Victor Acosta

List of Publications by Year in descending order

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59 papers	4,411 citations	156536 32 h-index	214428 50 g-index
59 all docs	59 docs citations	59 times ranked	4186 citing authors

#	Article	IF	Citations
1	Nanoscale solid-state nuclear quadrupole resonance spectroscopy using depth-optimized nitrogen-vacancy ensembles in diamond. Applied Physics Letters, 2022, 120, .	1.5	11
2	Proposal for the search for new spin interactions at the micrometer scale using diamond quantum sensors. Physical Review Research, 2022, 4, .	1.3	6
3	Demonstration of diamond nuclear spin gyroscope. Science Advances, 2021, 7, eabl3840.	4.7	22
4	Robust optical readout and characterization of nuclear spin transitions in nitrogen-vacancy ensembles in diamond. Physical Review Research, 2020, 2, .	1.3	14
5	Diamond magnetometer enhanced by ferrite flux concentrators. Physical Review Research, 2020, 2, .	1.3	78
6	Two-dimensional nuclear magnetic resonance spectroscopy with a microfluidic diamond quantum sensor. Science Advances, 2019, 5, eaaw7895.	4.7	78
7	Achromatic Varifocal Metalens for the Visible Spectrum. ACS Photonics, 2019, 6, 2432-2440.	3.2	55
8	Stimulated Emission Depletion Microscopy with Diamond Silicon Vacancy Centers. ACS Photonics, 2019, 6, 2577-2582.	3.2	16
9	Diamond Magnetic Microscopy of Malarial Hemozoin Nanocrystals. Physical Review Applied, 2019, 11, .	1.5	48
10	Color Centers in Diamond as Novel Probes of Superconductivity. Journal of Superconductivity and Novel Magnetism, 2019, 32, 85-95.	0.8	18
11	Infrared laser threshold magnetometry with a NV doped diamond intracavity etalon. Optics Express, 2019, 27, 1706.	1.7	22
12	Solution nuclear magnetic resonance spectroscopy on a nanostructured diamond chip. Nature Communications, 2017, 8, 188.	5.8	60
13	High density nitrogen-vacancy sensing surface created via He+ ion implantation of 12C diamond. Applied Physics Letters, 2016, 108, .	1.5	63
14	Microwave-free magnetometry with nitrogen-vacancy centers in diamond. Applied Physics Letters, 2016, 109, .	1.5	88
15	Optically detected magnetic resonances of nitrogen-vacancy ensembles in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi mathvariant="normal">C</mml:mi><mml:mprescripts /><mml:none /><mml:mn>13</mml:mn></mml:mmultiscripts></mml:math>-enriched diamond. Physical Review B, 2016, 94, .	1.1	6
16	Quantum memories: emerging applications and recent advances. Journal of Modern Optics, 2016, 63, 2005-2028.	0.6	294
17	Temperature shifts of the resonances of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msup><mml:mi mathvariant="normal">NV</mml:mi><mml:mo>â^'</mml:mo></mml:msup></mml:math>center in diamond. Physical Review B, 2014, 90, .	1.1	127
18	Microwave saturation spectroscopy of nitrogen-vacancy ensembles in diamond. Physical Review B, 2014, 89, .	1.1	36

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19	Raman quantum memory based on an ensemble of nitrogen-vacancy centers coupled to a microcavity. Physical Review A, 2014, 89, .	1.0	24
20	Diamond magnetometry of superconducting thin films. Physical Review B, 2014, 89, .	1.1	33
21	Strength of weak measurements. Nature Physics, 2014, 10, 187-188.	6.5	2
22	Cavity-Enhanced Room-Temperature Magnetometry Using Absorption by Nitrogen-Vacancy Centers in Diamond. Physical Review Letters, 2014, 112, 160802.	2.9	112
23	Diamond nitrogen-vacancy centers created by scanning focused helium ion beam and annealing. Applied Physics Letters, 2013, 103, 081906.	1.5	45
24	NV-Diamond Magnetometer Using Electron Irradiation. Materials Research Society Symposia Proceedings, 2013, 1511, 1.	0.1	3
25	Nitrogen-vacancy centers: Physics and applications. MRS Bulletin, 2013, 38, 127-130.	1.7	98
26	High-Sensitivity Magnetometry Based on Quantum Beats in Diamond Nitrogen-Vacancy Centers. Physical Review Letters, 2013, 110, 130802.	2.9	119
27	Magnetometry with nitrogen-vacancy ensembles in diamond based on infrared absorption in a doubly resonant optical cavity. Physical Review B, 2013, 87, .	1.1	57
28	Electromagnetically Induced Transparency in a Diamond Spin Ensemble Enables All-Optical Electromagnetic Field Sensing. Physical Review Letters, 2013, 110, 213605.	2.9	98
29	Quantum photonic devices in single-crystal diamond. New Journal of Physics, 2013, 15, 025010.	1.2	67
30	Microring resonator-based diamond optothermal switch: a building block for a quantum computing network. , 2013, , .		2
31	Light narrowing of magnetic resonances in ensembles of nitrogen-vacancy centers in diamond. Physical Review B, 2013, 87, .	1.1	89
32	Optical magnetometry with nitrogen-vacancy centers in diamond. , 2013, , 142-166.		6
33	Diamond Nitrogen-Vacancy Center Creation with Helium-Ion Microscope. , 2013, , .		0
34	High-Resolution Photoluminescence Spectroscopy of Near-Surface Nitrogen-Vacancy Centers in Diamond. , 2012, , .		0
35	Dynamic Stabilization of the Optical Resonances of Single Nitrogen-Vacancy Centers in Diamond. Physical Review Letters, 2012, 108, 206401.	2.9	113
36	Towards integrated optical quantum networks in diamond. Proceedings of SPIE, 2012, , .	0.8	1

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37	Quantum Optics with Cavity-coupled Spin Qubits in Diamond. , 2012, , .		0
38	Temperature- and Magnetic-Field-Dependent Longitudinal Spin Relaxation in Nitrogen-Vacancy Ensembles in Diamond. Physical Review Letters, 2012, 108, 197601.	2.9	280
39	Room-temperature operation of a radiofrequency diamond magnetometer near the shot-noise limit. Journal of Applied Physics, 2012, 112, .	1.1	39
40	Electron spin resonance shift and linewidth broadening of nitrogen-vacancy centers in diamond as a function of electron irradiation dose. Applied Physics Letters, 2012, 101, 082410.	1.5	28
41	Recent progress in diamond photonics. , 2012, , .		0
42	Optical and Spin Coherence Properties of Nitrogen-Vacancy Centers Placed in a 100 nm Thick Isotopically Purified Diamond Layer. Nano Letters, 2012, 12, 2083-2087.	4.5	161
43	Coupling of Nitrogen-Vacancy Centers to Photonic Crystal Cavities in Monocrystalline Diamond. Physical Review Letters, 2012, 109, 033604.	2.9	344
44	Nearâ€Surface Spectrally Stable Nitrogen Vacancy Centres Engineered in Single Crystal Diamond. Advanced Materials, 2012, 24, 3333-3338.	11.1	25
45	Broadband magnetometry by infrared-absorption detection of diamond NV centers and associated temperature dependence. Proceedings of SPIE, 2011, , .	0.8	10
46	Search for plant biomagnetism with a sensitive atomic magnetometer. Journal of Applied Physics, 2011, 109, .	1.1	18
47	Detection of the Meissner effect with a diamond magnetometer. New Journal of Physics, 2011, 13, 025017.	1.2	40
48	Rubidium dimers in paraffin-coated cells. New Journal of Physics, 2010, 12, 083054.	1.2	4
49	Temperature Dependence of the Nitrogen-Vacancy Magnetic Resonance in Diamond. Physical Review Letters, 2010, 104, 070801.	2.9	478
50	Optical properties of the nitrogen-vacancy singlet levels in diamond. Physical Review B, 2010, 82, .	1.1	160
51	Broadband magnetometry by infrared-absorption detection of nitrogen-vacancy ensembles in diamond. Applied Physics Letters, 2010, 97, 174104.	1.5	128
52	Amplitude-modulated Magneto-Optical Rotation in Paraffin-coated Cells and Buffer Gas Cells. , 2010, , .		0
53	Cancellation of nonlinear Zeeman shifts with light shifts. Physical Review A, 2009, 79, .	1.0	48
54	Diamonds with a high density of nitrogen-vacancy centers for magnetometry applications. Physical Review B, 2009, 80, .	1.1	411

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55	Spin-exchange-relaxation-free magnetometry with Cs vapor. Physical Review A, 2008, 77, .	1.0	258
56	Production and detection of atomic hexadecapole at Earthâ€™s magnetic field. Optics Express, 2008, 16, 11423.	1.7	19
57	Nonlinear Magneto-Optical Rotation for Sensitive Measurement of Magnetic Fields. , 2008, , .		0
58	Detection of radio-frequency magnetic fields using nonlinear magneto-optical rotation. Physical Review A, 2007, 75, .	1.0	48
59	Novel Magnetic-Sensing Modalities with Nitrogen-Vacancy Centers in Diamond. , 0, , .		1