Chiral recognition by dissolution DNP NMR spectroscopy of ^{13}C-labeled DL-methionine

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Supporting information includes:

Results

· Curve for the determination of the optimal ^{13}C microwave irradiation frequency (Figure S1).

· Solid-state ^{13}C polarization build-up curve of DL-[1-^{13}C]-methionine (Figure S2).

· ^{13}C NMR spectra of the d-DNP NMR enantiodifferentiated sample at thermal equilibrium acquired with 1scan (Figure S3).

Results

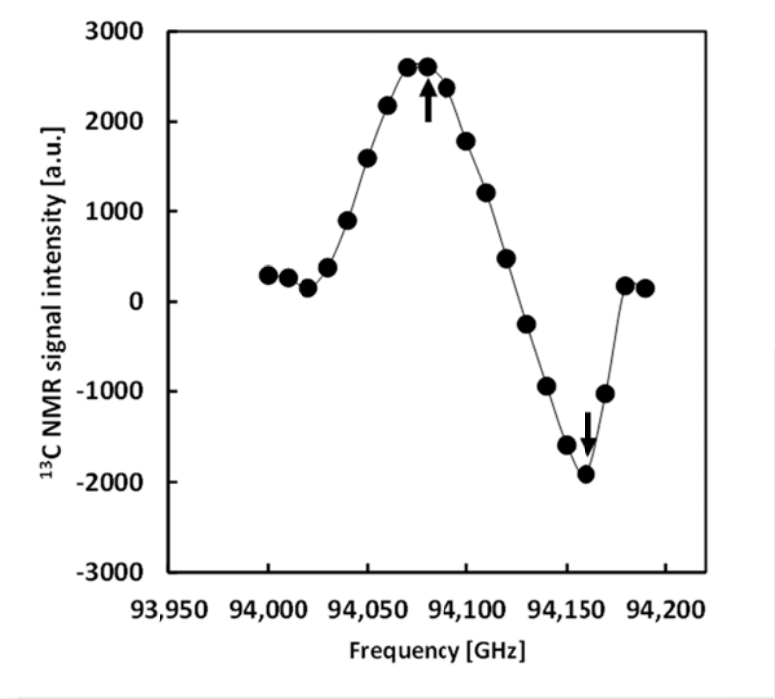

Figure S1. ^{13}C microwave spectrum of 50 µl (53,3 mg) of [1-^{13}C]-pyruvic acid doped with trityl radical OX63 (15 mM) in a matrix of H_2O:glycerol (1:1). Sample was polarized for 3 min at each different frequency. Arrows indicate the P(+) = 94,078 GHz and P(-) = 94,160 GHz, respectively.

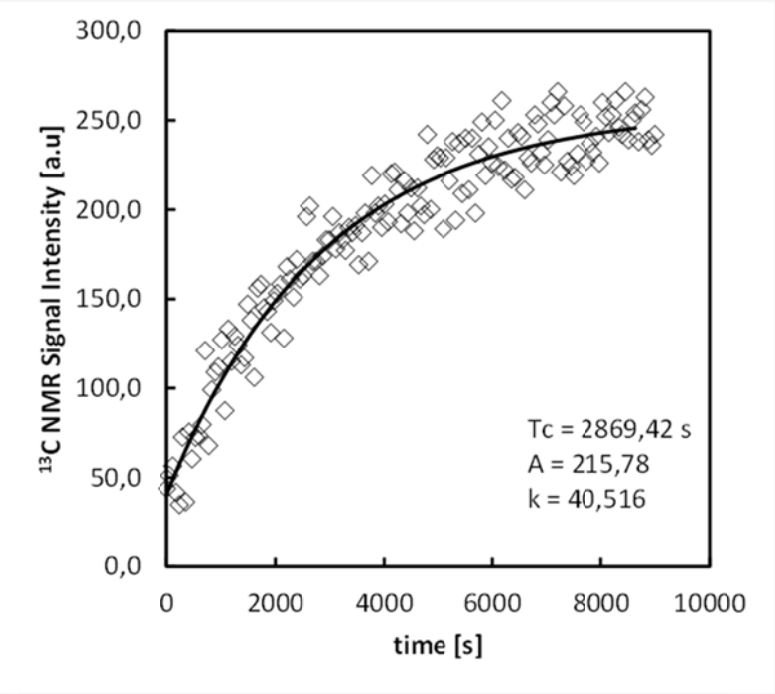

Figure S2. Solid-state ^{13}C polarization build-up curve of DL-[1-^{13}C]-methionine (50 µl, 224 mM) with trityl radical OX63 (15 mM) into H_2O:glycerol (1:1).

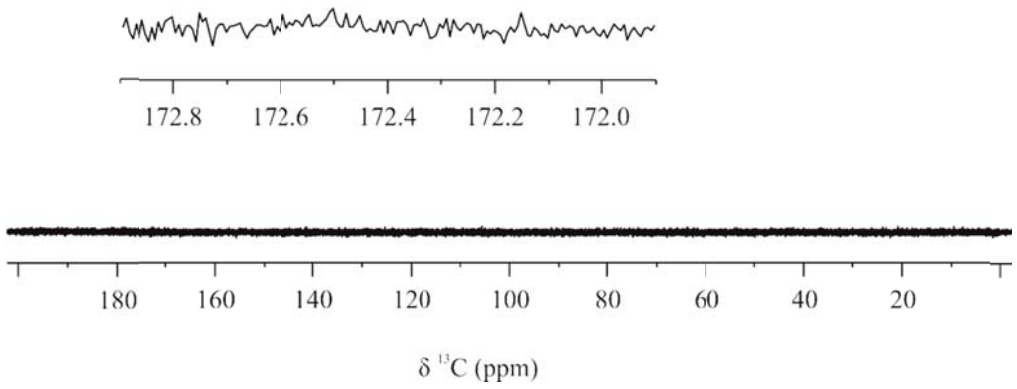

Figure S3. 150.92 MHz thermal equilibrium single scan ^{13}C NMR spectrum (expt 1 s) of DL-[1-^{13}C]-methionine (2.2 mM) with CSA (-)-18C6H4 (15 eq). The sample contains also trityl radical OX63, glycerol and H_2O.