

Calibration of 90^0 pulses.

Experiment setup

- * Record the spectrum according to [“Short Instructions for basic operation of the Bruker NMR spectrometer”](#).
- * Phase the spectrum according to [“Avance User’s Guide” pp.23](#). After the spectrum is correctly phased, save the phase correction by clicking [“return”](#) and [“save & return”](#).
- * Multiply the default [“p1”](#) pulse width by 2 and take the spectrum again.
- * Type [“efp”](#). Adjust the duration of [“p1”](#) until NMR signal disappeared. Keep in mind that because of RF inhomogeneity and offset effects there will be always some residue signal. Look into negative and positive amplitudes of the peaks and they should be about the same.
- * Divide the [“p1”](#) by half. This is your 90^0 . Accuracy achieved by this method is enough to get the excellent performance in the 1D and 2D experiments. While adjusting the [“p1”](#) pulse width do not exceed more than 3 times of default value, e.g. if default [“p1”](#) is 5 do not exceed more than 15. Setting too long [“p1”](#) may result in damaging amplifiers and probe. If you think you need to use longer [“p1”](#) than 3 times inform lab manager about the problem.