Junichi Isoya

List of Publications by Year
in descending order

50 papers	6,429 citations	117625 34 h-index	206112 48 g-index
51 all docs	51 docs citations	51 times ranked	5163 citing authors

#	Article	IF	Citations
1	Negatively charged boron vacancy center in diamond. Physical Review B, 2022, 105, .	3.2	3
2	Photoluminescence at the ground-state level anticrossing of the nitrogen-vacancy center in diamond: A comprehensive study. Physical Review B, 2021, 103, .	3.2	16
3	Integrated and Portable Magnetometer Based on Nitrogenâ€Vacancy Ensembles in Diamond. Advanced Quantum Technologies, 2021, 4, 2000111.	3.9	60
4	Imaging Damage in Steel Using a Diamond Magnetometer. Physical Review Applied, 2021, 15, .	3.8	7
5	Heterodyne sensing of microwaves with a quantum sensor. Nature Communications, 2021, 12, 2737.	12.8	38
6	Diamond Magnetometry and Gradiometry Towards Subpicotesla dc Field Measurement. Physical Review Applied, 2021, 15, .	3.8	49
7	Efficient conversion of nitrogen to nitrogen-vacancy centers in diamond particles with high-temperature electron irradiation. Carbon, 2020, 170, 182-190.	10.3	25
8	Microwave-Free Vector Magnetometry with Nitrogen-Vacancy Centers along a Single Axis in Diamond. Physical Review Applied, 2020, 13, .	3.8	36
9	Quantum Metrology with Strongly Interacting Spin Systems. Physical Review X, 2020, 10, .	8.9	52
10	Robust and Accurate Electric Field Sensing with Solid State Spin Ensembles. Nano Letters, 2019, 19, 4904-4910.	9.1	68
11	Zero-Field Magnetometry Based on Nitrogen-Vacancy Ensembles in Diamond. Physical Review Applied, 2019, 11, .	3.8	58
12	Probing Quantum Thermalization of a Disordered Dipolar Spin Ensemble with Discrete Time-Crystalline Order. Physical Review Letters, 2019, 122, 043603.	7.8	33
13	Nitrogen-Terminated Diamond Surface for Nanoscale NMR by Shallow Nitrogen-Vacancy Centers. Journal of Physical Chemistry C, 2019, 123, 3594-3604.	3.1	46
14	Triple nitrogen-vacancy centre fabrication by C5N4Hn ion implantation. Nature Communications, 2019, 10, 2664.	12.8	33
15	High-resolution spectroscopy of single nuclear spins via sequential weak measurements. Nature Communications, 2019, 10, 594.	12.8	60
16	Photoelectrical imaging and coherent spin-state readout of single nitrogen-vacancy centers in diamond. Science, 2019, 363, 728-731.	12.6	120
17	Coherent electrical readout of defect spins in silicon carbide by photo-ionization at ambient conditions. Nature Communications, 2019, 10, 5569.	12.8	43
18	Solid-state electron spin lifetime limited by phononic vacuum modes. Nature Materials, 2018, 17, 313-317.	27.5	53

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19	Superradiant emission from colour centres in diamond. Nature Physics, 2018, 14, 1168-1172.	16.7	106
20	Lithographically engineered shallow nitrogen-vacancy centers in diamond for external nuclear spin sensing. New Journal of Physics, 2018, 20, 083029.	2.9	18
21	Nanoscale nuclear magnetic resonance with chemical resolution. Science, 2017, 357, 67-71.	12.6	240
22	Nonvolatile nuclear spin memory enables sensor-unlimited nanoscale spectroscopy of small spin clusters. Nature Communications, 2017, 8, 834.	12.8	53
23	Protecting a Diamond Quantum Memory by Charge State Control. Nano Letters, 2017, 17, 5931-5937.	9.1	66
24	Charge state stabilization of shallow nitrogen vacancy centers in diamond by oxygen surface modification. Japanese Journal of Applied Physics, 2017, 56, 04CK08.	1.5	46
25	Diffusion of Vacancies Created by Highâ€Energy Heavy Ion Strike Into Diamond. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1700160.	1.8	13
26	Collective strong coupling with homogeneous Rabi frequencies using a 3D lumped element microwave resonator. Applied Physics Letters, 2016, 109, 033508.	3.3	27
27	Optically induced dynamic nuclear spin polarisation in diamond. New Journal of Physics, 2016, 18, 013040.	2.9	65
28	Storage and retrieval of microwave fields at the single-photon level in a spin ensemble. Physical Review A, 2015, 92, .	2.5	52
29	Homoepitaxial diamond film growth: High purity, high crystalline quality, isotopic enrichment, and single color center formation. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 2365-2384.	1.8	68
30	Local and bulk 13C hyperpolarization in nitrogen-vacancy-centred diamonds at variable fields and orientations. Nature Communications, 2015, 6, 8456.	12.8	83
31	Single spin optically detected magnetic resonance with 60â€“90 GHz (E-band) microwave resonators. Review of Scientific Instruments, 2015, 86, 064704.	1.3	26
32	All-Optical Initialization, Readout, and Coherent Preparation of Single Silicon-Vacancy Spins in Diamond. Physical Review Letters, 2014, 113, 263602.	7.8	216
33	Multiple intrinsically identical single-photon emitters in the solid state. Nature Communications, 2014, 5, 4739.	12.8	232
34	Isotopic identification of engineered nitrogen-vacancy spin qubits in ultrapure diamond. Physical Review B, 2014, 90, .	3.2	10
35	Quantum error correction in a solid-state hybrid spin register. Nature, 2014, 506, 204-207.	27.8	475
36	Indistinguishable Photons from Separated Silicon-Vacancy Centers in Diamond. Physical Review Letters, 2014, 113, 113602.	7.8	333

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37	Nuclear magnetic resonance spectroscopy with single spin sensitivity. Nature Communications, 2014, 5, 4703.	12.8	211
38	Extending spin coherence times of diamond qubits by high-temperature annealing. Physical Review B, 2013, 88, .	3.2	122
39	High-Precision Nanoscale Temperature Sensing Using Single Defects in Diamond. Nano Letters, 2013, 13, 2738-2742.	9.1	572
40	Strongly coupled diamond spin qubits by molecular nitrogen implantation. Physical Review B, 2013, 88, .	3.2	41
41	Long coherence time of spin qubits in ¹²C enriched polycrystalline chemical vapor deposition diamond. Applied Physics Letters, 2012, 101, 012405.	3.3	56
42	Negative-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>U</mml:mi></mml:math>System of Carbon Vacancy in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mn>4</mml:mn><mml:mi>H</mml:mi></mml:math>-SiC. Physical Review Letters, 2012, 109, 187603.	7.8	219
43	Sensing single remote nuclear spins. Nature Nanotechnology, 2012, 7, 657-662.	31.5	217
44	Hybrid Quantum Circuit with a Superconducting Qubit Coupled to a Spin Ensemble. Physical Review Letters, 2011, 107, 220501.	7.8	335
45	Ultralong spin coherence time in isotopically engineered diamond. Nature Materials, 2009, 8, 383-387.	27.5	1,596
46	EPR Identification of Defects and Impurities in SiC: To be Decisive. Materials Science Forum, 2008, 600-603, 279-284.	0.3	2
47	A web-based database for EPR centers in semiconductors. Physica B: Condensed Matter, 2006, 376-377, 249-252.	2.7	12
48	Continuous-wave and pulsed EPR study of the negatively charged silicon vacancy withS=32andC3vsymmetry inn-type4Hâˆ’SiC. Physical Review B, 2002, 66, .	3.2	113
49	Electrically Detected Magnetic Resonance (EDMR) Studies of SiC-SiO₂ Interfaces. Materials Science Forum, 0, 717-720, 427-432.	0.3	4
50	Creation of multiple NV centers by phthalocyanine ion implantation. Applied Physics Express, 0, , .	2.4	0