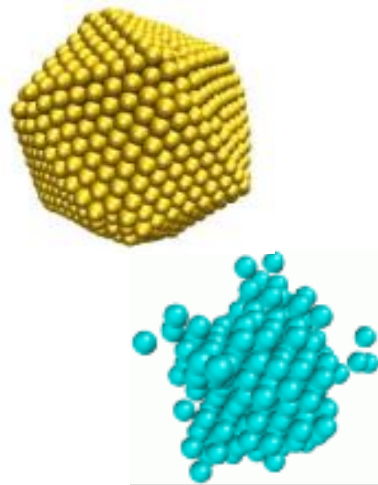
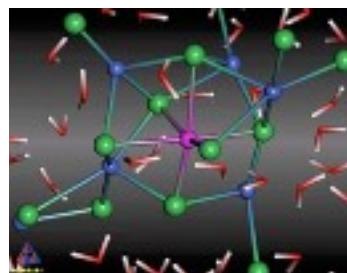
enzyme
reactions

complex
fluids

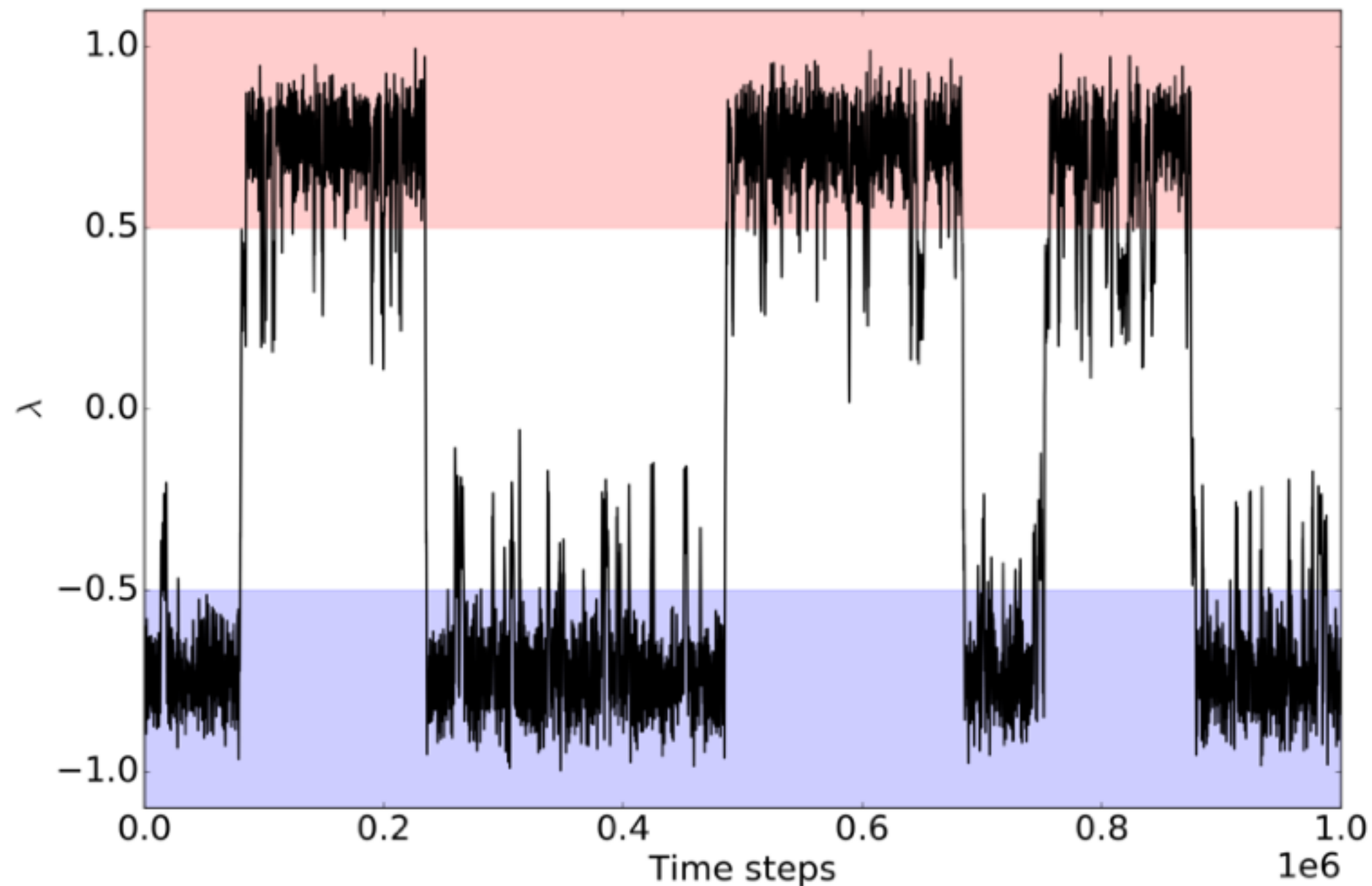
solvent effects

conformational changes

folding & binding



What makes an event “rare”?



Separation of time scales:
fundamental time scale vs. frequency of event