

Attention DRX-400 Users!

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Tune the probe (ONLY SUPERUSERS)!!! Shim the magnet!!! Do all the normal steps to acquire and process a reference ^1H 1D spectrum!

Don't spin the sample for 2D experiments!!!

Use the following parameter files for 2D experiments:

gCOSY: rpar COSYGPSW all

Type “**getprosol**” on the command line. Adjust **sw** and **o1** or **o1p** for f_2 and f_1 to desired values based on ^1H spectrum. **d1** should be at least 1.5 sec.

TOCSY: rpar DIPSI2GPPH19 all

Type “**getprosol**” on the command line. Adjust **sw** and **o1** or **o1p** for f_2 and f_1 to desired values based on ^1H spectrum. Enter accurate ^1H 90 and 180 degree pulse widths for **p1** and **p2** if you have determined it. **d1** should be at least 1.5 sec.

HMQC: rpar HMQCGP all

Type “**getprosol**” on the command line. Adjust **sw** and **o1** or **o1p** for f_2 (1H dimension) to desired values based on ^1H spectrum. Enter accurate ^1H 90 degree pulse for **p1** if you have determined it.

HMBC: rpar HMBCGP all

Type “**getprosol**” on the command line. Adjust **sw** and **o1** or **o1p** for f_2 (1H dimension) to desired values based on ^1H spectrum. Enter accurate ^1H 90 degree pulse for **p1** if you have determined it.

NOESY: rpar NOESYGPPH19SW all

Type “**getprosol**” on the command line. Adjust **sw** and **o1** or **o1p** for f_2 (1H dimension) to desired values based on ^1H spectrum. Enter accurate ^1H 90 and 180 degree pulse widths for **p1** and **p2** if you have determined them. Run **rga**. Change the rg determined by rga to $\frac{1}{4}$ its value. Now you can start the experiment.

How to determine the 90 degree pulse

Make sure that probe is tuned for the nucleus and that **getprosol** has been performed. From **eda** window change the pulse sequence to its 90 degree version (for example, **zg** instead of **zg30**). Change **ds** to 0 and **ns** to 1. Type “**ii**”. Type “**rga**”. Type “**zg**”. Type “**efp**” and phase the spectrum. This spectrum corresponds to an approximate 90 pulse. Change **p1** to 4 times its previous value so that the pulse should be an approximate 360 pulse. Type “**zg**”. Type “**efp**” and look at the peaks. If the peaks are more down than up, increase the **p1** value by small amounts until the peaks are equally up and down. If the peaks are more up than down, decrease **p1** value until the peaks are equally up and down. The value you found in the previous step is the 360 degree pulse. The correct 90 degree pulse is the $\frac{1}{4}$ of this value.