

Transient NOE

- Instead of Irradiating with Low Power for a Long Time to Reach a Steady State: A Single Fast Blow (Selective 180 Degree Pulse)
- Selected Peak Is Perturbed (Heated Up) and This Perturbation Propagates *Over Time* to Nearby Protons
 - During This “Mixing Time” the Selected Proton Cools Down Towards Room Temperature
 - Nearby Protons Heat Up, Reach a Maximum Temperature and then Cool Down
- In Reality the NOE Actually Cools Down Nearby Protons
- Read-Out: Recording a Spectrum Gives Enhanced Peaks for Nearby Protons, Greatly Reduced Peak for Selected Proton