| 30 | Time | Coherence | Qubit | Material | Host | Date | Reference | Source | 0 |
|--|--------------------|-----------|-------------------|-----------------------------------|------|---------|-----------|--|-----|
| 30 s | 57 s | T_1 | LD/e | GaAs/AlGaAs | 2D | 2018-08 | 1 | p3 and Fig. 4a | 1 |
| 16 | | | | | | | 2 | ~ - | 2 |
| 11 | | | LD/i | | | | | | 3 |
| 10 | 11 s ^a | | | | imp | 2023-02 | 4 | p6 | 4 |
| 9.8 s | 10 s | | LD/e | | 2D | 2017-10 | 5 | - | 5 |
| 9.3 s | 9.8 s | | | | imp | | 6 | | 6 |
| 9 S T ₁ LD/c Si/SiO ₂ 1D 2021-03 8 p3 and Fig. 3a the leftmost blue point 6.5 s T ₁ LD/i Si:P imp 2013-02 9 Fig. 3c 6 s T ₁ LD/i Si:P imp 2019-04 11 p4 p2 4.2 s T ₁ LD/i Si/Fig. imp 2019-01 12 p3 1 3.4 s T ₁ LD/i Si/Fig. imp 2016-10 14 p3 1 2.8 s T ₁ LD/c Si/SiGe 2D 2011-04 16 p3 and Fig. 3 1 2.6 s T ₁ LD/c Si/SiGe 2D 2011-04 16 p3 and Fig. 3 1 2.8 s T ₁ LD/c Si/SiGe 2D 2011-04 16 p3 and Fig. 3 1 2.8 s T ₁ LD/c Si/SiGe 2D 2011-04 16 | | | LD/i | | imp | | 7 | | 7 |
| 6.5 s | | | | | 1Ď | 2021-03 | 8 | | . 8 |
| 6 s T ₁ LD/le Si/Pic imp 2010-09 10 p2 1 4.2 s T ₁ LD/le Si/Pic 2D 2019-04 11 p4 14 p4 14 p3 1 p4 1 p3 1 p4 1 p3 1 1 p4 1 p3 1 1 p4 1 p3 1 1 p4 1 p4 1 <td< td=""><td>6.5 s</td><td></td><td>LD/i</td><td></td><td>imp</td><td>2023-02</td><td>9</td><td>Fig. 3c</td><td>9</td></td<> | 6.5 s | | LD/i | | imp | 2023-02 | 9 | Fig. 3c | 9 |
| S | 6 s | | LD/i | Si:P | imp | 2010-09 | 10 | p2 | 10 |
| 4.2 s T ₁ LD/i Si:P imp 2019-01 12 p3 p6 and SFig. 3c 1 1 1 1 1 1 1 1 1 | 5 s ^b | | LD/e | Si/SiGe | 2D | 2019-04 | 11 | p4 | 11 |
| 3 s T ₁ LD/i 28Si:P imp 2016-10 14 p3 p3 1 3 s T ₁ ST/e Si/SiGe 2D 2012-01 15 p4 1 2.8 s T ₁ LD/e Si/SiGe 2D 2011-04 16 p3 and Fig. 3 1 2.6 s T ₁ LD/e Si/SiGo 2D 2013-06 17 p3 p3 1 1.8 s T ₁ LD/i Si:P imp 2013-06 18 Fig. 3 1 1.6 s T ₁ LD/e 28Si/SiO ₂ 2D 2022-03 19 p4 and Fig. 3c 1 1.3 s T ₁ LD/i Si:P imp 2016-10 20 p4 p4 1 1.3 s T ₁ LD/i Si:P imp 2016-10 20 p4 p4 1 1.3 s T ₁ LD/e 28Si/SiO ₂ 2D 2020-03 22 p6 and Fig. 4a 2 1 s T ₁ LD/e 28Si/SiGe 2D 2020-03 22 p6 and Fig. 4a 2 1 s T ₁ LD/e Si/SiGe 2D 2008-01 24 p4 and Fig. 3c the leftmost blue point 2 1 s T ₁ LD/e Si/SiGe 2D 2009-08 26 Fig. 5 p3 p3 2 0.6 s ^d T ₁ LD/e Si/SiGe 2D 2009-08 26 Fig. 5 p3 p3 2 0.5 s ^e T ₁ ST/e 28Si/SiO ₂ 2D 2016-11 28 Fig. 6 p2 and p4 11 Fig. 2 0.17 s T ₁ LD/e Si/SiGe 2D 2016-11 28 Fig. 6 p2 and p4 11 Fig. 2 0.18 s T ₁ LD/e Si/SiGe 2D 2016-11 28 Fig. 6 p2 and p4 11 Fig. 2 0.15 s ^e T ₁ LD/e Si/SiGe 2D 2012-04 30 Fig. 2 p2 and p4 11 Fig. 2 0.13 s T ₁ LD/e 28Si/SiO ₂ 2D 2012-04 30 Fig. 2 p2 and p4 11 Fig. 2 0.13 s T ₁ LD/e 28Si/SiO ₂ 2D 2012-04 30 Fig. 1 p4 11 Fig. 2 p2 and p4 11 Fig. 1 p4 11 Fig. 2 p2 and p4 11 Fig. 1 p4 11 Fig. 2 p2 and p4 11 Fig. 1 p4 11 Fig. 1 p4 11 Fig. 1 p4 11 Fig. 1 p4 11 Fig. 2 p2 and p4 11 Fig. 1 p4 11 Fig. 2 p2 and p4 11 Fig. 1 p4 11 Fig. 2 p2 and p4 11 Fig. 1 p4 11 Fig. 2 p2 and p4 11 Fig. 1 p4 11 Fig. 2 p2 and p4 11 Fig. 1 p4 11 Fig. 2 p2 and p4 11 Fig. 1 p4 11 Fig. 2 p2 and p4 11 Fig. 1 p4 11 Fig. 2 p2 and p4 11 Fig. 1 p4 11 Fig. 2 p2 and p4 11 Fig. 1 p4 11 Fig. 2 p2 and p4 11 Fig. 2 p2 and p4 11 Fig. 1 p4 11 Fig. 2 p2 and p4 11 Fig. | 4.2 s | | LD/i | Si:P | imp | 2019-01 | 12 | p3 | 12 |
| 3 s T ₁ LD/i 28SiFP imp 2016-10 14 p3 p4 p4 p4 p4 p4 p3 p4 p4 p4 p3 p4 p4 p4 p3 p4 p4 p4 p3 p4 p4 p4 p3 p4 p4 p4 p4 p4 p5 p5 p4 p4 p4 p4 p5 p5 p6 p4 p4 p4 p4 p5 p5 p4 p4 p4 p4 p5 p5 p4 p4 p4 p6 p5 p6 p4 p4 p5 p6 p4 p4 p6 p5 p6 p4 p4 p6 p5 p6 p4 p4 p6 p5 p6 | 3.4 s | T_1 | LD/i | ²⁸ Si:P | imp | 2021-01 | 13 | p6 and SFig. 3c | 13 |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 3 s | | LD/i | ²⁸ Si:P | imp | 2016-10 | 14 | p3 | 14 |
| 2.6 s | 3 s | | ST/e | Si/SiGe | 2D | 2012-01 | 15 | p4 | 15 |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 2.8 s | | LD/e | Si/SiGe | 2D | 2011-04 | 16 | p3 and Fig. 3 | 16 |
| 1.6 s | 2.6 s | T_1 | LD/e | | | | 17 | p3 | 17 |
| 1.3 s | 1.8 s | T_1 | LD/i | | imp | 2013-06 | 18 | Fig. 3 | 18 |
| 1.3 s | 1.6 s | T_1 | LD/e | ²⁸ Si/SiO ₂ | 2D | 2022-03 | 19 | p4 and Fig. 3c | 19 |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 1.3 s | T_1 | LD/ic | | imp | 2016-10 | 20 | | 20 |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 1.3 s | T_1 | LD/i | Si:P | imp | 2018-11 | 21 | p3 and Fig. 2b | 21 |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 1 s | T_1 | LD/e | | 2D | 2020-03 | 22 | p6 and Fig. 4a | 22 |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 1 s | T_1 | LD/e | ²⁸ Si/SiO ₂ | 2D | 2018-10 | 23 | p2 | 23 |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 1 s | T_1 | LD/e | GaAs/AlGaAs | 2D | 2008-01 | 24 | p4 and Fig. 3c the leftmost blue point | 24 |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | | T_1 | LD/i | Si:P | imp | 2012-09 | 25 | p3 | 25 |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 0.6 s ^d | T_1 | LD/e | Si/SiGe | 2D | 2009-08 | 26 | Fig. 5 | 26 |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | $0.5 	 s^e$ | | ST/e | ²⁸ Si/SiO ₂ | 2D | 2020-04 | 27 | Fig. 4 the leftmost black point | 27 |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 0.17 s | T_1 | LD/e | Si/SiGe | 2D | 2016-11 | 28 | Fig. 6 | 28 |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | $0.16 s^{f}$ | T_1 | LD/e | Si/SiGe | 2D | 2019-04 | 11 | Fig. 2 | 29 |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | $0.15 	 s^g$ | T_1 | LD/e | ²⁸ Si/SiO ₂ | 2D | 2018-08 | 29 | p2 and p4 | 30 |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 0.14 s | T_1 | ST/e | Si/SiGe | 2D | | 30 | Fig. 2d | 31 |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 0.13 s | T_1 | LD/e | ²⁸ Si/SiGe | | 2019-11 | | p4 | 32 |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 90 ms | | LD/e | Si/SiO ₂ | 2D | 2020-06 | 32 | Fig. 1c | 33 |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 85 ms | T_1 | LD/e | GaAs/AlGaAs | 2D | 2014-12 | | p2 and Fig. 3 | 34 |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 50 ms | | LD/e | Si/SiGe | 2D | 2018-02 | 34 | p1 and ED Fig. 3b | 35 |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | | | | | | 2010-03 | | | 36 |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | | | | | 2D | | | | 37 |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | | | | | | | | p3 | 38 |
| $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | | | LD/e | | | | | | 39 |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | | | | | | | | | 40 |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 20 ms | T_1 | HY/e ⁱ | ²⁸ Si/SiGe | 2D | 2022-03 | 40 | | 41 |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | | | | | | | | | 42 |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | | | | | | | | | 43 |
| 8.4 ms T_1 LD/h BLG 2D 2022-05 44 p5 and Fig. 4 4 5 ms T_1 LD/i 28 Si:B imp 2020-07 45 p3 and Fig. 3b 4 5 ms T_1 ST/e 28 Si/SiO ₂ 2D 2021-01 46 p4 and Fig. 1d 4 | | | | | | | | * | 44 |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | | | | _ | | | | | 45 |
| 5 ms ¹ T_1 ST/e ²⁸ Si/SiO ₂ 2D 2021-01 46 p4 and Fig. 1d | | | | | | | | | 46 |
| | | | | | - | | | | 47 |
| 4.1 ms T_1 ST/i Si:P imp 2014-06 47 | | | | | | | | p4 and Fig. 1d | 48 |
| | | | ST/i | Si:P | | 2014-06 | 47 | | 49 |
| 3.7 ms T_1 LD/e GaAs/AlGaAs 2D 2016-07 48 p3 and Fig. 2 | 3.7 ms | T_1 | LD/e | GaAs/AlGaAs | 2D | 2016-07 | 48 | p3 and Fig. 2 | 50 |

TABLE I-1. Spin coherence times (part 1). Superscripts stand for the following. ^a: Dot D3. ^b: No micromagnet. ^c: Qubit defined in the rotating frame. ^d: (*estimated*) Fig. 5 the lowest point. ^e: At 0.04 K. ^f: With micromagnet. ^g: At 0.1 K. ^h: The average over the three qubits. ⁱ: EO qubit. ^j: At 1.5 K. ^k: At 1 K. ^l: Lifetime of T_- state.

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