

Time	Coherence	Qubit	Material	Host	Date	Reference	Source	
57 s	$T_1$	LD/e	GaAs/AlGaAs	2D	2018-08	1	p3 and Fig. 4a	1
30 s	$T_1$	LD/i	Si:P	imp	2017-03	2	Fig. 2b the lowest point	2
10 s	$T_1$	LD/e	GaAs/AlGaAs	2D	2017-10	3	Fig. 2 the lowest green point	3
9.8 s	$T_1$	LD/i	Si:P	imp	2019-05	4	Fig. 2c	4
9.3 s	$T_1$	LD/i	Si:P	imp	2018-03	5	p3 and Fig. 1f	5
9 s	$T_1$	LD/e	Si/SiO <sub>2</sub>	1D	2021-03	6	p3 and Fig. 3a the leftmost blue point	6
6 s	$T_1$	LD/i	Si:P	imp	2010-09	7	p2	7
5 s <sup>a</sup>	$T_1$	LD/e	Si/SiGe	2D	2019-04	8	p4	8
4.2 s	$T_1$	LD/i	Si:P	imp	2019-01	9	p3	9
3.4 s	$T_1$	LD/i	<sup>28</sup> Si:P	imp	2021-01	10	p6 and SFig. 3c	10
3 s	$T_1$	LD/i	<sup>28</sup> Si:P	imp	2016-10	11	p3	11
3 s	$T_1$	ST/e	Si/SiGe	2D	2012-01	12	p4	12
2.8 s	$T_1$	LD/e	Si/SiGe	2D	2011-04	13	p3 and Fig. 3	13
2.6 s	$T_1$	LD/e	Si/SiO <sub>2</sub>	2D	2013-06	14	p3	14
1.8 s	$T_1$	LD/i	Si:P	imp	2013-06	15	Fig. 3	15
1.6 s	$T_1$	LD/e	<sup>28</sup> Si/SiO <sub>2</sub>	2D	2022-03	16	p4 and Fig. 3c	16
1.3 s	$T_1$	LD/i <sup>b</sup>	<sup>28</sup> Si:P	imp	2016-10	17	p4	17
1.3 s	$T_1$	LD/i	Si:P	imp	2018-11	18	p3 and Fig. 2b	18
1 s	$T_1$	LD/e	GaAs/AlGaAs	2D	2008-01	19	p4 and Fig. 3c the leftmost blue point	19
1 s	$T_1$	LD/e	<sup>28</sup> Si/SiO <sub>2</sub>	2D	2018-10	20	p2	20
1 s	$T_1$	LD/e	<sup>28</sup> Si/SiGe	2D	2020-03	21	p6 and Fig. 4a	21
0.7 s	$T_1$	LD/i	Si:P	imp	2012-09	22	p3	22
0.6 s <sup>c</sup>	$T_1$	LD/e	Si/SiGe	2D	2009-08	23	Fig. 5	23
0.5 s <sup>d</sup>	$T_1$	ST/e	<sup>28</sup> Si/SiO <sub>2</sub>	2D	2020-04	24	Fig. 4 the leftmost black point	24
0.17 s	$T_1$	LD/e	Si/SiGe	2D	2016-11	25	Fig. 6	25
0.16 s <sup>e</sup>	$T_1$	LD/e	Si/SiGe	2D	2019-04	8	Fig. 2	26
0.15 s <sup>f</sup>	$T_1$	LD/e	<sup>28</sup> Si/SiO <sub>2</sub>	2D	2018-08	26	p2 and p4	27
0.14 s	$T_1$	ST/e	Si/SiGe	2D	2012-04	27	Fig. 2d	28
0.13 s	$T_1$	LD/e	<sup>28</sup> Si/SiGe	2D	2019-11	28	p4	29
90 ms	$T_1$	LD/e	Si/SiO <sub>2</sub>	2D	2020-06	29	Fig. 1c	30
85 ms	$T_1$	LD/e	GaAs/AlGaAs	2D	2014-12	30	p2 and Fig. 3	31
50 ms	$T_1$	LD/e	Si/SiGe	2D	2018-02	31	p1 and ED Fig. 3b	32
40 ms	$T_1$	LD/e	Si/SiO <sub>2</sub>	2D	2010-03	32	p4 and Fig. 4 the leftmost red point	33
32 ms	$T_1$	LD/h	Ge/SiGe	2D	2020-08	33	p3	34
32 ms	$T_1$	LD/e	<sup>28</sup> Si/SiGe	2D	2022-12	34	p3	35
22 ms <sup>g</sup>	$T_1$	LD/e	Si/SiGe	2D	2022-08	35	p2 and ED Fig. 4b-d	36
20 ms	$T_1$	HY/e <sup>h</sup>	<sup>28</sup> Si/SiGe	2D	2021-12	36	p4	37
16 ms	$T_1$	LD/h	Ge/SiGe	2D	2021-03	37	Fig. S5 dot 3	38
15 ms <sup>i</sup>	$T_1$	ST/e	<sup>28</sup> Si/SiO <sub>2</sub>	2D	2020-04	24	Fig. 4 the rightmost black point	39
10 ms	$T_1$	LD/e	Si/SiO <sub>2</sub>	1D	2021-09	38	p2 and Fig. 2a	40
8.4 ms	$T_1$	LD/h	BLG	2D	2022-05	39	p5 and Fig. 4	41
5 ms	$T_1$	LD/i	<sup>28</sup> Si:B	imp	2020-07	40	p3 and Fig. 3b	42
5 ms <sup>j</sup>	$T_1$	ST/e	<sup>28</sup> Si/SiO <sub>2</sub>	2D	2021-01	41	p4 and Fig. 1d	43
4.1 ms	$T_1$	ST/i	Si:P	imp	2014-06	42		44
3.7 ms	$T_1$	LD/e	GaAs/AlGaAs	2D	2016-07	43	p3 and Fig. 2	45
3.7 ms	$T_1$	LD/e <sup>k</sup>	<sup>28</sup> Si/SiO <sub>2</sub>	2D	2020-04	44	p2	46
3.1 ms	$T_1$	LD/i	<sup>28</sup> Si:P	imp	2022-01	45	ED Fig. 3 first column	47
2.8 ms <sup>l</sup>	$T_1$	LD/e	<sup>28</sup> Si/SiO <sub>2</sub>	2D	2018-08	26	p4 and Fig. 3a	48
2.3 ms <sup>m</sup>	$T_1$	ST/e	GaAs/AlGaAs	2D	2007-03	46	p2	49
1.5 ms	$T_1$	LD/e	GaAs/AlGaAs	2D	2019-04	47	Fig. 2	50

TABLE I-1. Spin coherence times (part 1). Superscripts stand for the following. <sup>a</sup>: No micromagnet. <sup>b</sup>: Qubit defined in the rotating frame. <sup>c</sup>: (estimated) Fig. 5 the lowest point. <sup>d</sup>: At 0.04 kelvin. <sup>e</sup>: With micromagnet. <sup>f</sup>: At 0.1 kelvin. <sup>g</sup>: The average over the three qubits. <sup>h</sup>: EO qubit. <sup>i</sup>: At 1.5 kelvin. <sup>j</sup>: Lifetime of  $T_-$  state. <sup>k</sup>: At 1 kelvin. <sup>l</sup>: At 1.1 kelvin. <sup>m</sup>: Triplet-singlet relaxation in a single dot.

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