

Steady-State NOE Difference

- Old Technique for 1D NOE Measurement
- Two Spectra Are Recorded:
 - With Irradiation of One ^1H Peak During Relaxation Delay
 - With Irradiation on Noise Region (Control Spectrum)
- The Control Spectrum is Subtracted From the Irradiated Spectrum:
 - Irradiated Spectrum: Irradiated Peak is Gone; Peaks Due to Nearby Protons are Slightly Enhanced
 - Difference Spectrum: Large Negative Peak for Irradiated Proton; Very Weak Positive Peaks for Nearby Protons
- The RF Irradiation is Applied at a Specific Chemical Shift and is Kept On for 1-2 Seconds at Very Low Power During the Relaxation Delay