Test protocol

Proton sensitivity in organic solvent

Use sample 1 – ethylbenzene in chloroform-d, non-spinning

Pulse sequence: single pulse followed by acquisition

Acquisition parameters

Transmitter frequency: middle of H-1 spectrum (around 4 ppm)

Spectral width: 10 ppm

Number of points in FID: 32k (real)

Number of scans: 1

Number of dummy scans: 0

Relaxation delay: 60 s

Receiver gain: optimize

Processing parameters

Window function: exponential, line broadening 1 Hz, i.e. exp(-πt)

Number of points in spectrum: 32k (real)

Phase correction: automatic or manual, adjust to pure absorption

Base line correction: yes

Evaluation

Evaluate signal-to-noise ratio for the ethylene signals (between 2 and 3 ppm), choose 2 ppm noise area from the region between 3 and 7 ppm. Use the formula

Where *Imax* is the maximal signal intensity and *npp* is the peak-to-peak value in the noise region.