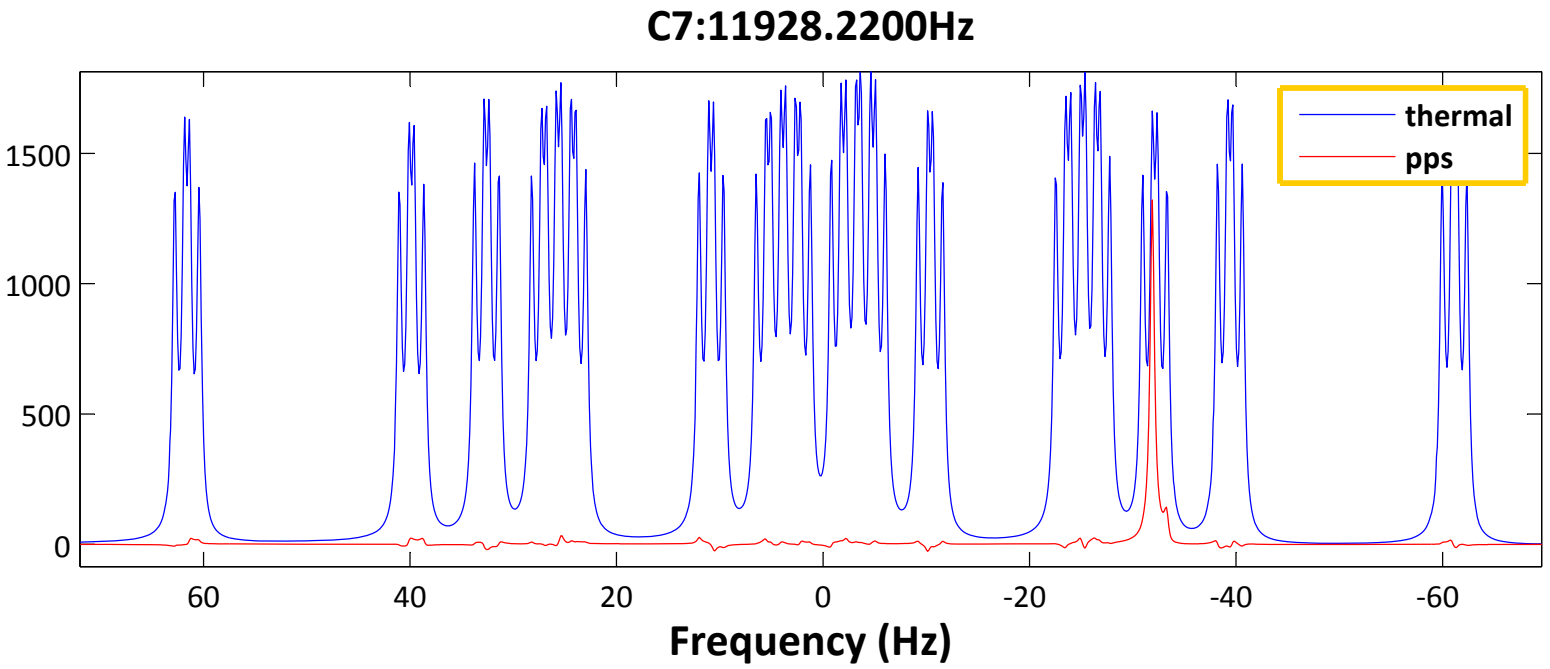
Notes about PPS preparation

2013/06/18

1. Encoding: Use compiler to get XXXXXXX from IIIIIIZ.
   Time: 54ms Final: 0.91XXXXXXX and minor terms
2. PhaseCycling: By pulse compiler to get the 7 coherence.
   0.86 of theoretical 7 coherence
3. Decoding: Write one shape pulse (42.312ms) to implement the network.
   Final State: 0.966 |011001X> and minor terms

Overall loss of signal: 1- 0.86*0.966 = 0.1692




Some possible reasons:

(a) Phase Cycling in experiment. 7 coherence cannot be observed, so it is hard to examine whether PC is good. But ZXZZZZZ in experiment is very good.

(b) The shape pulse of decoding needs correction. We have done pulsefixing. The experimental spectrum of applying decoding pulse on rho_th is very different from the simulated spectrum. (May be most important).

(c) Changes of Hamiltonian. Chemical shifts varied about 10Hz compared to the spectrum which is used to obtain the shape files.