David A Simpson

List of Publications by Year
in descending order

78 papers	5,227 citations	109264 35 h-index	106281 65 g-index
80 all docs	80 docs citations	80 times ranked	5511 citing authors

#	Article	IF	Citations
1	Creation of nitrogen-vacancy centers in chemical vapor deposition diamond for sensing applications. New Journal of Physics, 2022, 24, 033030.	1.2	28
2	Optimizing Optical Tweezers Experiments for Magnetic Resonance Sensing with Nanodiamonds. ACS Photonics, 2021, 8, 1214-1221.	3.2	13
3	Preferential coupling of diamond NV centres in step-index fibres. Optics Express, 2021, 29, 14425.	1.7	5
4	Re-examining ferritin-bound iron: current and developing clinical tools. Clinical Chemistry and Laboratory Medicine, 2021, 59, 459-471.	1.4	8
5	Advances in the Surface Functionalization of Nanodiamonds for Biological Applications: A Review. ACS Applied Nano Materials, 2021, 4, 9985-10005.	2.4	28
6	Quantum magnetic imaging of iron organelles within the pigeon cochlea. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	14
7	Acoustomicrofluidic Concentration and Signal Enhancement of Fluorescent Nanodiamond Sensors. Analytical Chemistry, 2021, 93, 16133-16141.	3.2	12
8	An integrated widefield probe for practical diamond nitrogen-vacancy microscopy. Applied Physics Letters, 2021, 119, .	1.5	5
9	A practical guide to laboratory investigations at diagnosis and follow up in WaldenstrÅ¶m macroglobulinaemia: recommendations from the Medical and Scientific Advisory Group, Myeloma Australia, the Pathology Sub-committee of the Lymphoma and Related Diseases Registry and the Australasian Association of Clinical Biochemists Monoclonal Gammopathy Working Group. Pathology, 2020, 52, 167-178.	0.3	23
10	Electrospun Nanodiamondâ€“Silk Fibroin Membranes: A Multifunctional Platform for Biosensing and Wound-Healing Applications. ACS Applied Materials & Interfaces, 2020, 12, 48408-48419.	4.0	50
11	Fluorescent diamond microparticle doped glass fiber for magnetic field sensing. APL Materials, 2020, 8, .	2.2	24
12	Quantum Magnetic Imaging of Iron Biomineralization in Teeth of the Chiton Acanthopleura hirtosa. Small Methods, 2020, 4, 1900754.	4.6	27
13	Enhanced Widefield Quantum Sensing with Nitrogen-Vacancy Ensembles Using Diamond Nanopillar Arrays. ACS Applied Materials & Interfaces, 2020, 12, 13421-13427.	4.0	33
14	Comparison of different methods of nitrogen-vacancy layer formation in diamond for wide-field quantum microscopy. Physical Review Materials, 2020, 4, .	0.9	14
15	Not All Fluorescent Nanodiamonds Are Created Equal: A Comparative Study. Particle and Particle Systems Characterization, 2019, 36, 1900009.	1.2	56
16	Apparent delocalization of the current density in metallic wires observed with diamond nitrogen-vacancy magnetometry. Physical Review B, 2019, 99, .	1.1	14
17	Microscopic Imaging of the Stress Tensor in Diamond Using in Situ Quantum Sensors. Nano Letters, 2019, 19, 4543-4550.	4.5	51
18	Magnetic Materials: Rapid, Highâ€Resolution Magnetic Microscopy of Single Magnetic Microbeads (Small) Tj ETQq0 0 0 rgBT /Overlock	5.2	0

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19	Quantum Sensing in a Physiologicalâ€Like Cell Niche Using Fluorescent Nanodiamonds Embedded in Electrospun Polymer Nanofibers. Small, 2019, 15, e1900455.	5.2	18
20	Rapid, Highâ€Resolution Magnetic Microscopy of Single Magnetic Microbeads. Small, 2019, 15, 1805159.	5.2	16
21	Quantum probes for biology: Unlocking single molecule dynamics. Nano Today, 2019, 24, 7-9.	6.2	3
22	Imaging with NV ensembles: beyond magnetometry. , 2019, , .		0
23	Spin properties of dense near-surface ensembles of nitrogen-vacancy centers in diamond. Physical Review B, 2018, 97, .	1.1	76
24	Magnetically sensitive nanodiamond-doped tellurite glass fibers. Scientific Reports, 2018, 8, 1268.	1.6	44
25	Impact of Surface Functionalization on the Quantum Coherence of Nitrogen-Vacancy Centers in Nanodiamonds. ACS Applied Materials & Interfaces, 2018, 10, 13143-13149.	4.0	36
26	Manipulating the Quantum Coherence of Optically Trapped Nanodiamonds. ACS Photonics, 2018, 5, 4491-4496.	3.2	8
27	Proximity-Induced Artefacts in Magnetic Imaging with Nitrogen-Vacancy Ensembles in Diamond. Sensors, 2018, 18, 1290.	2.1	18
28	Quantum probe hyperpolarisation of molecular nuclear spins. Nature Communications, 2018, 9, 1246.	5.8	53
29	Magnetic noise from ultrathin abrasively deposited materials on diamond. Physical Review Materials, 2018, 2, .	0.9	10
30	Infrared induced photo-dynamics of NV centres in optically trapped nanodiamond. , 2018, , .		0
31	Nanomechanical Sensing Using Spins in Diamond. Nano Letters, 2017, 17, 1496-1503.	4.5	95
32	Quantum imaging of current flow in graphene. Science Advances, 2017, 3, e1602429.	4.7	185
33	Electron paramagnetic resonance microscopy using spins in diamond under ambient conditions. Nature Communications, 2017, 8, 458.	5.8	65
34	Non-Neurotoxic Nanodiamond Probes for Intraneuronal Temperature Mapping. ACS Nano, 2017, 11, 12077-12086.	7.3	113
35	Environmentally Mediated Coherent Control of a Spin Qubit in Diamond. Physical Review Letters, 2017, 118, 167204.	2.9	8
36	Microwave-free nuclear magnetic resonance at molecular scales. Nature Communications, 2017, 8, 15950.	5.8	26

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37	Room-temperature single-photon emission from zinc oxide nanoparticle defects and their in vitro photostable intrinsic fluorescence. Nanophotonics, 2017, 6, 269-278.	2.9	18
38	Anticrossing Spin Dynamics of Diamond Nitrogen-Vacancy Centers and All-Optical Low-Frequency Magnetometry. Physical Review Applied, 2016, 6, .	1.5	28
39	Wide-band nanoscale magnetic resonance spectroscopy using quantum relaxation of a single spin in diamond. Physical Review B, 2016, 94, .	1.1	44
40	Magneto-optical imaging of thin magnetic films using spins in diamond. Scientific Reports, 2016, 6, 22797.	1.6	75
41	Diamond for neural interfacing: A review. Carbon, 2016, 102, 437-454.	5.4	61
42	Intrinsic fluorescence of selenium nanoparticles for cellular imaging applications. Nanoscale, 2016, 8, 3376-3385.	2.8	39
43	Scanning Nanospin Ensemble Microscope for Nanoscale Magnetic and Thermal Imaging. Nano Letters, 2016, 16, 326-333.	4.5	79
44	Detection of nanoscale electron spin resonance spectra demonstrated using nitrogen-vacancy centre probes in diamond. Nature Communications, 2016, 7, 10211.	5.8	89
45	Fluorescent Nanodiamond Silk Fibroin Spheres: Advanced Nanoscale Bioimaging Tool. ACS Biomaterials Science and Engineering, 2015, 1, 1104-1113.	2.6	37
46	In vivo imaging and tracking of individual nanodiamonds in drosophila melanogaster embryos. Biomedical Optics Express, 2014, 5, 1250.	1.5	43
47	Towards single-molecule NMR detection and spectroscopy using single spins in diamond. Physical Review B, 2014, 89, .	1.1	26
48	Electronic Properties and Metrology Applications of the Diamond<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msup><mml:mrow><mml:mi>NV</mml:mi></mml:mrow><mml:mrow><mml:mo>â^'</mml:mo></m under Pressure. Physical Review Letters, 2014, 112, 047601.	2.9	302
49	Ambient nanoscale sensing with single spins using quantum decoherence. New Journal of Physics, 2013, 15, 073042.	1.2	61
50	Room temperature single photon emission from zinc oxide nanoparticles formed by ion implantation in silica. , 2013, , .		1
51	Nanoscale sensing and imaging in biology using the nitrogen-vacancy center in diamond. MRS Bulletin, 2013, 38, 162-167.	1.7	22
52	Detection of atomic spin labels in a lipid bilayer using a single-spin nanodiamond probe. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 10894-10898.	3.3	113
53	Fluorescent nanoparticles for biosensing applications. , 2013, , .		0
54	Dynamic Stabilization of the Optical Resonances of Single Nitrogen-Vacancy Centers in Diamond. Physical Review Letters, 2012, 108, 206401.	2.9	113

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55	Recent progress in diamond photonics. , 2012, , .		0
56	High spatial and temporal resolution wide-field imaging of neuron activity using quantum NV-diamond. Scientific Reports, 2012, 2, 401.	1.6	141
57	Nearâ€Surface Spectrally Stable Nitrogen Vacancy Centres Engineered in Single Crystal Diamond. Advanced Materials, 2012, 24, 3333-3338.	11.1	25
58	Quantum measurement in living cells: Fluorescent diamond nanocrystals for biology. , 2011, , .		0
59	Rituximab maintenance for 2 years in patients with high tumour burden follicular lymphoma responding to rituximab plus chemotherapy (PRIMA): a phase 3, randomised controlled trial. Lancet, The, 2011, 377, 42-51.	6.3	957
60	Quantum measurement and orientation tracking of fluorescent nanodiamonds inside living cells. Nature Nanotechnology, 2011, 6, 358-363.	15.6	552
61	Diamond-based single-photon emitters. Reports on Progress in Physics, 2011, 74, 076501.	8.1	462
62	Engineering of nitrogen-vacancy color centers in high purity diamond by ion implantation and annealing. Journal of Applied Physics, 2011, 109, .	1.1	84
63	Towards all-diamond optical devices. , 2010, , .		0
64	21^st-Century Applications of Nanodiamonds. Optics and Photonics News, 2010, 21, 20.	0.4	32
65	Chromium single-photon emitters in diamond fabricated by ion implantation. Physical Review B, 2010, 81, .	1.1	97
66	Photophysics of chromium-related diamond single-photon emitters. Physical Review A, 2010, 81, .	1.0	71
67	A highly efficient two level diamond based single photon source. Applied Physics Letters, 2009, 94, 203107.	1.5	52
68	Nano-manipulation of diamond-based single photon sources. Optics Express, 2009, 17, 11287.	1.7	75
69	Two-Level Ultrabright Single Photon Emission from Diamond Nanocrystals. Nano Letters, 2009, 9, 3191-3195.	4.5	132
70	Enhanced single-photon emission in the near infrared from a diamond color center. Physical Review B, 2009, 79, .	1.1	71
71	Reactive ion etching of waveguide structures in diamond. Diamond and Related Materials, 2008, 17, 1831-1834.	1.8	37
72	Visible and near infra-red up-conversion in Tm^3+/Yb^3+ co-doped silica fibers under 980 nm excitation. Optics Express, 2008, 16, 13781.	1.7	64

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73	Estimation of energy transfer parameters in thulium- and ytterbium-doped silica fibers. , 2008, , .		9
74	Processing of Diamond: Towards All-Diamond Integrated Optics. , 2007, , .		0
75	Tm³⁺/Yb³⁺ co-doped alumino-silicate fibre: potential for S-band optical amplification. , 2007, , .		0
76	Diamond waveguides: toward an all-diamond platform. , 2007, 6801, 89.		1
77	Energy transfer up-conversion in Tm3+-doped silica fiber. Journal of Non-Crystalline Solids, 2006, 352, 136-141.	1.5	31
78	<title>Characterization of a thulium-doped silica-based optical fibre for S-band amplification</title>. , 2006, 6180, 181.		4