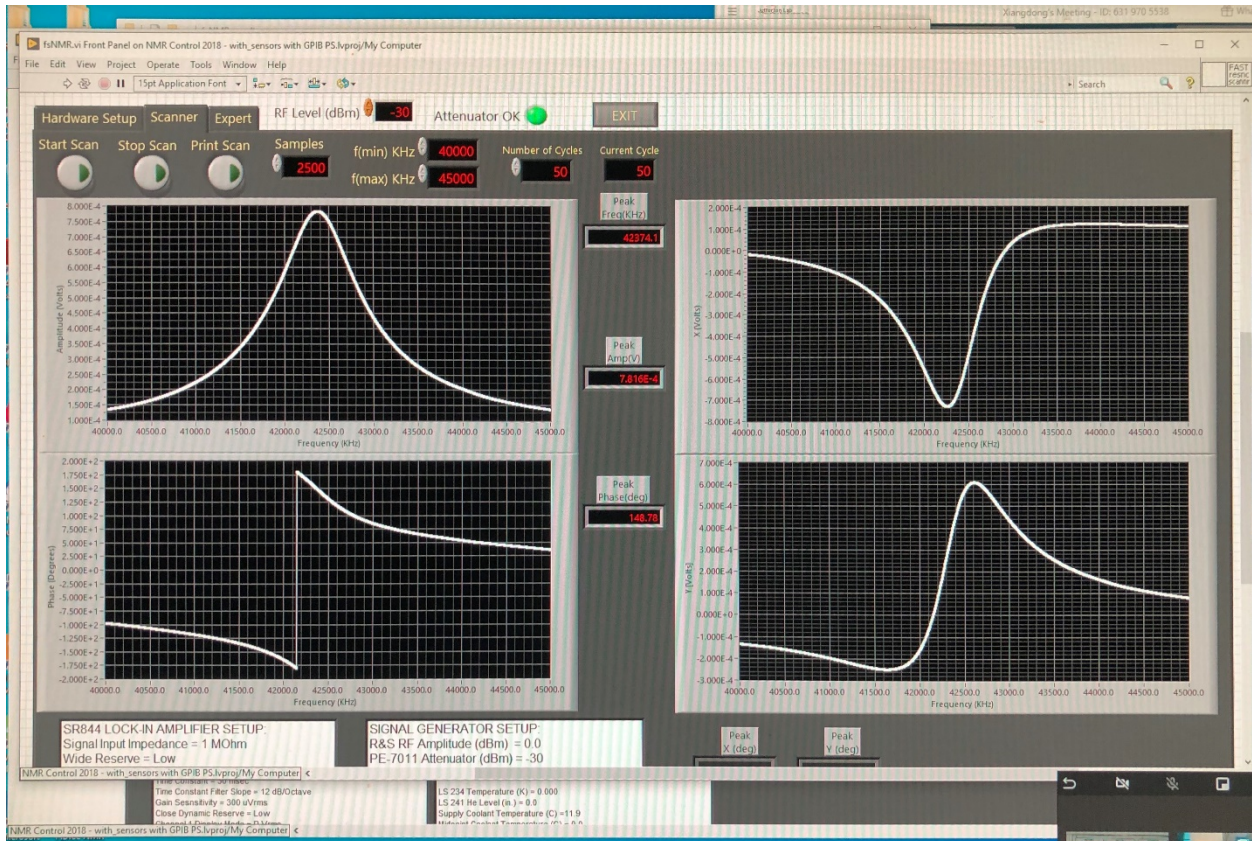


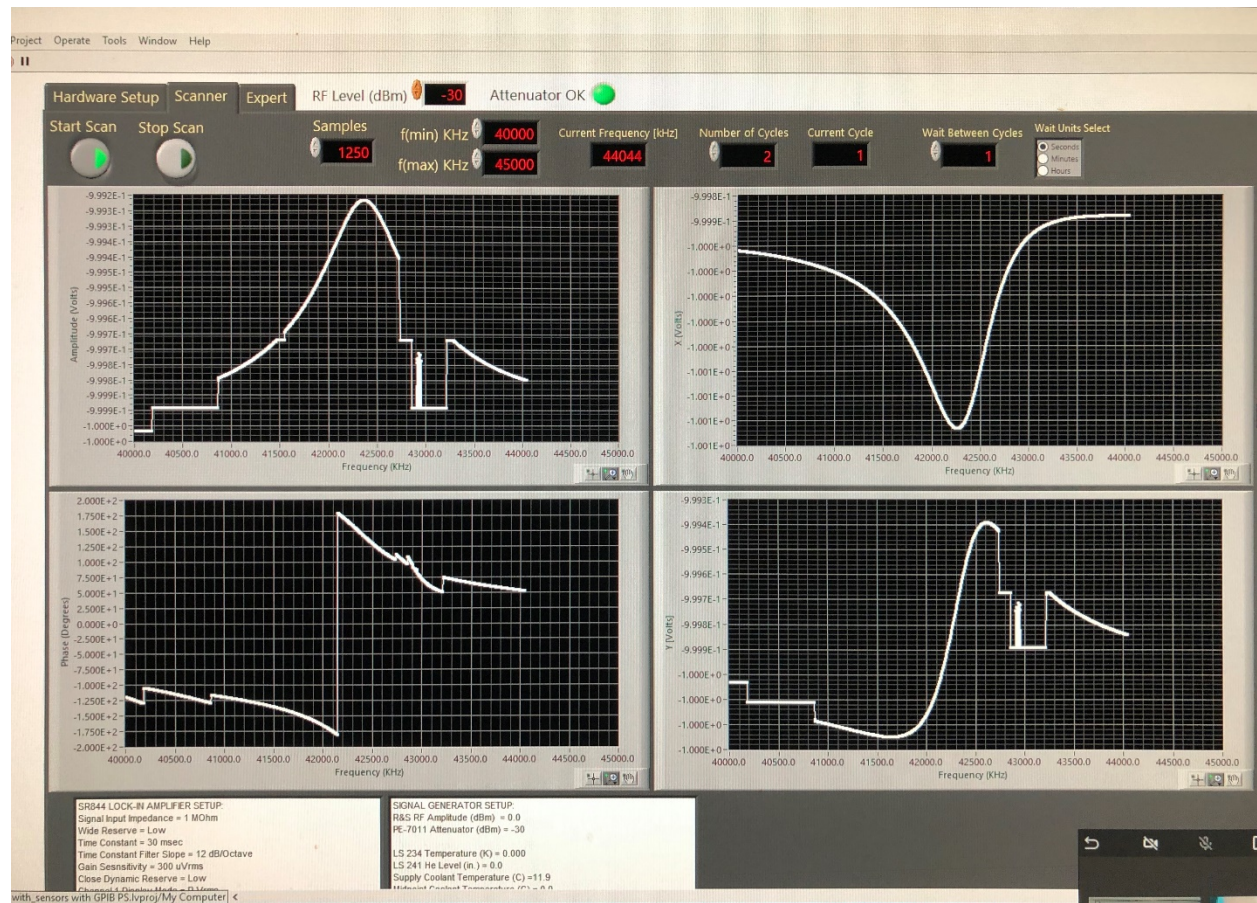
Test results for Stage 2 fsNMR

Both stage 1 and 2 fsNMR VIs were tested with warm PD-II this week. The results are shown below in the following 4 screenshots. The details are explained in the captions. The results of stage 1 VI were used for stage 2 measurements.

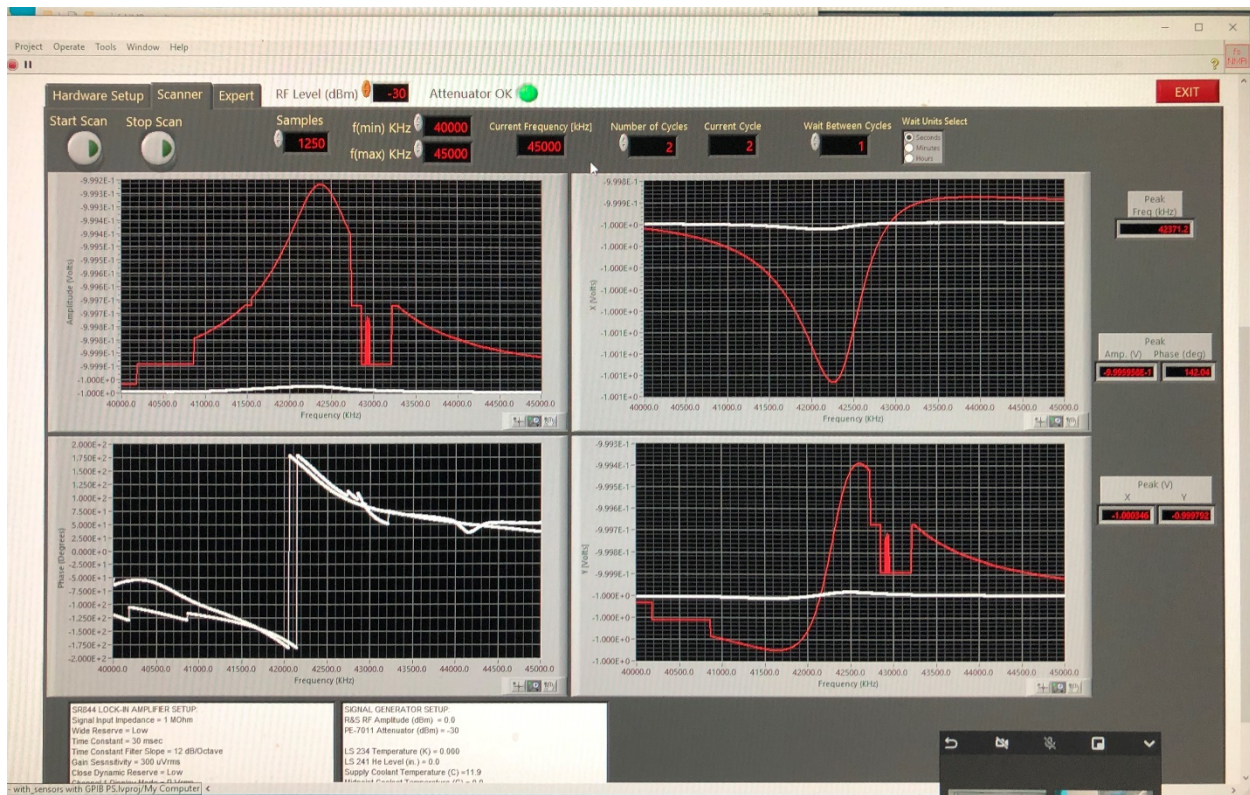
I think I need a quick instruction (or short list of steps) to correctly pick the background. The problem maybe simply because I used the wrong background file.



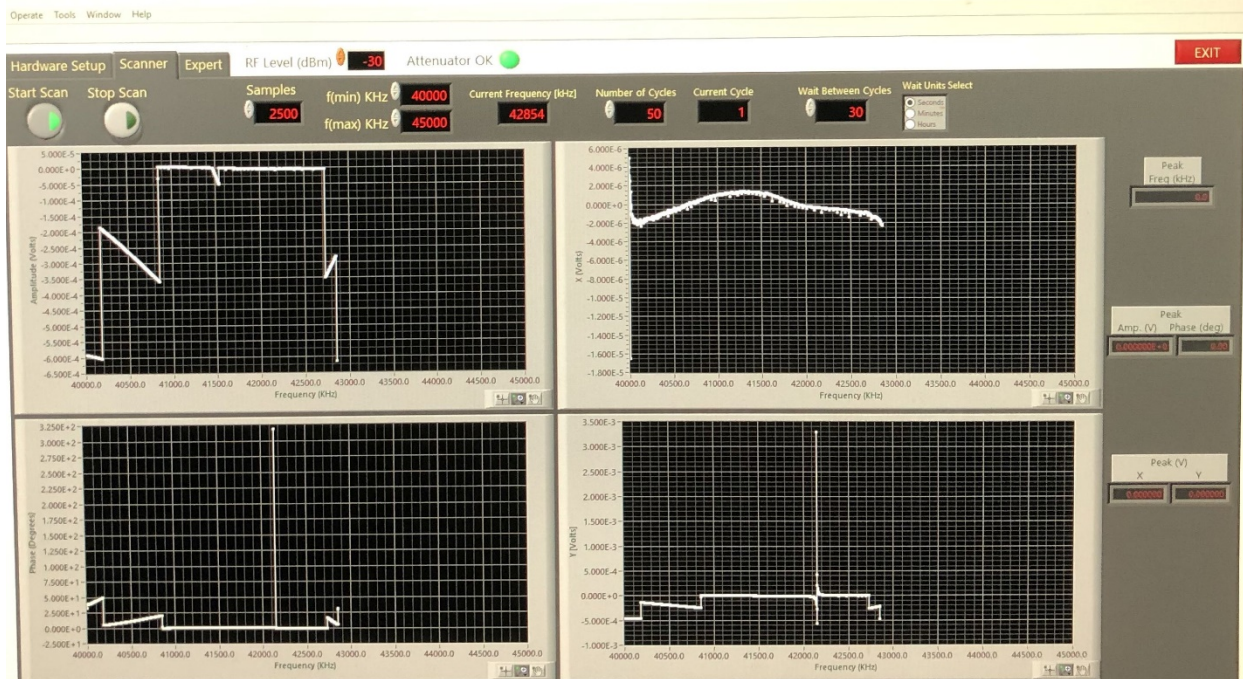
Picture 1. The results of Stage 1 VI. It looks good.



Picture 2. The first scan of Stage 2 VI. Three of the four traces were chopped and the all amplitudes were very close to 1, which indicated that they were relative values, not absolute. Many overload lights and unlock light on the lock-in amplifier were blinking red, while sensitivity range jumped back and forth in several steps.



Picture 3. The second scan of Stage 2 VI. The second scan shapes looked normal but the amplitudes, except the phase, were much smaller than the 1st one. The calculation seemed different for those scans, and they were not absolute values (~ 1.00). The history plot of phase was not RED. Would you please check the calculations and correct them as needed? It seems like the RF power used in the 1st and 2nd scans were different.



Picture 4. Another 1st scan of Stage 2 VI. This picture showed another 1st scan for a later run, with image of lock-in amplifier. The overload indicators were all lid up, while the saturated values were read and displayed.