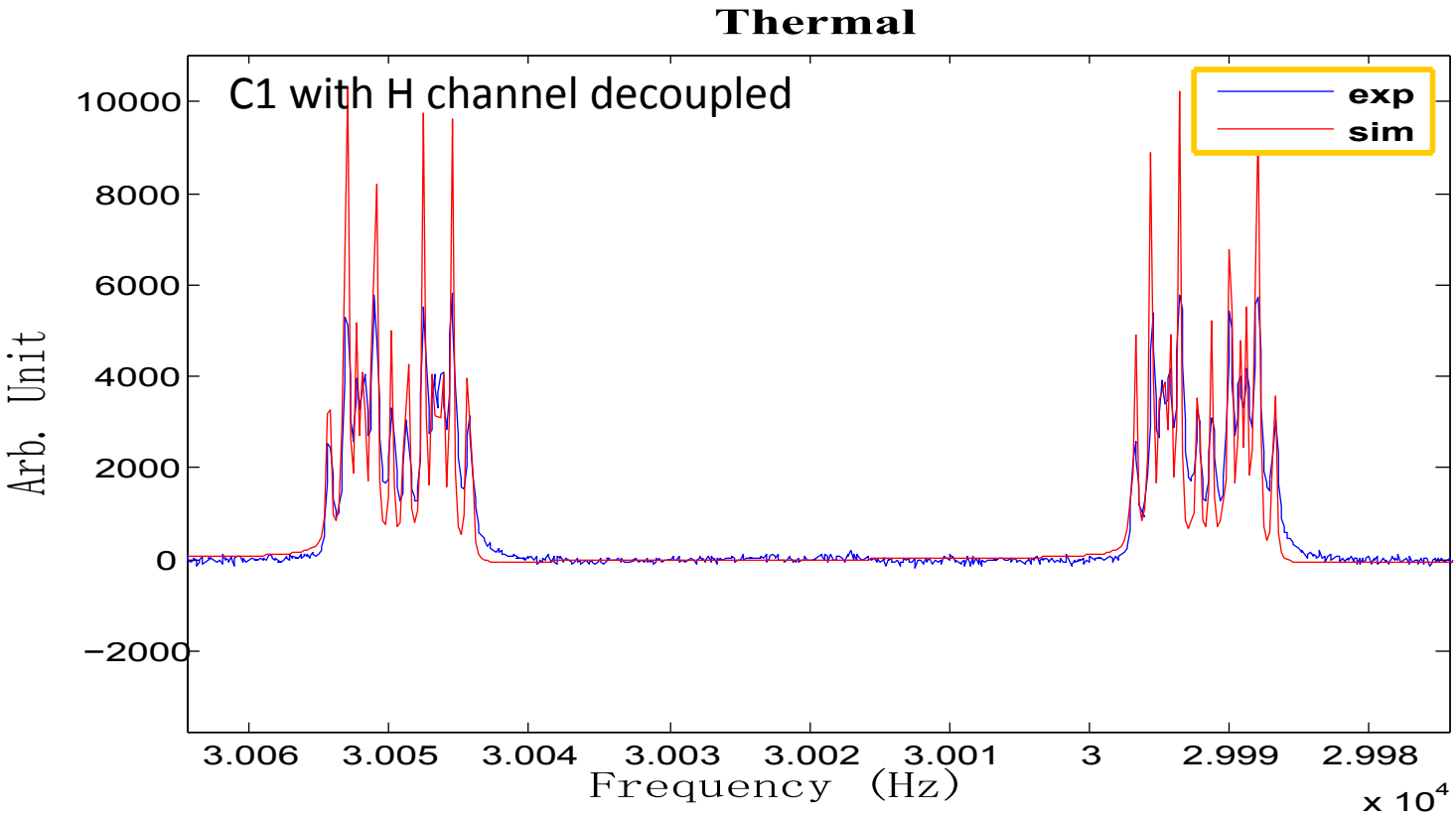
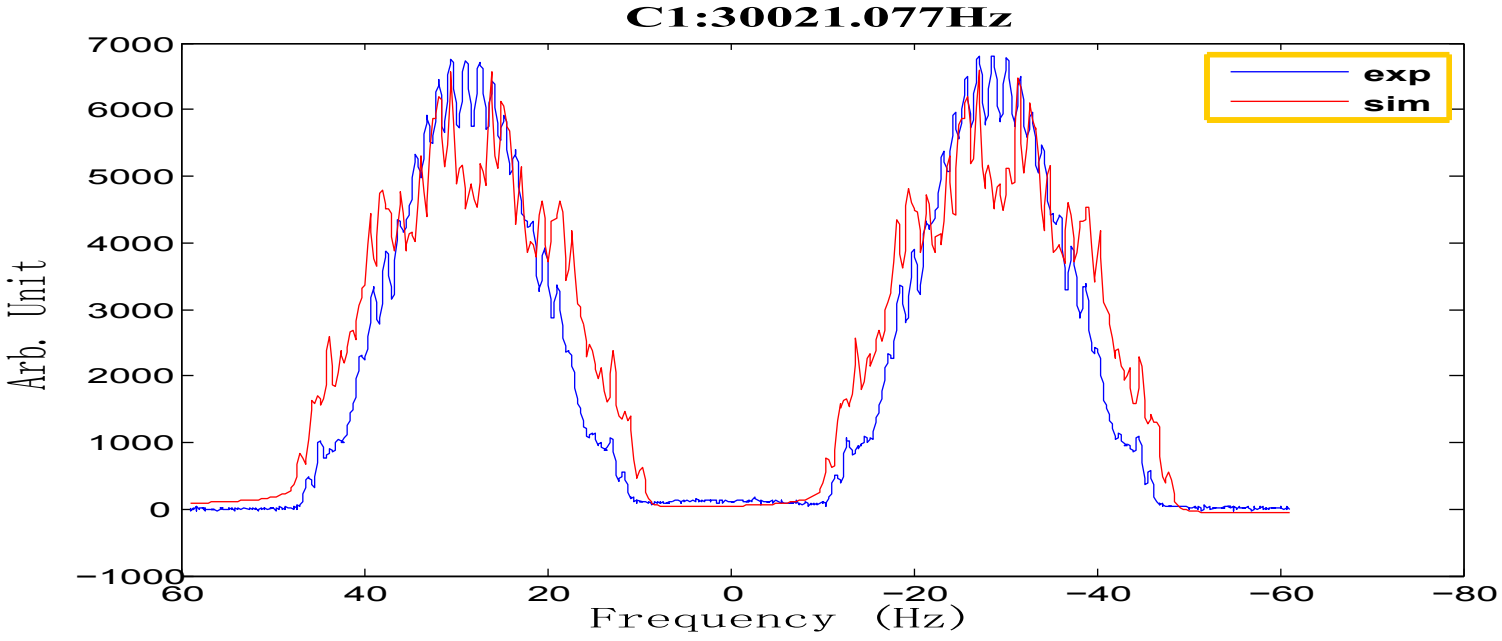
Some porblems in determining the heteronuclear J-coupling strengths

1. Get the J-couplings between any two C13 using the J-resolved experiments, with the H1 channel decoupled. You can consider the sample as a 7-qubit sample now.
2. Compare the simulated spectrum of each C13 with the exprimental results. This simulation will take about 10 minutes.



3. Get the heteronuclear J-couplings using the heteronuclear J-resolved experiments. Now it is a 12-qubit sample.
4. Compare the simulated spectrum with the exprimental results. This simulation will take over 40 minutes because of the number of qubit is 12. Also we need to set a good T2* value to simulate the half-line width.



5. We found they dont match well, which means the heteronuclear J-couplings are not correct. So we need to fit the experimental spectrum by searching the heteronuclear J-couplings. The program is still running now. So still under working now...