MAGNETIC RESONANCE

SPECTROSCOPY
METHODOLOGY
METROLOGY

NMR-EsPy

14:09:58 21-08-25

Experiment Information

Parameter	F1	F2
Nucleus	N/A	^{1}H
Transmitter Frequency (MHz)	N/A	499.86
Sweep Width (Hz)	50	5000
Sweep Width (ppm)	N/A	10.003
Transmitter Offset (Hz)	0	2500
Transmitter Offset (ppm)	N/A	5.0014

8.140 - 8.050 ppm

Osc.	a	ϕ (°)	f_1 (Hz)	f_2 (Hz)	f_2 (ppm)	η_1 (s^{-1})	η_2 (s^{-1})	$\int$
1	6.4549×10^{-2} $\pm 2.1453 \times 10^{-4}$	$0.105\,38$ $\pm 0.214\,21$	-4.4484 $\pm 1.0563 \times 10^{-3}$	4.0408×10^3 $\pm 2.3355 \times 10^{-3}$	8.0838 $\pm 4.6723 \times 10^{-6}$	1.6848 $\pm 5.4606 \times 10^{-3}$	4.5068 $\pm 1.3787 \times 10^{-2}$	5.0935
2	6.2469×10^{-2} $\pm 2.0594 \times 10^{-4}$	-2.1802 $\pm 0.224\,39$	-3.4424 $\pm 1.0778 \times 10^{-3}$	4.0417×10^3 $\pm 2.3409 \times 10^{-3}$	8.0857 $\pm 4.6832 \times 10^{-6}$	1.6651 $\pm 5.4337 \times 10^{-3}$	4.417 $\pm 1.3725 \times 10^{-2}$	4.8602
3	6.2197×10^{-2} $\pm 2.0589 \times 10^{-4}$	1.6206 $\pm 0.225\,17$	3.4445 $\pm 1.0823 \times 10^{-3}$	4.0486×10^3 $\pm 2.3495 \times 10^{-3}$	8.0994 $\pm 4.7003 \times 10^{-6}$	1.661 $\pm 5.4346 \times 10^{-3}$	4.4283 $\pm 1.3853 \times 10^{-2}$	4.8272
4	6.469×10^{-2} $\pm 2.1506 \times 10^{-4}$	$-0.802\,94$ $\pm 0.213\,63$	4.4504 $\pm 1.0559 \times 10^{-3}$	4.0495×10^3 $\pm 2.3392 \times 10^{-3}$	8.1013 $\pm 4.6798 \times 10^{-6}$	1.6821 $\pm 5.444 \times 10^{-3}$	4.5352 $\pm 1.3922 \times 10^{-2}$	5.0957

7.300 – 7.050 ppm

Osc.	a	ϕ (°)	f_1 (Hz)	f_2 (Hz)	f_2 (ppm)	η_1 (s^{-1})	η_2 (s^{-1})	$\int$
1	2.8684×10^{-2} $\pm 2.7347 \times 10^{-4}$	$-0.549\,76$ $\pm 0.539\,99$	-7.9106 $\pm 1.9475 \times 10^{-3}$	3.5399×10^3 $\pm 6.364 \times 10^{-3}$	7.0817 $\pm 1.2732 \times 10^{-5}$	1.1594 $\pm 1.2261 \times 10^{-2}$	4.214 $\pm 3.9241 \times 10^{-2}$	2.4579
2	2.7562×10^{-2} $\pm 2.6026 \times 10^{-4}$	$-0.766\,63$ $\pm 0.563\,81$	-6.9249 $\pm 1.9715 \times 10^{-3}$	3.5408×10^3 $\pm 6.2894 \times 10^{-3}$	7.0836 $\pm 1.2582 \times 10^{-5}$	1.1356 $\pm 1.2051 \times 10^{-2}$	4.0695 $\pm 3.7998 \times 10^{-2}$	2.386
3	5.7559×10^{-2} $\pm 2.968 \times 10^{-4}$	$0.736\,28$ $\pm 0.308\,95$	$-0.495\,69$ $\pm 1.2174 \times 10^{-3}$	3.5472×10^3 $\pm 3.5098 \times 10^{-3}$	7.0964 $\pm 7.0216 \times 10^{-6}$	1.3113 $\pm 7.186 \times 10^{-3}$	4.2895 $\pm 2.1428 \times 10^{-2}$	4.6959
4	5.7478×10^{-2} $\pm 2.9736 \times 10^{-4}$	$-0.373\,82$ $\pm 0.309\,15$	$0.496\,63$ $\pm 1.2202 \times 10^{-3}$	3.5482×10^3 $\pm 3.5166 \times 10^{-3}$	7.0984 $\pm 7.0351 \times 10^{-6}$	1.3109 $\pm 7.1961 \times 10^{-3}$	4.2967 $\pm 2.1543 \times 10^{-2}$	4.6875
5	2.9565×10^{-2} $\pm 2.7112 \times 10^{-4}$	1.6459 $\pm 0.550\,58$	6.9252 $\pm 1.9396 \times 10^{-3}$	3.5546×10^3 $\pm 6.1999 \times 10^{-3}$	7.1112 $\pm 1.2403 \times 10^{-5}$	1.1676 $\pm 1.1976 \times 10^{-2}$	4.196 $\pm 3.8114 \times 10^{-2}$	2.5394
6	3.0627×10^{-2} $\pm 2.8925 \times 10^{-4}$	1.2816 ± 0.5239	7.908 $\pm 1.9421 \times 10^{-3}$	3.5556×10^3 $\pm 6.2234 \times 10^{-3}$	7.1132 $\pm 1.245 \times 10^{-5}$	1.2207 $\pm 1.2689 \times 10^{-2}$	4.2658 $\pm 3.864 \times 10^{-2}$	2.5914
7	5.9303×10^{-2} $\pm 3.2591 \times 10^{-4}$	$-0.252\,68$ $\pm 0.361\,87$	-4.3331 $\pm 1.7947 \times 10^{-3}$	3.5788×10^3 $\pm 4.1263 \times 10^{-3}$	7.1596 $\pm 8.2549 \times 10^{-6}$	1.6282 $\pm 8.8948 \times 10^{-3}$	4.4497 $\pm 2.4087 \times 10^{-2}$	4.5897
8	6.4412×10^{-2} $\pm 3.2804 \times 10^{-4}$	$-0.419\,57$ $\pm 0.335\,17$	-3.1517 $\pm 1.6659 \times 10^{-3}$	3.58×10^3 $\pm 3.8099 \times 10^{-3}$	7.1619 $\pm 7.6219 \times 10^{-6}$	1.6509 $\pm 8.4134 \times 10^{-3}$	4.4441 $\pm 2.2346 \times 10^{-2}$	5.0915
9	6.3166×10^{-2} $\pm 3.2407 \times 10^{-4}$	$0.398\,24$ $\pm 0.335\,15$	3.1513 $\pm 1.6607 \times 10^{-3}$	3.5863×10^3 $\pm 3.8713 \times 10^{-3}$	7.1745 $\pm 7.7446 \times 10^{-6}$	1.6101 $\pm 8.2196 \times 10^{-3}$	4.5058 $\pm 2.3055 \times 10^{-2}$	5.0064
10	5.8357×10^{-2} $\pm 3.2092 \times 10^{-4}$	9.557×10^{-2} $\pm 0.362\,99$	4.3328 $\pm 1.7922 \times 10^{-3}$	3.5874×10^3 $\pm 4.1657 \times 10^{-3}$	7.1769 $\pm 8.3337 \times 10^{-6}$	1.5971 $\pm 8.7247 \times 10^{-3}$	4.5007 $\pm 2.4815 \times 10^{-2}$	4.5197
11	3.1547×10^{-2} $\pm 2.6361 \times 10^{-4}$	$-0.605\,47$ $\pm 0.471\,42$	-8.2049 $\pm 1.7735 \times 10^{-3}$	3.6186×10^3 $\pm 5.9116 \times 10^{-3}$	7.2392 $\pm 1.1826 \times 10^{-5}$	1.1884 $\pm 1.1205 \times 10^{-2}$	4.3145 $\pm 3.7436 \times 10^{-2}$	2.4757
12	2.8388×10^{-2} $\pm 2.4963 \times 10^{-4}$	-1.2234 $\pm 0.524\,04$	-7.0287 $\pm 1.8785 \times 10^{-3}$	3.6198×10^3 $\pm 6.2719 \times 10^{-3}$	7.2415 $\pm 1.2547 \times 10^{-5}$	1.1361 $\pm 1.1412 \times 10^{-2}$	4.2074 $\pm 3.8851 \times 10^{-2}$	2.356
13	2.7945×10^{-2} $\pm 6.274 \times 10^{-4}$	$0.536\,06$ ± 1.4705	$-0.856\,22$ $\pm 3.8782 \times 10^{-3}$	3.6259×10^3 $\pm 8.1427 \times 10^{-3}$	7.2538 $\pm 1.629 \times 10^{-5}$	1.1601 $\pm 2.1284 \times 10^{-2}$	4.1166 $\pm 4.8127 \times 10^{-2}$	2.3707
14	2.9472×10^{-2} $\pm 1.0249 \times 10^{-3}$	0.203 ± 2.0394	-0.321 $\pm 5.0094 \times 10^{-3}$	3.6264×10^3 $\pm 8.3837 \times 10^{-3}$	7.2549 $\pm 1.6772 \times 10^{-5}$	1.1744 $\pm 3.0368 \times 10^{-2}$	4.1079 $\pm 5.0095 \times 10^{-2}$	2.394
15	2.9454×10^{-2} $\pm 1.0649 \times 10^{-3}$	1.7243×10^{-2} ± 1.9786	$0.320\,86$ $\pm 4.9277 \times 10^{-3}$	3.6271×10^3 $\pm 8.3573 \times 10^{-3}$	7.2562 $\pm 1.6719 \times 10^{-5}$	1.1753 $\pm 3.1396 \times 10^{-2}$	4.1093 $\pm 5.0484 \times 10^{-2}$	2.3901
16	2.7539×10^{-2} $\pm 5.9535 \times 10^{-4}$	-0.3402 ± 1.5391	$0.856\,33$ $\pm 3.9622 \times 10^{-3}$	3.6276×10^3 $\pm 8.1402 \times 10^{-3}$	7.2572 $\pm 1.6285 \times 10^{-5}$	1.1451 $\pm 2.0844 \times 10^{-2}$	4.0911 $\pm 4.81 \times 10^{-2}$	2.346

Osc.	a	ϕ (°)	f_1 (Hz)	f_2 (Hz)	f_2 (ppm)	η_1 (s^{-1})	η_2 (s^{-1})	$\int$
17	2.6892×10^{-2} $\pm 2.4096 \times 10^{-4}$	0.84776 ± 0.5379	7.029 $\pm 1.9088 \times 10^{-3}$	3.6338×10^3 $\pm 6.3055 \times 10^{-3}$	7.2695 $\pm 1.2615 \times 10^{-5}$	1.1251 $\pm 1.1618 \times 10^{-2}$	4.0318 $\pm 3.748 \times 10^{-2}$	2.2469
18	2.9946×10^{-2} $\pm 2.5303 \times 10^{-4}$	0.71407 ± 0.48641	8.2068 $\pm 1.7875 \times 10^{-3}$	3.6349×10^3 $\pm 5.9768 \times 10^{-3}$	7.2719 $\pm 1.1957 \times 10^{-5}$	1.1535 $\pm 1.1086 \times 10^{-2}$	4.2112 $\pm 3.709 \times 10^{-2}$	2.359

5.960 – 5.870 ppm

Osc.	a	ϕ (°)	f_1 (Hz)	f_2 (Hz)	f_2 (ppm)	η_1 (s^{-1})	η_2 (s^{-1})	$\int$
1	3.3711×10^{-2} $\pm 3.685 \times 10^{-4}$	-2.5215 ± 0.94753	-7.4859 $\pm 7.9789 \times 10^{-3}$	2.9495×10^3 $\pm 1.1873 \times 10^{-3}$	5.9007 $\pm 2.3753 \times 10^{-6}$	2.6554 $\pm 1.8168 \times 10^{-2}$	4.8858 $\pm 5.7377 \times 10^{-2}$	2.4211
2	3.3707×10^{-2} $\pm 3.6939 \times 10^{-4}$	-3.7449 ± 1.6993	-5.6364 $\pm 1.447 \times 10^{-2}$	2.9513×10^3 $\pm 8.6872 \times 10^{-3}$	5.9042 $\pm 1.7379 \times 10^{-5}$	2.639 $\pm 2.8034 \times 10^{-2}$	4.8389 $\pm 6.3239 \times 10^{-2}$	2.4367
3	6.8426×10^{-2} $\pm 8.0739 \times 10^{-4}$	7.8196 ± 0.99702	-0.99932 $\pm 1.161 \times 10^{-2}$	2.9559×10^3 $\pm 1.5319 \times 10^{-2}$	5.9135 $\pm 3.0647 \times 10^{-5}$	4.3272 $\pm 4.5961 \times 10^{-2}$	6.861 $\pm 6.9448 \times 10^{-2}$	4.3514
4	7.0232×10^{-2} $\pm 8.1088 \times 10^{-4}$	-8.1009 ± 1.0022	1.0021 $\pm 1.1781 \times 10^{-2}$	2.9578×10^3 $\pm 1.5443 \times 10^{-2}$	5.9172 $\pm 3.0894 \times 10^{-5}$	4.3936 $\pm 4.5842 \times 10^{-2}$	6.8951 $\pm 6.8187 \times 10^{-2}$	4.4528
5	3.3131×10^{-2} $\pm 3.7348 \times 10^{-4}$	3.0082 ± 1.5639	5.6382 $\pm 1.3343 \times 10^{-2}$	2.9624×10^3 $\pm 6.9079 \times 10^{-3}$	5.9265 $\pm 1.382 \times 10^{-5}$	2.6329 $\pm 2.8302 \times 10^{-2}$	4.7974 $\pm 6.3539 \times 10^{-2}$	2.3997
6	3.3358×10^{-2} $\pm 3.0837 \times 10^{-4}$	1.7427 ± 0.82082	7.4917 $\pm 6.7732 \times 10^{-3}$	2.9642×10^3 $\pm 4.551 \times 10^{-3}$	5.9301 $\pm 9.1045 \times 10^{-6}$	2.6247 $\pm 1.8861 \times 10^{-2}$	4.8994 $\pm 5.9223 \times 10^{-2}$	2.3991

4.350 – 4.000 ppm

Osc.	a	ϕ (°)	f_1 (Hz)	f_2 (Hz)	f_2 (ppm)	η_1 (s^{-1})	η_2 (s^{-1})	$\int$
1	5.493×10^{-2} $\pm 3.5658 \times 10^{-4}$	-0.53219 ± 0.37123	-9.9663 $\pm 1.4753 \times 10^{-3}$	2.0216×10^3 $\pm 5.099 \times 10^{-3}$	4.0442 $\pm 1.0201 \times 10^{-5}$	1.1779 $\pm 9.2568 \times 10^{-3}$	4.2579 $\pm 3.1958 \times 10^{-2}$	4.7782
2	5.4325×10^{-2} $\pm 3.5055 \times 10^{-4}$	8.1876×10^{-3} ± 0.37336	-3.8348 $\pm 1.4625 \times 10^{-3}$	2.0277×10^3 $\pm 5.06 \times 10^{-3}$	4.0565 $\pm 1.0123 \times 10^{-5}$	1.1607 $\pm 9.0933 \times 10^{-3}$	4.2076 $\pm 3.1353 \times 10^{-2}$	4.5947
3	5.6011×10^{-2} $\pm 3.5543 \times 10^{-4}$	0.33542 ± 0.36598	3.8345 $\pm 1.4572 \times 10^{-3}$	2.0353×10^3 $\pm 4.9726 \times 10^{-3}$	4.0718 $\pm 9.948 \times 10^{-6}$	1.196 $\pm 9.257 \times 10^{-3}$	4.2002 $\pm 3.0732 \times 10^{-2}$	4.7115

Osc.	a	ϕ (°)	f_1 (Hz)	f_2 (Hz)	f_2 (ppm)	η_1 (s⁻¹)	η_2 (s⁻¹)	$\int$
4	5.5378×10^{-2} $\pm 3.5434 \times 10^{-4}$	$0.679\,52$ $\pm 0.369\,48$	9.9652 $\pm 1.468 \times 10^{-3}$	2.0414×10^3 $\pm 5.0169 \times 10^{-3}$	4.084 $\pm 1.0037 \times 10^{-5}$	1.1941 $\pm 9.3365 \times 10^{-3}$	4.1899 $\pm 3.0881 \times 10^{-2}$	4.8009
5	5.5565×10^{-2} $\pm 3.5417 \times 10^{-4}$	-1.0022 $\pm 0.367\,36$	-10.382 $\pm 1.4587 \times 10^{-3}$	2.0643×10^3 $\pm 4.9824 \times 10^{-3}$	4.1298 $\pm 9.9675 \times 10^{-6}$	1.1897 $\pm 9.2491 \times 10^{-3}$	4.1923 $\pm 3.0831 \times 10^{-2}$	4.7796
6	5.5278×10^{-2} $\pm 3.5503 \times 10^{-4}$	-0.383 $\pm 0.369\,88$	-3.415 $\pm 1.472 \times 10^{-3}$	2.0713×10^3 $\pm 5.0172 \times 10^{-3}$	4.1437 $\pm 1.0037 \times 10^{-5}$	1.1941 $\pm 9.3544 \times 10^{-3}$	4.193 $\pm 3.1055 \times 10^{-2}$	4.5718
7	5.4009×10^{-2} $\pm 3.5064 \times 10^{-4}$	$-0.201\,03$ $\pm 0.375\,78$	3.4157 $\pm 1.4753 \times 10^{-3}$	2.0781×10^3 $\pm 5.0916 \times 10^{-3}$	4.1573 $\pm 1.0186 \times 10^{-5}$	1.1632 $\pm 9.1657 \times 10^{-3}$	4.2061 $\pm 3.1543 \times 10^{-2}$	4.4694
8	5.6547×10^{-2} $\pm 3.6156 \times 10^{-4}$	$0.198\,11$ $\pm 0.363\,15$	10.385 $\pm 1.4574 \times 10^{-3}$	2.085×10^3 $\pm 5.0488 \times 10^{-3}$	4.1712 $\pm 1.01 \times 10^{-5}$	1.1857 $\pm 9.1385 \times 10^{-3}$	4.3284 $\pm 3.2177 \times 10^{-2}$	4.8443
9	2.9773×10^{-2} $\pm 3.4701 \times 10^{-4}$	$-0.413\,22$ $\pm 0.683\,67$	-7.5551 $\pm 2.6515 \times 10^{-3}$	2.1359×10^3 $\pm 9.0661 \times 10^{-3}$	4.273 $\pm 1.8137 \times 10^{-5}$	1.1615 $\pm 1.6486 \times 10^{-2}$	4.1234 $\pm 5.5073 \times 10^{-2}$	2.536
10	6.103×10^{-2} $\pm 3.5891 \times 10^{-4}$	$-0.186\,84$ $\pm 0.341\,99$	-4.2319 $\pm 1.3527 \times 10^{-3}$	2.1392×10^3 $\pm 4.584 \times 10^{-3}$	4.2797 $\pm 9.1705 \times 10^{-6}$	1.1862 $\pm 8.3597 \times 10^{-3}$	4.2173 $\pm 2.8427 \times 10^{-2}$	4.9063
11	2.9553×10^{-2} $\pm 3.6505 \times 10^{-4}$	3.5945×10^{-3} $\pm 0.721\,69$	$-0.909\,67$ $\pm 2.7235 \times 10^{-3}$	2.1426×10^3 $\pm 9.2797 \times 10^{-3}$	4.2863 $\pm 1.8564 \times 10^{-5}$	1.151 $\pm 1.6787 \times 10^{-2}$	4.167 $\pm 5.7067 \times 10^{-2}$	2.5741
12	2.9668×10^{-2} $\pm 3.6513 \times 10^{-4}$	$-0.201\,58$ $\pm 0.719\,25$	$0.909\,73$ $\pm 2.7216 \times 10^{-3}$	2.1444×10^3 $\pm 9.2213 \times 10^{-3}$	4.2899 $\pm 1.8448 \times 10^{-5}$	1.1585 $\pm 1.6861 \times 10^{-2}$	4.1458 $\pm 5.6484 \times 10^{-2}$	2.5778
13	6.0381×10^{-2} $\pm 3.5803 \times 10^{-4}$	8.797×10^{-3} $\pm 0.344\,57$	4.2321 $\pm 1.3545 \times 10^{-3}$	2.1477×10^3 $\pm 4.6249 \times 10^{-3}$	4.2966 $\pm 9.2523 \times 10^{-6}$	1.1762 $\pm 8.3626 \times 10^{-3}$	4.2265 $\pm 2.8732 \times 10^{-2}$	4.8601
14	2.942×10^{-2} $\pm 3.436 \times 10^{-4}$	$0.308\,09$ $\pm 0.688\,79$	7.5568 $\pm 2.6465 \times 10^{-3}$	2.151×10^3 $\pm 9.1092 \times 10^{-3}$	4.3032 $\pm 1.8223 \times 10^{-5}$	1.1405 $\pm 1.6175 \times 10^{-2}$	4.1296 $\pm 5.5396 \times 10^{-2}$	2.5178

4.000 – 3.640 ppm

Osc.	a	ϕ (°)	f_1 (Hz)	f_2 (Hz)	f_2 (ppm)	η_1 (s⁻¹)	η_2 (s⁻¹)	$\int$
1	3.0515×10^{-2} $\pm 7.1215 \times 10^{-5}$	$-0.262\,27$ $\pm 0.134\,15$	-9.0998 $\pm 5.0084 \times 10^{-4}$	1.8487×10^3 $\pm 1.6953 \times 10^{-3}$	3.6984 $\pm 3.3916 \times 10^{-6}$	1.1686 $\pm 3.1295 \times 10^{-3}$	4.2349 $\pm 1.055 \times 10^{-2}$	2.5475
2	3.1298×10^{-2} $\pm 7.0883 \times 10^{-5}$	$-0.326\,22$ $\pm 0.118\,73$	-7.4872 $\pm 9.376 \times 10^{-5}$	1.8503×10^3 $\pm 2.8077 \times 10^{-3}$	3.7016 $\pm 5.6169 \times 10^{-6}$	1.1786 $\pm 6.7802 \times 10^{-3}$	4.08 $\pm 1.9715 \times 10^{-2}$	2.5354
3	2.8543×10^{-2} $\pm 8.4495 \times 10^{-5}$	$-0.312\,96$ $\pm 0.162\,98$	-7.3087 $\pm 1.1584 \times 10^{-3}$	1.8505×10^3 $\pm 3.6214 \times 10^{-3}$	3.7021 $\pm 7.2447 \times 10^{-6}$	1.1355 $\pm 1.6718 \times 10^{-3}$	4.1348 $\pm 1.9356 \times 10^{-2}$	2.4041
4	3.0419×10^{-2} $\pm 7.0775 \times 10^{-5}$	$-0.545\,18$ $\pm 0.135\,02$	-5.6982 $\pm 5.0422 \times 10^{-4}$	1.8521×10^3 $\pm 1.6954 \times 10^{-3}$	3.7052 $\pm 3.3917 \times 10^{-6}$	1.1672 $\pm 3.116 \times 10^{-3}$	4.234 $\pm 1.0589 \times 10^{-2}$	2.6232

Osc.	a	ϕ (°)	f_1 (Hz)	f_2 (Hz)	f_2 (ppm)	η_1 (s^{-1})	η_2 (s^{-1})	$\int$
5	2.9711×10^{-2} $\pm 6.7349 \times 10^{-5}$	-0.1196 $\pm 0.133\,31$	5.6998 $\pm 4.9658 \times 10^{-4}$	1.8635×10^3 $\pm 1.679 \times 10^{-3}$	3.728 $\pm 3.3588 \times 10^{-6}$	1.1367 $\pm 2.9911 \times 10^{-3}$	4.1758 $\pm 1.0357 \times 10^{-2}$	2.5723
6	6.3748×10^{-2} $\pm 7.9998 \times 10^{-5}$	$0.310\,76$ $\pm 7.6056 \times 10^{-2}$	7.3997 $\pm 3.4378 \times 10^{-4}$	1.8652×10^3 $\pm 9.6123 \times 10^{-4}$	3.7314 $\pm 1.923 \times 10^{-6}$	1.4363 $\pm 1.9551 \times 10^{-3}$	4.3982 $\pm 5.891 \times 10^{-3}$	4.9781
7	2.9836×10^{-2} $\pm 6.786 \times 10^{-5}$	0.2655 $\pm 0.132\,73$	9.0996 $\pm 4.9587 \times 10^{-4}$	1.8669×10^3 $\pm 1.6804 \times 10^{-3}$	3.7348 $\pm 3.3617 \times 10^{-6}$	1.1435 $\pm 3.0227 \times 10^{-3}$	4.1858 $\pm 1.039 \times 10^{-2}$	2.5072
8	$0.122\,94$ $\pm 6.4459 \times 10^{-5}$	$-0.310\,52$ $\pm 3.0169 \times 10^{-2}$	-5.2045 $\pm 1.1963 \times 10^{-4}$	1.9244×10^3 $\pm 4.1245 \times 10^{-4}$	3.8498 $\pm 8.2512 \times 10^{-7}$	1.1775 $\pm 7.5007 \times 10^{-4}$	4.2414 $\pm 2.5756 \times 10^{-3}$	10.333
9	$0.122\,77$ $\pm 6.4327 \times 10^{-5}$	$0.215\,48$ $\pm 3.0195 \times 10^{-2}$	5.205 $\pm 1.1961 \times 10^{-4}$	1.9348×10^3 $\pm 4.1229 \times 10^{-4}$	3.8706 $\pm 8.2481 \times 10^{-7}$	1.1752 $\pm 7.4783 \times 10^{-4}$	4.2377 $\pm 2.5722 \times 10^{-3}$	10.354
10	6.0869×10^{-2} $\pm 6.5334 \times 10^{-5}$	-3.3724×10^{-2} $\pm 6.2224 \times 10^{-2}$	-3.3751 $\pm 2.4082 \times 10^{-4}$	1.9776×10^3 $\pm 8.2867 \times 10^{-4}$	3.9563 $\pm 1.6578 \times 10^{-6}$	1.1616 $\pm 1.4927 \times 10^{-3}$	4.2251 $\pm 5.1692 \times 10^{-3}$	5.1946
11	6.0867×10^{-2} $\pm 6.8235 \times 10^{-5}$	$-0.121\,15$ $\pm 6.4822 \times 10^{-2}$	$-0.954\,58$ $\pm 2.4624 \times 10^{-4}$	1.98×10^3 $\pm 8.3967 \times 10^{-4}$	3.9611 $\pm 1.6798 \times 10^{-6}$	1.1666 $\pm 1.5303 \times 10^{-3}$	4.2276 $\pm 5.226 \times 10^{-3}$	5.3195
12	6.0296×10^{-2} $\pm 6.7803 \times 10^{-5}$	$-0.111\,25$ $\pm 6.5216 \times 10^{-2}$	$0.955\,28$ $\pm 2.4689 \times 10^{-4}$	1.9819×10^3 $\pm 8.3967 \times 10^{-4}$	3.9649 $\pm 1.6798 \times 10^{-6}$	1.1619 $\pm 1.5299 \times 10^{-3}$	4.2024 $\pm 5.2108 \times 10^{-3}$	5.266
13	5.9973×10^{-2} $\pm 6.4873 \times 10^{-5}$	-0.1301 $\pm 6.2887 \times 10^{-2}$	3.3757 $\pm 2.4298 \times 10^{-4}$	1.9843×10^3 $\pm 8.3209 \times 10^{-4}$	3.9698 $\pm 1.6646 \times 10^{-6}$	1.1597 $\pm 1.5028 \times 10^{-3}$	4.1845 $\pm 5.144 \times 10^{-3}$	5.1095

3.300 – 3.050 ppm

Osc.	a	ϕ (°)	f_1 (Hz)	f_2 (Hz)	f_2 (ppm)	η_1 (s^{-1})	η_2 (s^{-1})	$\int$
1	6.0817×10^{-2} $\pm 1.4414 \times 10^{-4}$	$-0.677\,64$ $\pm 0.136\,33$	-10.342 $\pm 5.387 \times 10^{-4}$	1.5557×10^3 $\pm 1.8475 \times 10^{-3}$	3.1123 $\pm 3.6961 \times 10^{-6}$	1.1769 $\pm 3.3736 \times 10^{-3}$	4.2196 $\pm 1.1516 \times 10^{-2}$	5.284
2	5.9836×10^{-2} $\pm 1.4373 \times 10^{-4}$	$-0.979\,57$ $\pm 0.138\,18$	-6.9962 $\pm 5.3958 \times 10^{-4}$	1.559×10^3 $\pm 1.847 \times 10^{-3}$	3.119 $\pm 3.6951 \times 10^{-6}$	1.1654 $\pm 3.3686 \times 10^{-3}$	4.1603 $\pm 1.1372 \times 10^{-2}$	4.9936
3	1.3494×10^{-2} $\pm 2.3849 \times 10^{-4}$	$-0.310\,57$ ± 1.9465	-5.5205 $\pm 1.6878 \times 10^{-2}$	1.5692×10^3 $\pm 1.9501 \times 10^{-3}$	3.1393 $\pm 3.9012 \times 10^{-6}$	2.4112 $\pm 3.2915 \times 10^{-2}$	4.4179 $\pm 7.6983 \times 10^{-2}$	1
4	2.7191×10^{-2} $\pm 1.4229 \times 10^{-4}$	$-0.484\,44$ $\pm 0.879\,45$	-3.7128 $\pm 5.2068 \times 10^{-3}$	1.571×10^3 $\pm 9.2365 \times 10^{-3}$	3.1428 $\pm 1.8478 \times 10^{-5}$	2.3418 $\pm 1.8908 \times 10^{-2}$	5.0009 $\pm 4.5511 \times 10^{-2}$	2.0016
5	4.0452×10^{-2} $\pm 5.9299 \times 10^{-4}$	$0.202\,61$ ± 1.5949	-1.9085 $\pm 1.1317 \times 10^{-2}$	1.5728×10^3 $\pm 1.3469 \times 10^{-2}$	3.1465 $\pm 2.6946 \times 10^{-5}$	3.2211 $\pm 3.3546 \times 10^{-2}$	6.0567 $\pm 5.8351 \times 10^{-2}$	2.7455
6	6.0062×10^{-2} $\pm 1.4875 \times 10^{-4}$	$-0.238\,48$ $\pm 0.143\,64$	6.9993 $\pm 5.5082 \times 10^{-4}$	1.573×10^3 $\pm 1.8739 \times 10^{-3}$	3.1469 $\pm 3.7487 \times 10^{-6}$	1.1659 $\pm 3.4061 \times 10^{-3}$	4.1876 $\pm 1.1566 \times 10^{-2}$	4.9903

Osc.	a	ϕ (°)	f_1 (Hz)	f_2 (Hz)	f_2 (ppm)	η_1 (s^{-1})	η_2 (s^{-1})	$\int$
7	8.8381×10^{-2} $\pm 2.0932 \times 10^{-3}$	$-0.825\,65$ ± 1.0522	4.2286×10^{-3} $\pm 1.3974 \times 10^{-2}$	1.5747×10^{3} $\pm 1.6489 \times 10^{-2}$	3.1503 $\pm 3.2988 \times 10^{-5}$	5.7971 $\pm 7.9215 \times 10^{-2}$	8.4426 $\pm 8.3727 \times 10^{-2}$	5.207
8	5.9912×10^{-2} $\pm 1.4642 \times 10^{-4}$	$-0.141\,55$ $\pm 0.141\,72$	10.344 $\pm 5.4829 \times 10^{-4}$	1.5763×10^{3} $\pm 1.8662 \times 10^{-3}$	3.1536 $\pm 3.7335 \times 10^{-6}$	1.1688 $\pm 3.4166 \times 10^{-3}$	4.1821 $\pm 1.1517 \times 10^{-2}$	5.2274
9	4.1159×10^{-2} $\pm 5.6887 \times 10^{-4}$	-1.5469 ± 1.8686	1.913 $\pm 1.3116 \times 10^{-2}$	1.5766×10^{3} $\pm 1.494 \times 10^{-2}$	3.1541 $\pm 2.9889 \times 10^{-5}$	3.2938 $\pm 3.3788 \times 10^{-2}$	5.9627 $\pm 5.6423 \times 10^{-2}$	2.7877
10	2.8068×10^{-2} $\pm 1.7093 \times 10^{-4}$	$-0.898\,83$ ± 0.8923	3.7202 $\pm 5.277 \times 10^{-3}$	1.5784×10^{3} $\pm 9.1505 \times 10^{-3}$	3.1577 $\pm 1.8306 \times 10^{-5}$	2.3708 $\pm 1.8881 \times 10^{-2}$	5.045 $\pm 4.6104 \times 10^{-2}$	2.0599
11	1.3746×10^{-2} $\pm 2.5077 \times 10^{-4}$	$-0.994\,08$ ± 1.9919	5.5434 $\pm 1.7265 \times 10^{-2}$	1.5802×10^{3} $\pm 1.9755 \times 10^{-3}$	3.1612 $\pm 3.952 \times 10^{-6}$	2.3976 $\pm 3.0923 \times 10^{-2}$	4.4856 $\pm 7.7501 \times 10^{-2}$	1.0183
12	3.0915×10^{-2} $\pm 1.4553 \times 10^{-4}$	$-0.855\,58$ $\pm 0.269\,48$	-11.307 $\pm 1.0796 \times 10^{-3}$	1.5981×10^{3} $\pm 3.7076 \times 10^{-3}$	3.1971 $\pm 7.4172 \times 10^{-6}$	1.1936 $\pm 6.8133 \times 10^{-3}$	4.2735 $\pm 2.3309 \times 10^{-2}$	2.4382
13	2.7479×10^{-2} $\pm 4.9486 \times 10^{-4}$	-1.0087 $\pm 0.842\,07$	-7.094 $\pm 3.1229 \times 10^{-3}$	1.6023×10^{3} $\pm 1.5699 \times 10^{-3}$	3.2055 $\pm 3.1408 \times 10^{-6}$	1.1161 $\pm 1.5263 \times 10^{-2}$	3.9859 $\pm 3.5343 \times 10^{-2}$	2.3341
14	3.1712×10^{-2} $\pm 2.7474 \times 10^{-4}$	-1.1494 ± 1.0425	-6.8113 $\pm 2.3608 \times 10^{-3}$	1.6026×10^{3} $\pm 5.6673 \times 10^{-3}$	3.2062 $\pm 1.1338 \times 10^{-5}$	1.2125 $\pm 1.8809 \times 10^{-2}$	4.1021 $\pm 1.7371 \times 10^{-2}$	2.73
15	3.0049×10^{-2} $\pm 1.4131 \times 10^{-4}$	$-0.606\,37$ $\pm 0.274\,66$	-2.5869 $\pm 1.0695 \times 10^{-3}$	1.6068×10^{3} $\pm 3.6713 \times 10^{-3}$	3.2145 $\pm 7.3446 \times 10^{-6}$	1.1616 $\pm 6.6362 \times 10^{-3}$	4.165 $\pm 2.258 \times 10^{-2}$	2.5784
16	2.9749×10^{-2} $\pm 1.4076 \times 10^{-4}$	$-0.587\,87$ $\pm 0.277\,46$	2.5916 $\pm 1.0832 \times 10^{-3}$	1.612×10^{3} $\pm 3.6982 \times 10^{-3}$	3.2249 $\pm 7.3985 \times 10^{-6}$	1.1602 $\pm 6.6373 \times 10^{-3}$	4.1454 $\pm 2.2545 \times 10^{-2}$	2.5404
17	6.6248×10^{-2} $\pm 1.7294 \times 10^{-4}$	$0.460\,99$ $\pm 0.170\,83$	6.9518 $\pm 1.0868 \times 10^{-3}$	1.6163×10^{3} $\pm 2.3925 \times 10^{-3}$	3.2335 $\pm 4.7863 \times 10^{-6}$	1.8249 $\pm 5.2876 \times 10^{-3}$	4.5367 $\pm 1.4285 \times 10^{-2}$	5.1599
18	3.0035×10^{-2} $\pm 1.4245 \times 10^{-4}$	$0.564\,85$ $\pm 0.274\,49$	11.308 $\pm 1.0802 \times 10^{-3}$	1.6207×10^{3} $\pm 3.7229 \times 10^{-3}$	3.2422 $\pm 7.4479 \times 10^{-6}$	1.163 $\pm 6.6764 \times 10^{-3}$	4.2253 $\pm 2.3209 \times 10^{-2}$	2.3672

3.000 – 2.560 ppm

Osc.	a	ϕ (°)	f_1 (Hz)	f_2 (Hz)	f_2 (ppm)	η_1 (s^{-1})	η_2 (s^{-1})	$\int$
1	5.9944×10^{-2} $\pm 8.7518 \times 10^{-5}$	-9.2906×10^{-2} $\pm 8.4442 \times 10^{-2}$	-12.902 $\pm 3.3062 \times 10^{-4}$	1.3215×10^{3} $\pm 1.1453 \times 10^{-3}$	2.6438 $\pm 2.2912 \times 10^{-6}$	1.1588 $\pm 2.0556 \times 10^{-3}$	4.2168 $\pm 7.1214 \times 10^{-3}$	4.7127
2	6.0499×10^{-2} $\pm 8.7881 \times 10^{-5}$	0.1443 $\pm 8.3996 \times 10^{-2}$	-4.4396 $\pm 3.3199 \times 10^{-4}$	1.33×10^{3} $\pm 1.1375 \times 10^{-3}$	2.6607 $\pm 2.2757 \times 10^{-6}$	1.173 $\pm 2.0669 \times 10^{-3}$	4.2025 $\pm 7.0521 \times 10^{-3}$	5.1466
3	6.1039×10^{-2} $\pm 8.8348 \times 10^{-5}$	$0.174\,38$ $\pm 8.3513 \times 10^{-2}$	4.4379 $\pm 3.3035 \times 10^{-4}$	1.3389×10^{3} $\pm 1.1378 \times 10^{-3}$	2.6785 $\pm 2.2761 \times 10^{-6}$	1.1746 $\pm 2.0633 \times 10^{-3}$	4.235 $\pm 7.0964 \times 10^{-3}$	5.1992

Osc.	a	ϕ (°)	f_1 (Hz)	f_2 (Hz)	f_2 (ppm)	η_1 (s^{-1})	η_2 (s^{-1})	$\int$
4	6.1488×10^{-2} $\pm 8.8754 \times 10^{-5}$	$0.185\,93$ $\pm 8.304 \times 10^{-2}$	12.903 $\pm 3.296 \times 10^{-4}$	1.3473×10^{3} $\pm 1.1356 \times 10^{-3}$	2.6954 $\pm 2.2718 \times 10^{-6}$	1.1793 $\pm 2.0654 \times 10^{-3}$	4.25 $\pm 7.1066 \times 10^{-3}$	4.8387
5	$0.122\,29$ $\pm 8.8452 \times 10^{-5}$	$-0.356\,89$ $\pm 4.1679 \times 10^{-2}$	-7.3992 $\pm 1.6467 \times 10^{-4}$	1.3647×10^{3} $\pm 5.6766 \times 10^{-4}$	2.7302 $\pm 1.1356 \times 10^{-6}$	1.1748 $\pm 1.0313 \times 10^{-3}$	4.2312 $\pm 3.538 \times 10^{-3}$	9.659
6	$0.122\,84$ $\pm 8.8631 \times 10^{-5}$	$0.337\,01$ $\pm 4.1518 \times 10^{-2}$	7.3994 $\pm 1.6441 \times 10^{-4}$	1.3795×10^{3} $\pm 5.6661 \times 10^{-4}$	2.7598 $\pm 1.1335 \times 10^{-6}$	1.178 $\pm 1.0319 \times 10^{-3}$	4.2374 $\pm 3.5361 \times 10^{-3}$	9.7016
7	3.0516×10^{-2} $\pm 8.8503 \times 10^{-5}$	2.4834×10^{-2} $\pm 0.166\,91$	-15.889 $\pm 6.5989 \times 10^{-4}$	1.4226×10^{3} $\pm 2.2727 \times 10^{-3}$	2.8459 $\pm 4.5467 \times 10^{-6}$	1.1768 $\pm 4.1445 \times 10^{-3}$	4.2251 $\pm 1.4146 \times 10^{-2}$	2.5657
8	3.2144×10^{-2} $\pm 9.1911 \times 10^{-4}$	6.9645×10^{-2} ± 1.8763	-7.0885 $\pm 4.971 \times 10^{-3}$	1.4313×10^{3} $\pm 8.6713 \times 10^{-3}$	2.8633 $\pm 1.7347 \times 10^{-5}$	1.2218 $\pm 1.0887 \times 10^{-2}$	4.1614 $\pm 2.3337 \times 10^{-2}$	2.6766
9	2.7601×10^{-2} $\pm 7.3102 \times 10^{-4}$	3.5213×10^{-2} ± 2.3955	-6.8021 $\pm 2.7931 \times 10^{-3}$	1.4317×10^{3} $\pm 4.9746 \times 10^{-3}$	2.8642 $\pm 9.9519 \times 10^{-6}$	1.1314 $\pm 2.9897 \times 10^{-2}$	4.0476 $\pm 5.2746 \times 10^{-2}$	2.4111
10	2.9871×10^{-2} $\pm 8.7572 \times 10^{-5}$	$0.214\,19$ $\pm 0.173\,52$	-1.9904 $\pm 6.6978 \times 10^{-4}$	1.4364×10^{3} $\pm 2.298 \times 10^{-3}$	2.8737 $\pm 4.5973 \times 10^{-6}$	1.1598 $\pm 4.1147 \times 10^{-3}$	4.1878 $\pm 1.4143 \times 10^{-2}$	2.3758
11	2.9039×10^{-2} $\pm 8.573 \times 10^{-5}$	$0.314\,15$ $\pm 0.174\,29$	1.9886 $\pm 6.6495 \times 10^{-4}$	1.4404×10^{3} $\pm 2.313 \times 10^{-3}$	2.8816 $\pm 4.6273 \times 10^{-6}$	1.1235 $\pm 4.0111 \times 10^{-3}$	4.1723 $\pm 1.4201 \times 10^{-2}$	2.3097
12	2.9887×10^{-2} $\pm 1.9375 \times 10^{-4}$	$0.326\,52$ $\pm 0.575\,26$	6.8088 $\pm 1.6506 \times 10^{-3}$	1.4453×10^{3} $\pm 3.662 \times 10^{-3}$	2.8913 $\pm 7.3261 \times 10^{-6}$	1.1855 $\pm 1.2222 \times 10^{-2}$	4.0406 $\pm 1.9598 \times 10^{-2}$	2.5875
13	2.8841×10^{-2} $\pm 2.9971 \times 10^{-4}$	$0.318\,21$ $\pm 0.408\,55$	7.0894 $\pm 1.913 \times 10^{-3}$	1.4455×10^{3} $\pm 3.1002 \times 10^{-3}$	2.8917 $\pm 6.2021 \times 10^{-6}$	1.1519 $\pm 1.0331 \times 10^{-2}$	4.0264 $\pm 2.1498 \times 10^{-2}$	2.4394
14	3.0706×10^{-2} $\pm 8.8885 \times 10^{-5}$	$0.196\,89$ $\pm 0.166\,07$	15.889 $\pm 6.6017 \times 10^{-4}$	1.4543×10^{3} $\pm 2.2689 \times 10^{-3}$	2.9094 $\pm 4.539 \times 10^{-6}$	1.1877 $\pm 4.1856 \times 10^{-3}$	4.2227 $\pm 1.4089 \times 10^{-2}$	2.5769

2.450 – 2.250 ppm

Osc.	a	ϕ (°)	f_1 (Hz)	f_2 (Hz)	f_2 (ppm)	η_1 (s^{-1})	η_2 (s^{-1})	$\int$
1	3.0288×10^{-2} $\pm 5.8497 \times 10^{-5}$	$-0.883\,76$ $\pm 0.111\,64$	-11.395 $\pm 4.4155 \times 10^{-4}$	1.1685×10^{3} $\pm 1.5159 \times 10^{-3}$	2.3376 $\pm 3.0327 \times 10^{-6}$	1.1691 $\pm 2.748 \times 10^{-3}$	4.216 $\pm 9.457 \times 10^{-3}$	2.4483
2	3.0172×10^{-2} $\pm 1.8479 \times 10^{-4}$	$-0.268\,56$ $\pm 0.451\,41$	-7.2843 $\pm 1.4289 \times 10^{-3}$	1.1725×10^{3} $\pm 1.2913 \times 10^{-3}$	2.3457 $\pm 2.5832 \times 10^{-6}$	1.1496 $\pm 8.1228 \times 10^{-3}$	4.0873 $\pm 1.6949 \times 10^{-2}$	2.5763
3	2.9612×10^{-2} $\pm 4.494 \times 10^{-5}$	$-0.347\,09$ $\pm 0.559\,25$	-7.0649 $\pm 1.3543 \times 10^{-3}$	1.1728×10^{3} $\pm 2.9686 \times 10^{-3}$	2.3463 $\pm 5.9388 \times 10^{-6}$	1.1425 $\pm 8.9311 \times 10^{-3}$	4.0861 $\pm 9.9536 \times 10^{-3}$	2.4799
4	2.9888×10^{-2} $\pm 5.7725 \times 10^{-5}$	$0.174\,75$ $\pm 0.112\,49$	-2.9568 $\pm 4.4026 \times 10^{-4}$	1.1769×10^{3} $\pm 1.5141 \times 10^{-3}$	2.3544 $\pm 3.0289 \times 10^{-6}$	1.1533 $\pm 2.7117 \times 10^{-3}$	4.1822 $\pm 9.371 \times 10^{-3}$	2.6234

Osc.	a	ϕ (°)	f_1 (Hz)	f_2 (Hz)	f_2 (ppm)	η_1 (s^{-1})	η_2 (s^{-1})	$\int$
5	2.9531×10^{-2} $\pm 5.7253 \times 10^{-5}$	-0.1399 ± 0.11341	2.9564 $\pm 4.4021 \times 10^{-4}$	1.1828×10^3 $\pm 1.5193 \times 10^{-3}$	2.3662 $\pm 3.0394 \times 10^{-6}$	1.1422 $\pm 2.7006 \times 10^{-3}$	4.1667 $\pm 9.3735 \times 10^{-3}$	2.5995
6	2.959×10^{-2} $\pm 3.8779 \times 10^{-5}$	0.5027 ± 0.48955	7.0656 $\pm 1.2899 \times 10^{-3}$	1.1868×10^3 $\pm 2.9406 \times 10^{-3}$	2.3743 $\pm 5.8828 \times 10^{-6}$	1.144 $\pm 7.9875 \times 10^{-3}$	4.0824 $\pm 1.0641 \times 10^{-2}$	2.4782
7	2.9999×10^{-2} $\pm 1.6193 \times 10^{-4}$	0.42142 ± 0.38501	7.284 $\pm 1.275 \times 10^{-3}$	1.1871×10^3 $\pm 1.3372 \times 10^{-3}$	2.3749 $\pm 2.6752 \times 10^{-6}$	1.1573 $\pm 7.792 \times 10^{-3}$	4.0217 $\pm 1.6548 \times 10^{-2}$	2.5617
8	3.0484×10^{-2} $\pm 5.8484 \times 10^{-5}$	0.91419 ± 0.11097	11.395 $\pm 4.3932 \times 10^{-4}$	1.1912×10^3 $\pm 1.5092 \times 10^{-3}$	2.383 $\pm 3.0192 \times 10^{-6}$	1.1722 $\pm 2.74 \times 10^{-3}$	4.2137 $\pm 9.3816 \times 10^{-3}$	2.4634

2.000 – 1.740 ppm

Osc.	a	ϕ (°)	f_1 (Hz)	f_2 (Hz)	f_2 (ppm)	η_1 (s^{-1})	η_2 (s^{-1})	$\int$
1	0.12297 $\pm 6.0486 \times 10^{-5}$	-0.32818 $\pm 2.8475 \times 10^{-2}$	-6.6489 $\pm 1.1253 \times 10^{-4}$	938.09 $\pm 3.9052 \times 10^{-4}$	1.8767 $\pm 7.8126 \times 10^{-7}$	1.1767 $\pm 7.0123 \times 10^{-4}$	4.2773 $\pm 2.4312 \times 10^{-3}$	9.6474
2	6.1868×10^{-2} $\pm 3.3673 \times 10^{-4}$	0.14623 ± 0.42015	-2.437 $\pm 8.1667 \times 10^{-4}$	942.25 $\pm 1.4063 \times 10^{-3}$	1.885 $\pm 2.8133 \times 10^{-6}$	1.181 $\pm 5.2026 \times 10^{-3}$	4.1811 $\pm 9.0494 \times 10^{-3}$	5.2759
3	5.6121×10^{-2} $\pm 3.4443 \times 10^{-4}$	5.0047×10^{-2} ± 0.44677	-2.1376 $\pm 9.5569 \times 10^{-4}$	942.63 $\pm 1.6096 \times 10^{-3}$	1.8858 $\pm 3.2201 \times 10^{-6}$	1.1129 $\pm 4.5261 \times 10^{-3}$	4.126 $\pm 8.717 \times 10^{-3}$	4.9611
4	5.9911×10^{-2} $\pm 3.9927 \times 10^{-4}$	0.13527 ± 0.45525	2.1409 $\pm 8.4521 \times 10^{-4}$	946.88 $\pm 1.3279 \times 10^{-3}$	1.8943 $\pm 2.6565 \times 10^{-6}$	1.1627 $\pm 6.2971 \times 10^{-3}$	4.1828 $\pm 8.7581 \times 10^{-3}$	5.225
5	5.899×10^{-2} $\pm 4.1785 \times 10^{-4}$	9.4644×10^{-2} ± 0.44491	2.4397 $\pm 1.055 \times 10^{-3}$	947.13 $\pm 1.4616 \times 10^{-3}$	1.8948 $\pm 2.9241 \times 10^{-6}$	1.156 $\pm 4.9892 \times 10^{-3}$	4.1483 $\pm 8.0332 \times 10^{-3}$	5.0616
6	0.12366 $\pm 6.0716 \times 10^{-5}$	0.31832 $\pm 2.8195 \times 10^{-2}$	6.649 $\pm 1.1206 \times 10^{-4}$	951.35 $\pm 3.8569 \times 10^{-4}$	1.9032 $\pm 7.7159 \times 10^{-7}$	1.1863 $\pm 7.0599 \times 10^{-4}$	4.2487 $\pm 2.4043 \times 10^{-3}$	9.724

1.550 – 1.350 ppm

Osc.	a	ϕ (°)	f_1 (Hz)	f_2 (Hz)	f_2 (ppm)	η_1 (s^{-1})	η_2 (s^{-1})	$\int$
1	2.9978×10^{-2} $\pm 6.4222 \times 10^{-5}$	-0.1796 ± 0.12519	-9.3677 $\pm 4.6964 \times 10^{-4}$	721.37 $\pm 1.6019 \times 10^{-3}$	1.4431 $\pm 3.2047 \times 10^{-6}$	1.15 $\pm 2.8867 \times 10^{-3}$	4.2066 $\pm 9.9559 \times 10^{-3}$	2.487

Osc.	a	ϕ (°)	f_1 (Hz)	f_2 (Hz)	f_2 (ppm)	η_1 (s⁻¹)	η_2 (s⁻¹)	$\int$
2	3.0096×10^{-2} $\pm 1.6859 \times 10^{-4}$	-3.3183×10^{-2} $\pm 0.324\,83$	-7.4049 $\pm 9.4831 \times 10^{-4}$	723.33 $\pm 2.0313 \times 10^{-3}$	1.4471 $\pm 4.0637 \times 10^{-6}$	1.1819 $\pm 5.4547 \times 10^{-3}$	4.1048 $\pm 1.1983 \times 10^{-2}$	2.3742
3	2.8998×10^{-2} $\pm 1.5588 \times 10^{-4}$	$-0.495\,04$ ± 0.3515	-6.946 $\pm 9.3004 \times 10^{-4}$	723.79 $\pm 2.023 \times 10^{-3}$	1.448 $\pm 4.0471 \times 10^{-6}$	1.143 $\pm 5.5087 \times 10^{-3}$	4.0825 $\pm 1.2299 \times 10^{-2}$	2.4834
4	2.988×10^{-2} $\pm 6.3904 \times 10^{-5}$	$-0.352\,85$ $\pm 0.125\,51$	-4.9838 $\pm 4.7006 \times 10^{-4}$	725.74 $\pm 1.5984 \times 10^{-3}$	1.4519 $\pm 3.1977 \times 10^{-6}$	1.1473 $\pm 2.8745 \times 10^{-3}$	4.1877 $\pm 9.8864 \times 10^{-3}$	2.464
5	2.975×10^{-2} $\pm 6.4059 \times 10^{-5}$	$0.650\,12$ $\pm 0.125\,91$	4.9821 $\pm 4.7091 \times 10^{-4}$	735.68 $\pm 1.6035 \times 10^{-3}$	1.4718 $\pm 3.2079 \times 10^{-6}$	1.1499 $\pm 2.9054 \times 10^{-3}$	4.1762 $\pm 9.8857 \times 10^{-3}$	2.4618
6	2.967×10^{-2} $\pm 1.604 \times 10^{-4}$	$0.714\,53$ $\pm 0.346\,06$	6.9451 $\pm 9.19 \times 10^{-4}$	737.62 $\pm 2.0151 \times 10^{-3}$	1.4756 $\pm 4.0313 \times 10^{-6}$	1.1666 $\pm 5.6663 \times 10^{-3}$	4.1144 $\pm 1.2384 \times 10^{-2}$	2.5312
7	3.0153×10^{-2} $\pm 1.7329 \times 10^{-4}$	$0.468\,39$ $\pm 0.320\,38$	7.4055 $\pm 9.3625 \times 10^{-4}$	738.08 $\pm 2.0363 \times 10^{-3}$	1.4766 $\pm 4.0737 \times 10^{-6}$	1.1818 $\pm 5.5578 \times 10^{-3}$	4.1231 $\pm 1.2114 \times 10^{-2}$	2.3808
8	3.0108×10^{-2} $\pm 6.4641 \times 10^{-5}$	$0.309\,88$ $\pm 0.124\,99$	9.3676 $\pm 4.7166 \times 10^{-4}$	740.04 $\pm 1.6028 \times 10^{-3}$	1.4805 $\pm 3.2064 \times 10^{-6}$	1.1639 $\pm 2.9297 \times 10^{-3}$	4.1923 $\pm 9.8853 \times 10^{-3}$	2.4968

1.350 - 1.200 ppm

Osc.	a	ϕ (°)	f_1 (Hz)	f_2 (Hz)	f_2 (ppm)	η_1 (s⁻¹)	η_2 (s⁻¹)	$\int$
1	2.9839×10^{-2} $\pm 6.018 \times 10^{-5}$	$-0.142\,07$ $\pm 0.117\,54$	-8.5035 $\pm 4.6138 \times 10^{-4}$	629.37 $\pm 1.5849 \times 10^{-3}$	1.2591 $\pm 3.1707 \times 10^{-6}$	1.1526 $\pm 2.8362 \times 10^{-3}$	4.18 $\pm 9.8138 \times 10^{-3}$	2.5443
2	6.066×10^{-2} $\pm 6.1387 \times 10^{-5}$	$-0.315\,91$ $\pm 5.8541 \times 10^{-2}$	-5.2052 $\pm 2.3137 \times 10^{-4}$	632.65 $\pm 7.9198 \times 10^{-4}$	1.2656 $\pm 1.5844 \times 10^{-6}$	1.1722 $\pm 1.4421 \times 10^{-3}$	4.1975 $\pm 4.9054 \times 10^{-3}$	5.125
3	2.937×10^{-2} $\pm 5.9519 \times 10^{-5}$	$0.488\,96$ $\pm 0.119\,25$	-1.9108 $\pm 4.6116 \times 10^{-4}$	635.93 $\pm 1.5811 \times 10^{-3}$	1.2722 $\pm 3.1631 \times 10^{-6}$	1.1354 $\pm 2.8035 \times 10^{-3}$	4.1376 $\pm 9.7349 \times 10^{-3}$	2.346
4	2.9818×10^{-2} $\pm 6.0478 \times 10^{-5}$	$0.491\,09$ $\pm 0.118\,24$	1.9093 $\pm 4.6213 \times 10^{-4}$	639.73 $\pm 1.5907 \times 10^{-3}$	1.2798 $\pm 3.1822 \times 10^{-6}$	1.1499 $\pm 2.8362 \times 10^{-3}$	4.1911 $\pm 9.8675 \times 10^{-3}$	2.3799
5	6.0945×10^{-2} $\pm 6.1657 \times 10^{-5}$	0.7304 $\pm 5.837 \times 10^{-2}$	5.2049 $\pm 2.3123 \times 10^{-4}$	643.01 $\pm 7.9237 \times 10^{-4}$	1.2864 $\pm 1.5852 \times 10^{-6}$	1.1765 $\pm 1.447 \times 10^{-3}$	4.2091 $\pm 4.9152 \times 10^{-3}$	5.1438
6	2.9908×10^{-2} $\pm 6.0251 \times 10^{-5}$	$0.762\,37$ $\pm 0.117\,28$	8.5021 $\pm 4.6128 \times 10^{-4}$	646.29 $\pm 1.5786 \times 10^{-3}$	1.2929 $\pm 3.158 \times 10^{-6}$	1.1578 $\pm 2.848 \times 10^{-3}$	4.1685 $\pm 9.7709 \times 10^{-3}$	2.5498