

Solvent suppression.

Take a proton spectrum in experiment 1.

Go to the top menu Edit and drag to Move FID. Move the FID from experiment 1 to experiment 2, and join experiment 2. In the Process tab click Transform to get a copy of the spectrum in experiment 1.

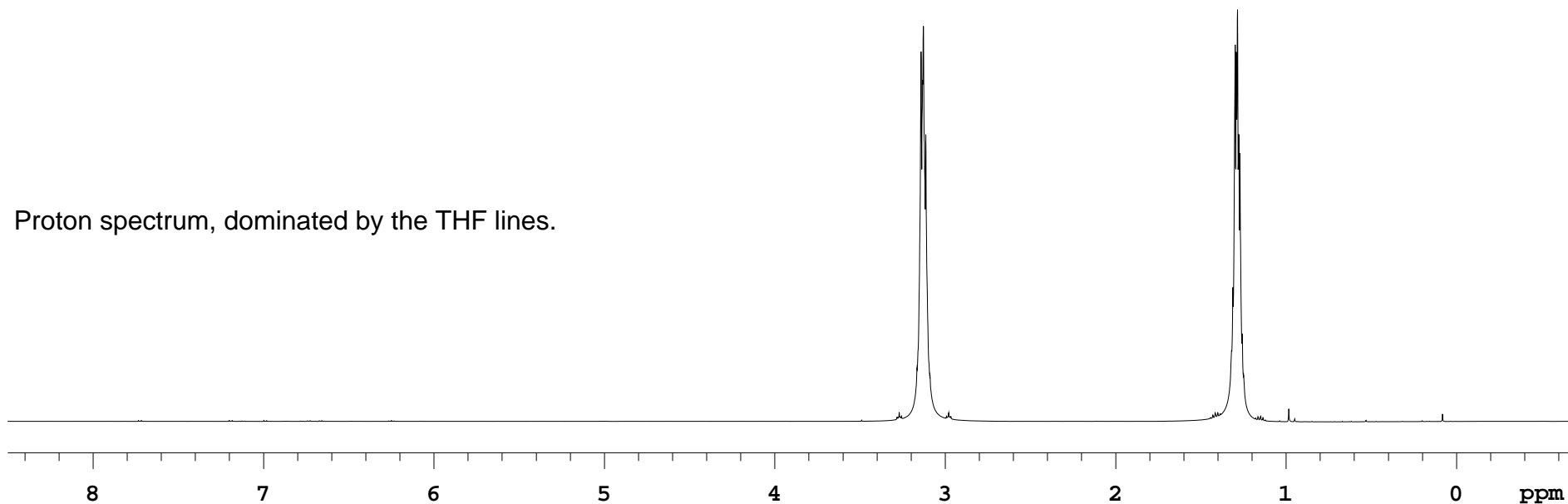
In the top menu Experiments drag to Convert current parameters to do. - Solvent Suppression – Select peaks – WET. WET uses shaped pulses to selectively apply a 90° pulse on the solvent signals which are then dephased by gradients.

In the Acquire – Default tab put two cursors around one of the signals you want to suppress, then click Select. Repeat for all of the signals to be suppressed. Note the list of frequencies at the top left corner of the graphics display window.

Check the autogain on, then Acquire. The receiver gain needs to be readjusted for the WET spectrum, in which the intensity of the signals will be much weaker. In the spectrum in the figure, the two signals of THF were suppressed using WET, to the level of the signal around 0 ppm, which is ca. 1:100. This was a reaction mixture with no deuterated solvent, and the sample was run unlocked. Shimming was done on the FID.

Because the WET experiment uses gradients, distortions of the line shape can happen. In such case, try PRESAT, which uses selective irradiation of the solvent lines. With PRESAT one must be wary of the sample heating.

Proton spectrum, dominated by the THF lines.



WET spectrum. The solvent peaks were suppressed to ca. 1:100.

