



*$\alpha$ -glycine- $D_2$*

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**Field strength:** 9.4 T

### Why is this your favorite spectrum?

The sub-spectra were acquired using numerically optimized broadband pulses, with opposite frequency-sweep directions. For integer-spin nuclei, either sweep direction enhances the part of the pattern that is being swept towards. In this case, if you acquire two sub-spectra with both frequency sweeps, you can obtain a uniformly enhanced deuterium powder pattern. I like this spectrum because it really showcases the drastic enhancement that you can get from this effect.

Comments: This phenomenon of enhancing integer-spin nuclei with frequency-swept pulses was first identified in 2009 by Dr. Luke O'Dell.