

Dmitry Budker

List of Publications by Year in descending order

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407
papers

19,356
citations

16437

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124
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all docs

421
docs citations

421
times ranked

9156
citing authors

#	ARTICLE	IF	CITATIONS
1	High-sensitivity diamond magnetometer with nanoscale resolution. <i>Nature Physics</i> , 2008, 4, 810-816.	6.5	1,409
2	Optical magnetometry. <i>Nature Physics</i> , 2007, 3, 227-234.	6.5	1,329
3	Search for new physics with atoms and molecules. <i>Reviews of Modern Physics</i> , 2018, 90, .	16.4	902
4	Resonant nonlinear magneto-optical effects in atoms. <i>Reviews of Modern Physics</i> , 2002, 74, 1153-1201.	16.4	643
5	Nonlinear Magneto-optics and Reduced Group Velocity of Light in Atomic Vapor with Slow Ground State Relaxation. <i>Physical Review Letters</i> , 1999, 83, 1767-1770.	2.9	560
6	Solid-state electronic spin coherence time approaching one second. <i>Nature Communications</i> , 2013, 4, 1743.	5.8	552
7	Temperature Dependence of the Nitrogen-Vacancy Magnetic Resonance in Diamond. <i>Physical Review Letters</i> , 2010, 104, 070801.	2.9	478
8	Diamonds with a high density of nitrogen-vacancy centers for magnetometry applications. <i>Physical Review B</i> , 2009, 80, .	1.1	411
9	Temperature- and Magnetic-Field-Dependent Longitudinal Spin Relaxation in Nitrogen-Vacancy Ensembles in Diamond. <i>Physical Review Letters</i> , 2012, 108, 197601.	2.9	280
10	Sensitive magnetometry based on nonlinear magneto-optical rotation. <i>Physical Review A</i> , 2000, 62, .	1.0	272
11	Proposal for a Cosmic Axion Spin Precession Experiment (CASPEr). <i>Physical Review X</i> , 2014, 4, .	2.8	265
12	Spin-exchange-relaxation-free magnetometry with Cs vapor. <i>Physical Review A</i> , 2008, 77, .	1.0	258
13	Nonlinear Magneto-optic Effects with Ultranarrow Widths. <i>Physical Review Letters</i> , 1998, 81, 5788-5791.	2.9	212
14	Polarized Alkali-Metal Vapor with Minute-Long Transverse Spin-Relaxation Time. <i>Physical Review Letters</i> , 2010, 105, 070801.	2.9	212
15	Search for Ultralight Scalar Dark Matter with Atomic Spectroscopy. <i>Physical Review Letters</i> , 2015, 115, 011802.	2.9	178
16	Optical properties of the nitrogen-vacancy singlet levels in diamond. <i>Physical Review B</i> , 2010, 82, .	1.1	160
17	Magnetic resonance imaging with an optical atomic magnetometer. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 12668-12671.	3.3	149
18	Observation of a Large Atomic Parity Violation Effect in Ytterbium. <i>Physical Review Letters</i> , 2009, 103, 071601.	2.9	142

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19	Light-induced desorption of alkali-metal atoms from paraffin coating. Physical Review A, 2002, 66, .	1.0	135
20	Parahydrogen-enhanced zero-field nuclear magnetic resonance. Nature Physics, 2011, 7, 571-575.	6.5	132
21	Broadband magnetometry by infrared-absorption detection of nitrogen-vacancy ensembles in diamond. Applied Physics Letters, 2010, 97, 174104.	1.5	128
22	Temperature shifts of the resonances of the $\text{NV}^{\text{center}}$ in diamond. Physical Review B, 2014, 90, .	1.1	127
23	Photoelectric detection of electron spin resonance of nitrogen-vacancy centres in diamond. Nature Communications, 2015, 6, 8577.	5.8	127
24	All-Optical Vector Atomic Magnetometer. Physical Review Letters, 2014, 113, 013001.	2.9	121
25	Detecting Domain Walls of Axionlike Models Using Terrestrial Experiments. Physical Review Letters, 2013, 110, 021803.	2.9	114
26	Relaxion stars and their detection via atomic physics. Communications Physics, 2020, 3, .	2.0	114
27	Microwave transitions and nonlinear magneto-optical rotation in anti-relaxation-coated cells. Physical Review A, 2005, 71, .	1.0	113
28	Nonlinear magneto-optical rotation with frequency-modulated light. Physical Review A, 2002, 65, .	1.0	112
29	Gyroscopes based on nitrogen-vacancy centers in diamond. Physical Review A, 2012, 86, .	1.0	112
30	Cavity-Enhanced Room-Temperature Magnetometry Using Absorption by Nitrogen-Vacancy Centers in Diamond. Physical Review Letters, 2014, 112, 160802.	2.9	112
31	Relaxation of atomic polarization in paraffin-coated cesium vapor cells. Physical Review A, 2005, 72, .	1.0	110
32	Zero-field remote detection of NMR with a microfabricated atomic magnetometer. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 2286-2290.	3.3	108
33	Roadmap on STIRAP applications. Journal of Physics B: Atomic, Molecular and Optical Physics, 2019, 52, 202001.	0.6	108
34	Can a Quantum Nondemolition Measurement Improve the Sensitivity of an Atomic Magnetometer?. Physical Review Letters, 2004, 93, 173002.	2.9	107
35	Bulk Nuclear Polarization Enhanced at Room Temperature by Optical Pumping. Physical Review Letters, 2013, 111, 057601.	2.9	106
36	Probing New Long-Range Interactions by Isotope Shift Spectroscopy. Physical Review Letters, 2018, 120, 091801.	2.9	106

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37	Laser frequency stabilization using linear magneto-optics. Review of Scientific Instruments, 2000, 71, 341-346.	0.6	98
38	Electromagnetically Induced Transparency in a Diamond Spin Ensemble Enables All-Optical Electromagnetic Field Sensing. Physical Review Letters, 2013, 110, 213605.	2.9	98
39	New Limits on Variation of the Fine-Structure Constant Using Atomic Dysprosium. Physical Review Letters, 2013, 111, 060801.	2.9	98
40	Nonlinear magneto-optical rotation with frequency-modulated light in the geophysical field range. Physical Review A, 2006, 73, .	1.0	93
41	Near-Zero-Field Nuclear Magnetic Resonance. Physical Review Letters, 2011, 107, 107601.	2.9	92
42	Nonlinear Magneto-optical Rotation via Alignment-to-Orientation Conversion. Physical Review Letters, 2000, 85, 2088-2091.	2.9	90
43	Optical detection of NMR J-spectra at zero magnetic field. Journal of Magnetic Resonance, 2009, 199, 25-29.	1.2	90
44	The Global Network of Optical Magnetometers for Exotic physics (GNOME): A novel scheme to search for physics beyond the Standard Model. Annalen Der Physik, 2013, 525, 659-670.	0.9	89
45	Light narrowing of magnetic resonances in ensembles of nitrogen-vacancy centers in diamond. Physical Review B, 2013, 87, .	1.1	89
46	Detection of nanoscale electron spin resonance spectra demonstrated using nitrogen-vacancy centre probes in diamond. Nature Communications, 2016, 7, 10211.	5.8	89
47	Microwave-free magnetometry with nitrogen-vacancy centers in diamond. Applied Physics Letters, 2016, 109, .	1.5	88
48	High magnetic fields for fundamental physics. Physics Reports, 2018, 765-766, 1-39.	10.3	87
49	Nonlinear magneto-optical rotation with amplitude modulated light. Applied Physics Letters, 2006, 88, 131108.	1.5	85
50	Limits on Violations of Lorentz Symmetry and the Einstein Equivalence Principle using Radio-Frequency Spectroscopy of Atomic Dysprosium. Physical Review Letters, 2013, 111, 050401.	2.9	85
51	Imaging the Local Charge Environment of Nitrogen-Vacancy Centers in Diamond. Physical Review Letters, 2018, 121, 246402.	2.9	84
52	Zero-Field NMR Enhanced by Parahydrogen in Reversible Exchange. Journal of the American Chemical Society, 2012, 134, 3987-3990.	6.6	83
53	Invited Review Article: Instrumentation for nuclear magnetic resonance in zero and ultralow magnetic field. Review of Scientific Instruments, 2017, 88, 091101.	0.6	83
54	Optical polarization of nuclear ensembles in diamond. Physical Review B, 2013, 87, .	1.1	82

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55	Optimization of cw sodium laser guide star efficiency. <i>Astronomy and Astrophysics</i> , 2010, 510, A20.	2.1	79
56	Search for Axionlike Dark Matter with a Liquid-State Nuclear Spin Comagnetometer. <i>Physical Review Letters</i> , 2019, 122, 191302.	2.9	79
57	Self-rotation of resonant elliptically polarized light in collision-free rubidium vapor. <i>Physical Review A</i> , 2001, 63, .	1.0	78
58	Vacuum squeezing in atomic media via self-rotation. <i>Physical Review A</i> , 2002, 66, .	1.0	78
59	Magnetometry with millimeter-scale antirelaxation-coated alkali-metal vapor cells. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2006, 23, 1001.	0.9	78
60	Limit on the Temporal Variation of the Fine-Structure Constant Using Atomic Dysprosium. <i>Physical Review Letters</i> , 2007, 98, 040801.	2.9	75
61	Optimizing a dynamical decoupling protocol for solid-state electronic spin ensembles in diamond. <i>Physical Review B</i> , 2015, 92, .	1.1	75
62	Constraints on bosonic dark matter from ultralow-field nuclear magnetic resonance. <i>Science Advances</i> , 2019, 5, eaax4539.	4.7	75
63	Hyperpolarized Xenon Nuclear Spins Detected by Optical Atomic Magnetometry. <i>Physical Review Letters</i> , 2004, 93, 160801.	2.9	70
64	Miniature Cavity-Enhanced Diamond Magnetometer. <i>Physical Review Applied</i> , 2017, 8, .	1.5	69
65	Dynamic effects in nonlinear magneto-optics of atoms and molecules: review. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2005, 22, 7.	0.9	63
66	Infrared absorption band and vibronic structure of the nitrogen-vacancy center in diamond. <i>Physical Review B</i> , 2013, 88, .	1.1	61
67	Solution nuclear magnetic resonance spectroscopy on a nanostructured diamond chip. <i>Nature Communications</i> , 2017, 8, 188.	5.8	60
68	Nonlinear laser spectroscopy and magneto-optics. <i>American Journal of Physics</i> , 1999, 67, 584-592.	0.3	59
69	Stochastic fluctuations of bosonic dark matter. <i>Nature Communications</i> , 2021, 12, 7321.	5.8	59
70	Parity-violating interactions of cosmic fields with atoms, molecules, and nuclei: Concepts and calculations for laboratory searches and extracting limits. <i>Physical Review D</i> , 2014, 90, .	1.6	58
71	Zero-Field Magnetometry Based on Nitrogen-Vacancy Ensembles in Diamond. <i>Physical Review Applied</i> , 2019, 11, .	1.5	58
72	Atomic polarization visualized. <i>American Journal of Physics</i> , 2001, 69, 450-454.	0.3	57

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73	Magnetometry with nitrogen-vacancy ensembles in diamond based on infrared absorption in a doubly resonant optical cavity. <i>Physical Review B</i> , 2013, 87, .	1.1	57
74	Revisiting spin-dependent forces mediated by new bosons: Potentials in the coordinate-space representation for macroscopic- and atomic-scale experiments. <i>Physical Review A</i> , 2019, 99, .	1.0	57
75	Search for parity nonconservation in atomic dysprosium. <i>Physical Review A</i> , 1997, 56, 3453-3463.	1.0	56
76	Longitudinal spin relaxation in nitrogen-vacancy ensembles in diamond. <i>EPJ Quantum Technology</i> , 2015, 2, .	2.9	56
77	Sensitive magnetometry in challenging environments. <i>AVS Quantum Science</i> , 2020, 2, .	1.8	56
78	Selective Addressing of High-Rank Atomic Polarization Moments. <i>Physical Review Letters</i> , 2003, 90, 253001.	2.9	55
79	Influence of magnetic-field inhomogeneity on nonlinear magneto-optical resonances. <i>Physical Review A</i> , 2006, 74, .	1.0	55
80	Limiting P -Odd Interactions of Cosmic Fields with Electrons, Protons, and Neutrons. <i>Physical Review Letters</i> , 2014, 113, 081601.	2.9	55
81	High-Resolution Zero-Field NMR <i>J</i> -Spectroscopy of Aromatic Compounds. <i>Journal of the American Chemical Society</i> , 2013, 135, 3607-3612.	6.6	54
82	Rapid hyperpolarization and purification of the metabolite fumarate in aqueous solution. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	54
83	Long-Lived Heteronuclear Spin-Singlet States in Liquids at a Zero Magnetic field. <i>Physical Review Letters</i> , 2014, 112, 077601.	2.9	52
84	Sensitive magnetic control of ensemble nuclear spin hyperpolarization in diamond. <i>Nature Communications</i> , 2013, 4, 1940.	5.8	51
85	Eddy current imaging with an atomic radio-frequency magnetometer. <i>Applied Physics Letters</i> , 2016, 108, .	1.5	51
86	Search for Axionlike Dark Matter Using Solid-State Nuclear Magnetic Resonance. <i>Physical Review Letters</i> , 2021, 126, 141802.	2.9	51
87	Controlling atomic vapor density in paraffin-coated cells using light-induced atomic desorption. <i>Physical Review A</i> , 2009, 79, .	1.0	50
88	Real-Time Nuclear Magnetic Resonance Detection of Fumarase Activity Using Parahydrogen-Hyperpolarized [¹³ C]Fumarate. <i>Journal of the American Chemical Society</i> , 2019, 141, 20209-20214.	6.6	50
89	Application of spin-exchange relaxation-free magnetometry to the Cosmic Axion Spin Precession Experiment. <i>Physics of the Dark Universe</i> , 2018, 19, 27-35.	1.8	50
90	Vibrational and electronic dynamics of nitrogen-vacancy centres in diamond revealed by two-dimensional ultrafast spectroscopy. <i>Nature Physics</i> , 2013, 9, 744-749.	6.5	49

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91	Constraints on exotic spin-dependent interactions between electrons from helium fine-structure spectroscopy. <i>Physical Review A</i> , 2017, 95, .	1.0	49
92	Detection of radio-frequency magnetic fields using nonlinear magneto-optical rotation. <i>Physical Review A</i> , 2007, 75, .	1.0	48
93	Cancellation of nonlinear Zeeman shifts with light shifts. <i>Physical Review A</i> , 2009, 79, .	1.0	48
94	The cosmic axion spin precession experiment (CASPER): a dark-matter search with nuclear magnetic resonance. <i>Quantum Science and Technology</i> , 2018, 3, 014008.	2.6	48
95	Characterization of the global network of optical magnetometers to search for exotic physics (GNOME). <i>Physics of the Dark Universe</i> , 2018, 22, 162-180.	1.8	48
96	Precessing Ferromagnetic Needle Magnetometer. <i>Physical Review Letters</i> , 2016, 116, 190801.	2.9	47
97	Direct limits on the interaction of antiprotons with axion-like dark matter. <i>Nature</i> , 2019, 575, 310-314.	13.7	47
98	Search for axion-like dark matter with spin-based amplifiers. <i>Nature Physics</i> , 2021, 17, 1402-1407.	6.5	47
99	Construction and applications of an atomic magnetic gradiometer based on nonlinear magneto-optical rotation. <i>Review of Scientific Instruments</i> , 2006, 77, 083106.	0.6	46
100	Polarization transfer via field sweeping in parahydrogen-enhanced nuclear magnetic resonance. <i>Journal of Chemical Physics</i> , 2019, 150, 174202.	1.2	46
101	Experimental investigation of excited-state lifetimes in atomic ytterbium. <i>Physical Review A</i> , 1996, 53, 3103-3109.	1.0	45
102	Towards a sensitive search for variation of the fine-structure constant using radio-frequency E1 transitions in atomic dysprosium. <i>Physical Review A</i> , 2004, 69, .	1.0	45
103	Submillimeter-resolution magnetic resonance imaging at the Earth's magnetic field with an atomic magnetometer. <i>Physical Review A</i> , 2008, 78, .	1.0	45
104	Investigation of antirelaxation coatings for alkali-metal vapor cells using surface science techniques. <i>Journal of Chemical Physics</i> , 2010, 133, 144703.	1.2	45
105	Directional infrared emission resulting from cascade population inversion and four-wave mixing in Rb vapor. <i>Optics Letters</i> , 2014, 39, 845.	1.7	45
106	Robust, high-speed, all-optical atomic magnetometer. <i>Review of Scientific Instruments</i> , 2006, 77, 113106.	0.6	44
107	Nonlinear magneto-optical rotation with modulated light in tilted magnetic fields. <i>Physical Review A</i> , 2006, 74, .	1.0	43
108	Isotopic variation of parity violation in atomic ytterbium. <i>Nature Physics</i> , 2019, 15, 120-123.	6.5	43

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109	Sensitive magnetometry reveals inhomogeneities in charge storage and weak transient internal currents in Li-ion cells. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 10667-10672.	3.3	43
110	Searching for axion stars and Q -balls with a terrestrial magnetometer network. Physical Review D, 2018, 97, .	1.6	42
111	Search for topological defect dark matter with a global network of optical magnetometers. Nature Physics, 2021, 17, 1396-1401.	6.5	42
112	Investigation of the gravitational-potential dependence of the fine-structure constant using atomic dysprosium. Physical Review A, 2007, 76, .	1.0	41
113	Detection of the Meissner effect with a diamond magnetometer. New Journal of Physics, 2011, 13, 025017.	1.2	40
114	Suppression of the Nonlinear Zeeman Effect and Heading Error in Earth-Field-Range Alkali-Vapor Magnetometers. Physical Review Letters, 2018, 120, 033202.	2.9	40
115	Search for Exchange-Antisymmetric Two-Photon States. Physical Review Letters, 1999, 83, 3978-3981.	2.9	39
116	Pump-probe nonlinear magneto-optical rotation with frequency-modulated light. Physical Review A, 2006, 73, .	1.0	39
117	Room-temperature operation of a radiofrequency diamond magnetometer near the shot-noise limit. Journal of Applied Physics, 2012, 112, .	1.1	39
118	Measurement of untruncated nuclear spin interactions via zero- to ultralow-field nuclear magnetic resonance. Physical Review B, 2015, 92, .	1.1	38
119	Scalar Dark Matter in the Radio-Frequency Band: Atomic-Spectroscopy Search Results. Physical Review Letters, 2019, 123, 141102.	2.9	38
120	Magnetometry with mesospheric sodium. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 3522-3525.	3.3	37
121	Chemical analysis using J-coupling multiplets in zero-field NMR. Chemical Physics Letters, 2013, 580, 160-165.	1.2	37
122	Search for the Effect of Massive Bodies on Atomic Spectra and Constraints on Yukawa-Type Interactions of Scalar Particles. Physical Review Letters, 2016, 117, 271601.	2.9	37
123	Emergent hydrodynamics in a strongly interacting dipolar spin ensemble. Nature, 2021, 597, 45-50.	13.7	37
124	Experimental investigation of excited states in atomic dysprosium. Physical Review A, 1994, 50, 132-143.	1.0	36
125	Microwave saturation spectroscopy of nitrogen-vacancy ensembles in diamond. Physical Review B, 2014, 89, .	1.1	36
126	Wide-Field Imaging of Superconductor Vortices with Electron Spins in Diamond. Physical Review Applied, 2018, 10, .	1.5	36

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127	Constraints on Exotic Spin-Dependent Interactions Between Matter and Antimatter from Antiprotonic Helium Spectroscopy. <i>Physical Review Letters</i> , 2018, 120, 183002.	2.9	36
128	Experimental benchmarking of quantum control in zero-field nuclear magnetic resonance. <i>Science Advances</i> , 2018, 4, eaar6327.	4.7	36
129	Zero-field nuclear magnetic resonance of chemically exchanging systems. <i>Nature Communications</i> , 2019, 10, 3002.	5.8	36
130	Microwave-Free Vector Magnetometry with Nitrogen-Vacancy Centers along a Single Axis in Diamond. <i>Physical Review Applied</i> , 2020, 13, .	1.5	36
131	Zero- to ultralow-field nuclear magnetic resonance J-spectroscopy with commercial atomic magnetometers. <i>Journal of Magnetic Resonance</i> , 2020, 314, 106723.	1.2	36
132	Floquet maser. <i>Science Advances</i> , 2021, 7, .	4.7	36
133	A remotely interrogated all-optical ^{87}Rb magnetometer. <i>Applied Physics Letters</i> , 2012, 101, 083502.	1.5	35
134	Sensitivity of condensed-matter P- and T-violation experiments. <i>Physical Review A</i> , 2006, 73, .	1.0	34
135	Diamond magnetometry of superconducting thin films. <i>Physical Review B</i> , 2014, 89, .	1.1	33
136	Atomic Physics Studies at the Gamma Factory at CERN. <i>Annalen Der Physik</i> , 2020, 532, 2000204.	0.9	33
137	Nonlinear magneto-optical rotation of frequency-modulated light resonant with a low-J-transition. <i>Physical Review A</i> , 2004, 69, .	1.0	32
138	Parity violation in atomic ytterbium: Experimental sensitivity and systematics. <i>Physical Review A</i> , 2010, 81, .	1.0	32
139	Modeling of pulsed-laser guide stars for the Thirty Meter Telescope project. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2012, 29, 2176.	0.9	32
140	Fundamental Aspects of Parahydrogen Enhanced Low-Field Nuclear Magnetic Resonance. <i>Physical Review Letters</i> , 2013, 110, 137602.	2.9	32
141	Longitudinal spin-relaxation in nitrogen-vacancy centers in electron irradiated diamond. <i>Applied Physics Letters</i> , 2015, 107, .	1.5	32
142	Characterization of high-temperature performance of cesium vapor cells with anti-relaxation coating. <i>Journal of Applied Physics</i> , 2017, 121, .	1.1	32
143	Remote sensing of geomagnetic fields and atomic collisions in the mesosphere. <i>Nature Communications</i> , 2018, 9, 3981.	5.8	32
144	Dynamics of a Ferromagnetic Particle Levitated over a Superconductor. <i>Physical Review Applied</i> , 2019, 11, .	1.5	32

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145	Experimental investigation of the $6s^2 1S_0 \rightarrow 5d 6s^2 3D_1, 2$ forbidden transitions in atomic ytterbium. <i>Physical Review A</i> , 1999, 59, 3513-3526.	1.0	31
146	Dynamic Stark effect and forbidden-transition spectral line shapes. <i>Physical Review A</i> , 2006, 73, .	1.0	31
147	Nonlinear magneto-optical rotation in the presence of a radio-frequency field. <i>Optics Express</i> , 2010, 18, 25494.	1.7	31
148	Liquid-State Nuclear Spin Comagnetometers. <i>Physical Review Letters</i> , 2012, 108, 243001.	2.9	31
149	Sidebands in optically detected magnetic resonance signals of nitrogen vacancy centers in diamond. <i>Physical Review B</i> , 2013, 87, .	1.1	31
150	Spin-lattice relaxation of individual solid-state spins. <i>Physical Review B</i> , 2018, 97, .	1.1	31
151	Overview of the Cosmic Axion Spin Precession Experiment (CASPER). <i>Springer Proceedings in Physics</i> , 2020, , 105-121.	0.1	31
152	Search for exotic spin-dependent interactions with a spin-based amplifier. <i>Science Advances</i> , 2021, 7, eabi9535.	4.7	31
153	Nuclear-Spin Comagnetometer Based on a Liquid of Identical Molecules. <i>Physical Review Letters</i> , 2018, 121, 023202.	2.9	30
154	Action potentials induce biomagnetic fields in carnivorous Venus flytrap plants. <i>Scientific Reports</i> , 2021, 11, 1438.	1.6	30
155	Zero- to Ultralow-Field NMR Spectroscopy of Small Biomolecules. <i>Analytical Chemistry</i> , 2021, 93, 3226-3232.	3.2	29
156	Light-induced polarization effects in atoms with partially resolved hyperfine structure and applications to absorption, fluorescence, and nonlinear magneto-optical rotation. <i>Physical Review A</i> , 2009, 80, .	1.0	28
157	Electron spin resonance shift and linewidth broadening of nitrogen-vacancy centers in diamond as a function of electron irradiation dose. <i>Applied Physics Letters</i> , 2012, 101, 082410.	1.5	28
158	Multi-channel data acquisition system with absolute time synchronization. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2014, 763, 150-154.	0.7	28
159	Singlet Contrast Magnetic Resonance Imaging: Unlocking Hyperpolarization with Metabolism**. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 6791-6798.	7.2	28
160	Nonlinear magneto-optical rotation and Zeeman and hyperfine relaxation of potassium atoms in a paraffin-coated cell. <i>Physical Review A</i> , 2006, 74, .	1.0	27
161	Hyperfine frequency shift and Zeeman relaxation in alkali-metal-vapor cells with antirelaxation alkene coating. <i>Physical Review A</i> , 2013, 87, .	1.0	26
162	Magnetic shielding and exotic spin-dependent interactions. <i>Physical Review D</i> , 2016, 94, .	1.6	26

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163	Chemical Reaction Monitoring using Zero-Field Nuclear Magnetic Resonance Enables Study of Heterogeneous Samples in Metal Containers. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 17026-17032.	7.2	26
164	Lower than low: Perspectives on zero- to ultralow-field nuclear magnetic resonance. <i>Journal of Magnetic Resonance</i> , 2021, 323, 106886.	1.2	26
165	A new spin on magnetometry. <i>Nature</i> , 2003, 422, 574-575.	13.7	25
166	Application of atomic magnetometry in magnetic particle detection. <i>Applied Physics Letters</i> , 2006, 89, 224105.	1.5	25
167	Remote detection of nuclear magnetic resonance with an anisotropic magnetoresistive sensor. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 2271-2273.	3.3	25
168	Note: Detection of a single cobalt microparticle with a microfabricated atomic magnetometer. <i>Review of Scientific Instruments</i> , 2011, 82, 086112.	0.6	25
169	Noise characterization of an atomic magnetometer at sub-millihertz frequencies. <i>Sensors and Actuators A: Physical</i> , 2015, 224, 147-155.	2.0	25
170	Nondestructive in-line sub-picomolar detection of magnetic nanoparticles in flowing complex fluids. <i>Scientific Reports</i> , 2018, 8, 3491.	1.6	25
171	Trapping and sympathetic cooling of single thorium ions for spectroscopy. <i>Physical Review A</i> , 2019, 99, .	1.0	25
172	Parity Nonconservation in Relativistic Hydrogenic Ions. <i>Physical Review Letters</i> , 1997, 78, 4717-4720.	2.9	24
173	Nonlinear electro- and magneto-optical effects related to Bennett structures. <i>Physical Review A</i> , 2002, 65, .	1.0	24
174	Eddy-Current Imaging with Nitrogen-Vacancy Centers in Diamond. <i>Physical Review Applied</i> , 2019, 11, .	1.5	24
175	Measurement of lifetimes and tensor polarizabilities of odd-parity states of atomic samarium. <i>Physical Review A</i> , 1999, 59, 3480-3494.	1.0	23
176	Measurement of hyperfine structure and isotope shifts in the Dy 421 nm transition. <i>Optics Letters</i> , 2009, 34, 2548.	1.7	23
177	Multiplets at zero magnetic field: The geometry of zero-field NMR. <i>Journal of Chemical Physics</i> , 2013, 138, 184202.	1.2	23
178	Alkali-vapor magnetic resonance driven by fictitious radiofrequency fields. <i>Applied Physics Letters</i> , 2014, 105, .	1.5	23
179	Ultra-Low-Field NMR Relaxation and Diffusion Measurements Using an Optical Magnetometer. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 9766-9770.	7.2	23
180	Nuclear magnetic resonance at millitesla fields using a zero-field spectrometer. <i>Journal of Magnetic Resonance</i> , 2016, 270, 35-39.	1.2	23

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181	Parametric wave mixing enhanced by velocity-insensitive two-photon excitation in Rb vapor. Journal of the Optical Society of America B: Optical Physics, 2017, 34, 1016.	0.9	23
182	Analysis method for detecting topological defect dark matter with a global magnetometer network. Physics of the Dark Universe, 2020, 28, 100494.	1.8	23
183	Production of long-lived atomic vapor inside high-density buffer gas. Physical Review A, 2008, 77, .	1.0	22
184	Transverse laser cooling of a thermal atomic beam of dysprosium. Physical Review A, 2010, 81, .	1.0	22
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