

Supplementary Materials: Hyperpolarised ^1H - ^{13}C Benchtop NMR Spectroscopy

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Figure S1. Schematic representation and photo of the automated flow system setup used for SABRE hyperpolarisation with detection on the benchtop NMR spectrometer.

Table S1. Variable flip angles used for single-shot hyperpolarisation lifetime measurements carried out using the pulse sequence in Figure 2e of the main text (with $N = 15$). M_z and M_{xy} are the fraction of the initial magnetisation that is present along the longitudinal axis and in the transverse plane, respectively, immediately following the RF pulse and in the absence of relaxation. The flip angles have been optimised to excite a constant fraction of the available magnetisation at each step of the experiment.

Experiment Number	Flip Angle/degrees	$M_z/\%$	$M_{xy}/\%$
1	15.0	96.6%	25.9%
2	15.5	93.1%	25.8%
3	16.1	89.4%	25.8%
4	16.8	85.6%	25.8%
5	17.5	81.6%	25.7%
6	18.4	77.5%	25.8%
7	19.5	73.0%	25.9%
8	20.7	68.3%	25.8%
9	22.2	63.3%	25.8%
10	24.1	57.7%	25.8%
11	26.6	51.6%	25.9%
12	30.0	44.7%	25.8%
13	35.2	36.5%	25.8%
14	44.9	25.9%	25.8%
15	86.2	1.7%	25.8%