NOESY

Experiment setup

-Tune the proton channel of the probe
-Calibrate the 90^0 pulse according to the "Calibration of 90^0 pulse" menu
-Record the proton spectrum according to the "Short instruction of basic operation of Bruker NMR spectrometer." Limit the "sw" of the spectrum to the important peaks. This will save you experiment time.
-Measure the spin-lattice relaxation time of all important peaks according to "Measurement of spin-lattice relaxation time T_1"
-Type "rpar" and load the "noesytp.BBI" parameter file
-Go to the "EDA" menu. Input the exact "sw" value as the same for both dimensions. Insert "O1p"
-Input "p1" according to 90^0 pulse calibration.
-Set up "D1" =1.27 T_1 according to the slowest relaxing peak in the spectrum.
-Set up the mixing time "D8" examining T_1 of all important peaks. Place "D8" in between slowest and fastest relaxing peaks.
-Take the "rg" value from the 1D experiment, multiply it by factor of 1.5.Input the value.
-The number of experiments in the second dimension depends on the required resolution and the experiment time you would like to take. In most cases, 128 spectra is enough. If your sample has a large "sw," 256 spectra might be necessary.
- The number of scans "ns" needs to be 8n. Very often, 8 scans are enough. More scans might be required if the sample has a small concentration.
-Check the experiment time "exptime"
-type "zg" to start acquisition
-type "xfb" for Fourier transformation
The spectrum can be checked anytime during the experiment. The Experiment needs not go to completion if one is satisfied with the spectrum.
-Adjust contour levels "+/-" if negative peaks are not visible
After "xfb" is finished, you will need to phase the spectrum according to the "Avance User's Guide" pp. 154.
-Enter "abs1" and "abs2". The "syma" might be used for symetrization.
-To add projections to the spectrum, type "edg" and click "EDPROJ1" to the F1 parameters. Edit as follows:
PF1DU -disk partition one of (/w, /x or /m)
PF1USER- username
PF1NAME – filename
PF1EXP- experiment #
PF1PROC – processed data #
Repeat the procedure for the F2 dimension.
-Save the optimum display parameters by clicking on "DefPlot"
- "View" and plot the spectrum