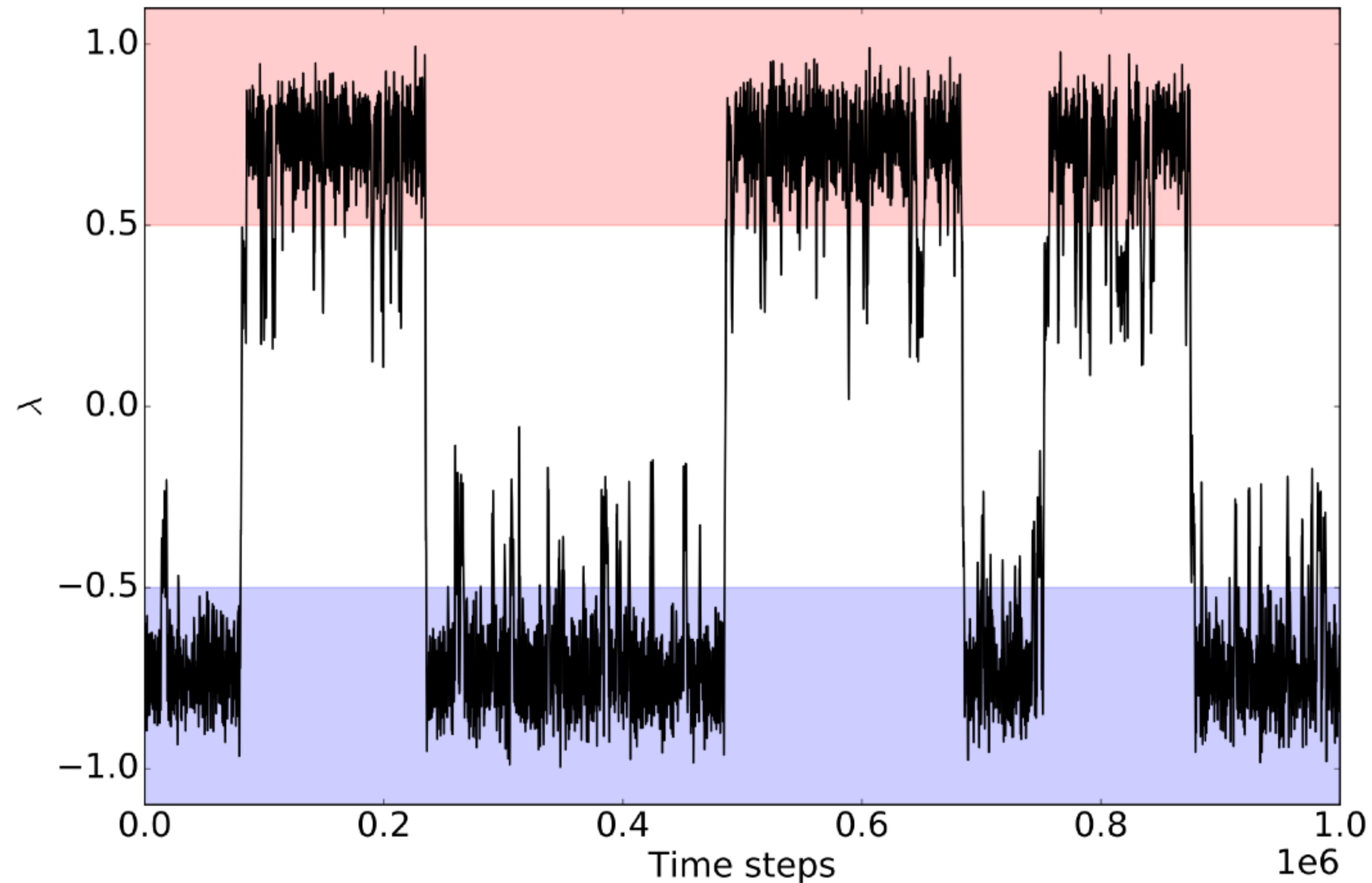
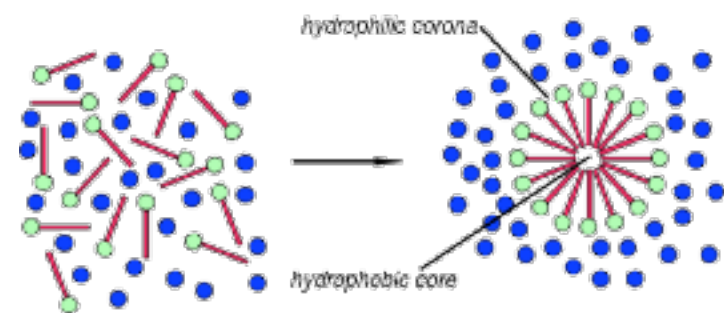
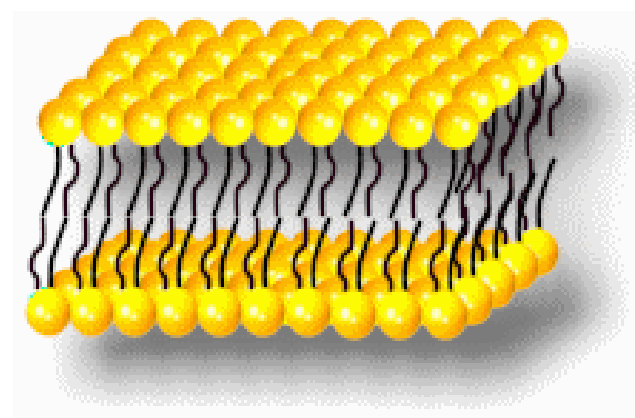
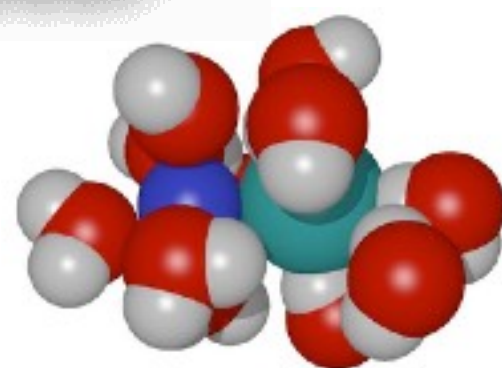
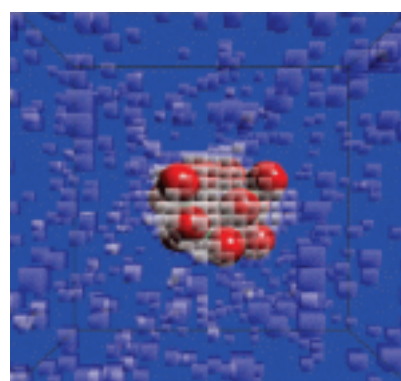
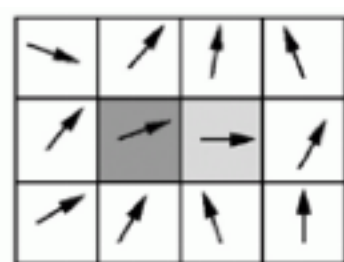
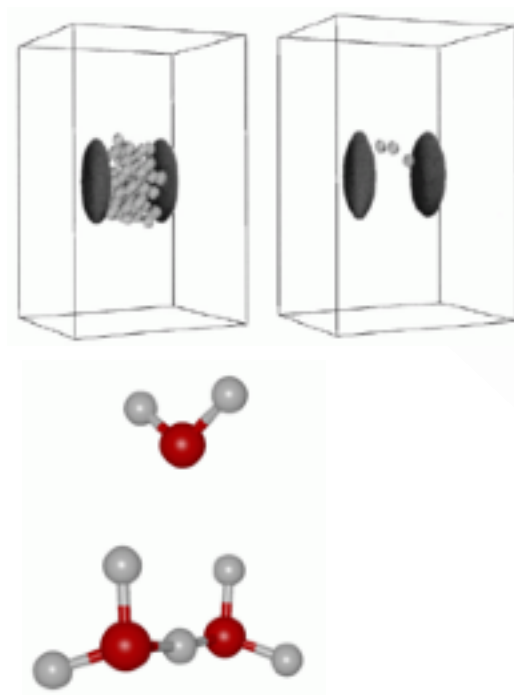
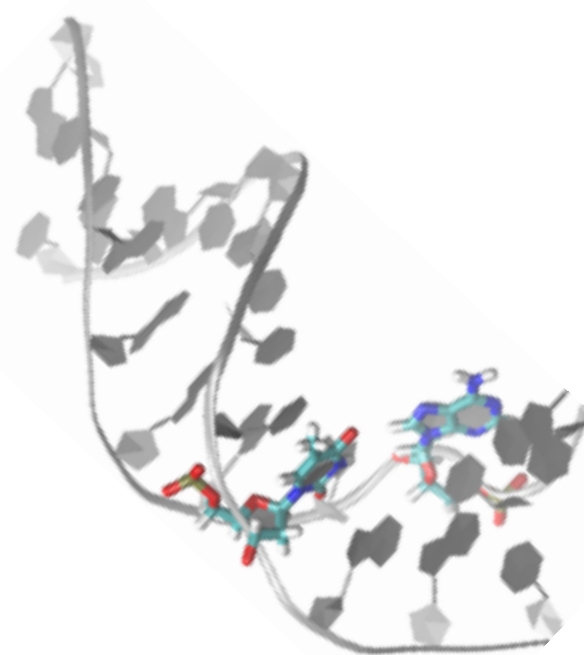
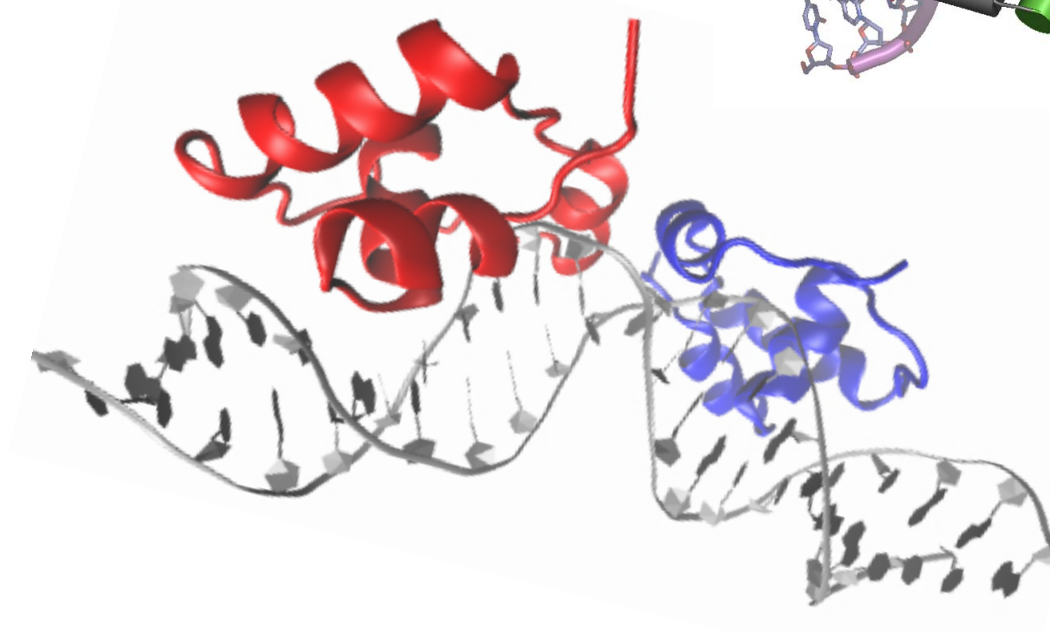
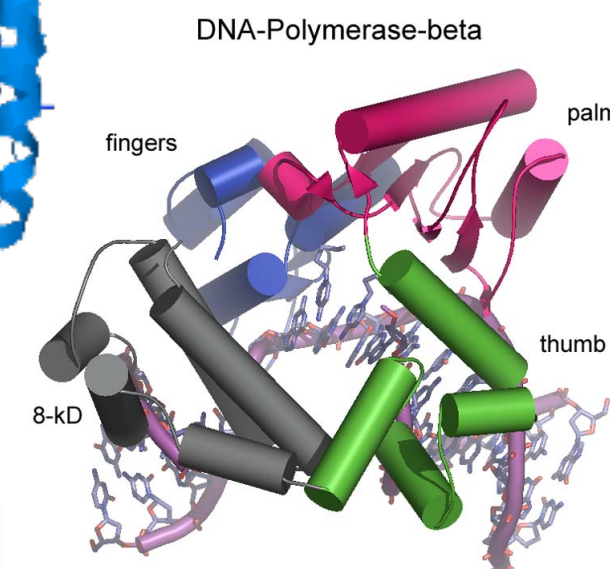
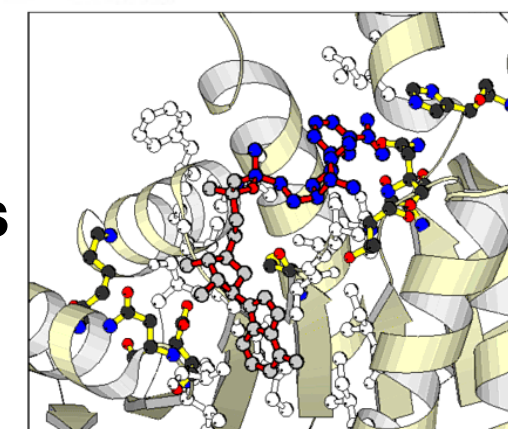
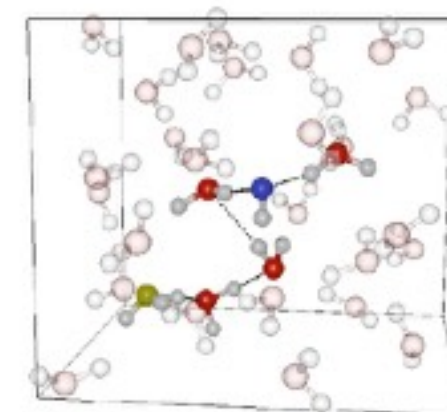
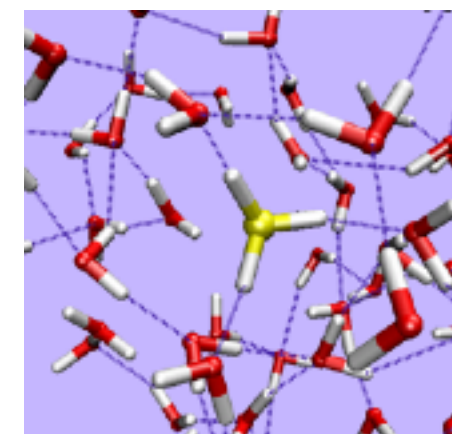
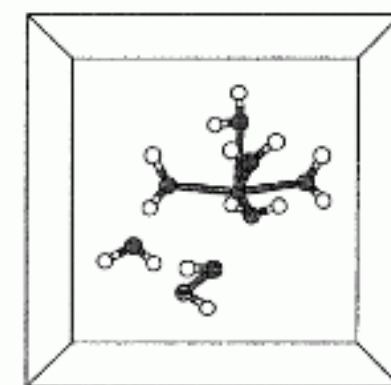
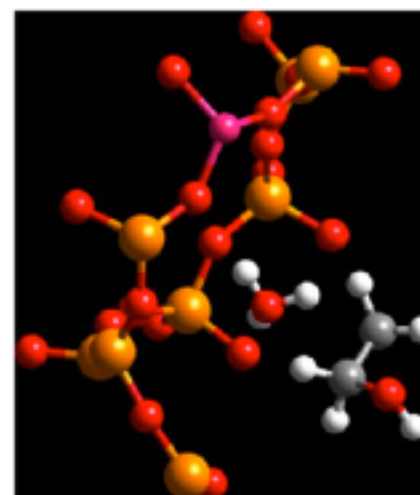
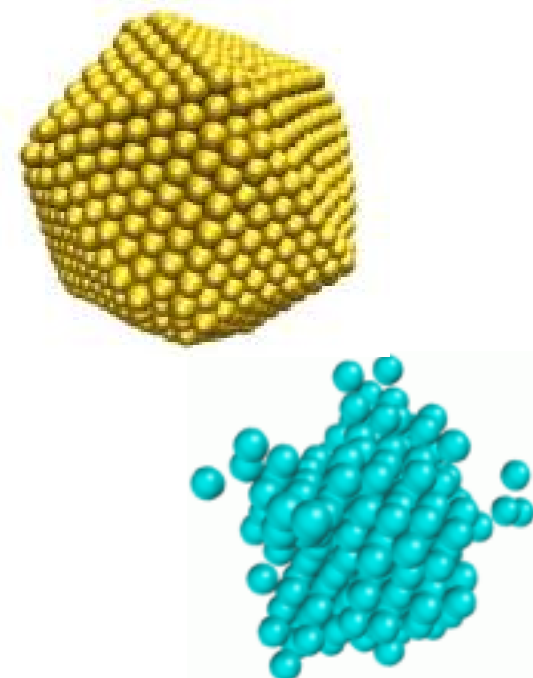
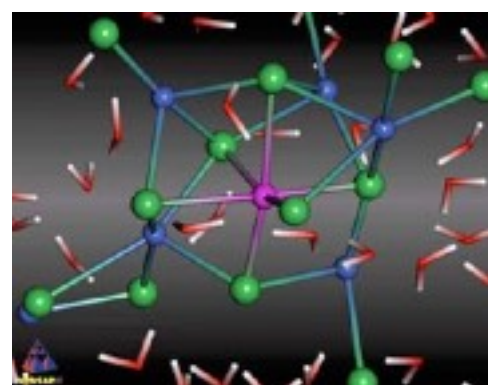


What makes an event “rare”?



Biomolecular Systems: $\sim 1/\text{ms}$ is common
Requires 10^{12} time steps of ~ 1 fs



RARE EVENTS

crystallization &
self-assembly

catalysis

reactions

enzyme reactions

folding & binding

conformational changes

solvent effects

complex
fluids