

Dmitry Budker

List of Publications by Year in descending order

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407
papers

19,356
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421
all docs

421
docs citations

421
times ranked

9156
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | High-sensitivity diamond magnetometer with nanoscale resolution. Nature Physics, 2008, 4, 810-816. | 16.7 | 1,409 |
| 2 | Optical magnetometry. Nature Physics, 2007, 3, 227-234. | 16.7 | 1,329 |
| 3 | Search for new physics with atoms and molecules. Reviews of Modern Physics, 2018, 90, . | 45.6 | 902 |
| 4 | Resonant nonlinear magneto-optical effects in atoms. Reviews of Modern Physics, 2002, 74, 1153-1201. | 45.6 | 643 |
| 5 | Nonlinear Magneto-optics and Reduced Group Velocity of Light in Atomic Vapor with Slow Ground State Relaxation. Physical Review Letters, 1999, 83, 1767-1770. | 7.8 | 560 |
| 6 | Solid-state electronic spin coherence time approaching one second. Nature Communications, 2013, 4, 1743. | 12.8 | 552 |
| 7 | Temperature Dependence of the Nitrogen-Vacancy Magnetic Resonance in Diamond. Physical Review Letters, 2010, 104, 070801. | 7.8 | 478 |
| 8 | Diamonds with a high density of nitrogen-vacancy centers for magnetometry applications. Physical Review B, 2009, 80, . | 3.2 | 411 |
| 9 | Temperature- and Magnetic-Field-Dependent Longitudinal Spin Relaxation in Nitrogen-Vacancy Ensembles in Diamond. Physical Review Letters, 2012, 108, 197601. | 7.8 | 280 |
| 10 | Sensitive magnetometry based on nonlinear magneto-optical rotation. Physical Review A, 2000, 62, . | 2.5 | 272 |
| 11 | Proposal for a Cosmic Axion Spin Precession Experiment (CASPEr). Physical Review X, 2014, 4, . | 8.9 | 265 |
| 12 | Spin-exchange-relaxation-free magnetometry with Cs vapor. Physical Review A, 2008, 77, . | 2.5 | 258 |
| 13 | Nonlinear Magneto-optic Effects with Ultranarrow Widths. Physical Review Letters, 1998, 81, 5788-5791. | 7.8 | 212 |
| 14 | Polarized Alkali-Metal Vapor with Minute-Long Transverse Spin-Relaxation Time. Physical Review Letters, 2010, 105, 070801. | 7.8 | 212 |
| 15 | Search for Ultralight Scalar Dark Matter with Atomic Spectroscopy. Physical Review Letters, 2015, 115, 011802. | 7.8 | 178 |
| 16 | Optical properties of the nitrogen-vacancy singlet levels in diamond. Physical Review B, 2010, 82, . | 3.2 | 160 |
| 17 | Magnetic resonance imaging with an optical atomic magnetometer. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 12668-12671. | 7.1 | 149 |
| 18 | Observation of a Large Atomic Parity Violation Effect in Ytterbium. Physical Review Letters, 2009, 103, 071601. | 7.8 | 142 |

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 19 | Light-induced desorption of alkali-metal atoms from paraffin coating. Physical Review A, 2002, 66, . | 2.5 | 135 |
| 20 | Parahydrogen-enhanced zero-field nuclear magnetic resonance. Nature Physics, 2011, 7, 571-575. | 16.7 | 132 |
| 21 | Broadband magnetometry by infrared-absorption detection of nitrogen-vacancy ensembles in diamond. Applied Physics Letters, 2010, 97, 174104. | 3.3 | 128 |
| 22 | Temperature shifts of the resonances of the NV^{0} center in diamond. Physical Review B, 2014, 90, . | 3.2 | 127 |
| 23 | Photoelectric detection of electron spin resonance of nitrogen-vacancy centres in diamond. Nature Communications, 2015, 6, 8577. | 12.8 | 127 |
| 24 | All-Optical Vector Atomic Magnetometer. Physical Review Letters, 2014, 113, 013001. | 7.8 | 121 |
| 25 | Detecting Domain Walls of Axionlike Models Using Terrestrial Experiments. Physical Review Letters, 2013, 110, 021803. | 7.8 | 114 |
| 26 | Relaxion stars and their detection via atomic physics. Communications Physics, 2020, 3, . | 5.3 | 114 |
| 27 | Microwave transitions and nonlinear magneto-optical rotation in anti-relaxation-coated cells. Physical Review A, 2005, 71, . | 2.5 | 113 |
| 28 | Nonlinear magneto-optical rotation with frequency-modulated light. Physical Review A, 2002, 65, . | 2.5 | 112 |
| 29 | Gyroscopes based on nitrogen-vacancy centers in diamond. Physical Review A, 2012, 86, . | 2.5 | 112 |
| 30 | Cavity-Enhanced Room-Temperature Magnetometry Using Absorption by Nitrogen-Vacancy Centers in Diamond. Physical Review Letters, 2014, 112, 160802. | 7.8 | 112 |
| 31 | Relaxation of atomic polarization in paraffin-coated cesium vapor cells. Physical Review A, 2005, 72, . | 2.5 | 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. | 7.1 | 108 |
| 33 | Roadmap on STIRAP applications. Journal of Physics B: Atomic, Molecular and Optical Physics, 2019, 52, 202001. | 1.5 | 108 |
| 34 | Can a Quantum Nondemolition Measurement Improve the Sensitivity of an Atomic Magnetometer?. Physical Review Letters, 2004, 93, 173002. | 7.8 | 107 |
| 35 | Bulk Nuclear Polarization Enhanced at Room Temperature by Optical Pumping. Physical Review Letters, 2013, 111, 057601. | 7.8 | 106 |
| 36 | Probing New Long-Range Interactions by Isotope Shift Spectroscopy. Physical Review Letters, 2018, 120, 091801. | 7.8 | 106 |

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|----|--|------|-----------|
| 37 | Laser frequency stabilization using linear magneto-optics. Review of Scientific Instruments, 2000, 71, 341-346. | 1.3 | 98 |
| 38 | Electromagnetically Induced Transparency in a Diamond Spin Ensemble Enables All-Optical Electromagnetic Field Sensing. Physical Review Letters, 2013, 110, 213605. | 7.8 | 98 |
| 39 | New Limits on Variation of the Fine-Structure Constant Using Atomic Dysprosium. Physical Review Letters, 2013, 111, 060801. | 7.8 | 98 |
| 40 | Nonlinear magneto-optical rotation with frequency-modulated light in the geophysical field range. Physical Review A, 2006, 73, . | 2.5 | 93 |
| 41 | Near-Zero-Field Nuclear Magnetic Resonance. Physical Review Letters, 2011, 107, 107601. | 7.8 | 92 |
| 42 | Nonlinear Magneto-optical Rotation via Alignment-to-Orientation Conversion. Physical Review Letters, 2000, 85, 2088-2091. | 7.8 | 90 |
| 43 | Optical detection of NMR J-spectra at zero magnetic field. Journal of Magnetic Resonance, 2009, 199, 25-29. | 2.1 | 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. | 2.4 | 89 |
| 45 | Light narrowing of magnetic resonances in ensembles of nitrogen-vacancy centers in diamond. Physical Review B, 2013, 87, . | 3.2 | 89 |
| 46 | Detection of nanoscale electron spin resonance spectra demonstrated using nitrogen-vacancy centre probes in diamond. Nature Communications, 2016, 7, 10211. | 12.8 | 89 |
| 47 | Microwave-free magnetometry with nitrogen-vacancy centers in diamond. Applied Physics Letters, 2016, 109, . | 3.3 | 88 |
| 48 | High magnetic fields for fundamental physics. Physics Reports, 2018, 765-766, 1-39. | 25.6 | 87 |
| 49 | Nonlinear magneto-optical rotation with amplitude modulated light. Applied Physics Letters, 2006, 88, 131108. | 3.3 | 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. | 7.8 | 85 |
| 51 | Imaging the Local Charge Environment of Nitrogen-Vacancy Centers in Diamond. Physical Review Letters, 2018, 121, 246402. | 7.8 | 84 |
| 52 | Zero-Field NMR Enhanced by Parahydrogen in Reversible Exchange. Journal of the American Chemical Society, 2012, 134, 3987-3990. | 13.7 | 83 |
| 53 | Invited Review Article: Instrumentation for nuclear magnetic resonance in zero and ultralow magnetic field. Review of Scientific Instruments, 2017, 88, 091101. | 1.3 | 83 |
| 54 | Optical polarization of nuclear ensembles in diamond. Physical Review B, 2013, 87, . | 3.2 | 82 |

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|----|---|------|-----------|
| 55 | Optimization of cw sodium laser guide star efficiency. <i>Astronomy and Astrophysics</i> , 2010, 510, A20. | 5.1 | 79 |
| 56 | Search for Axionlike Dark Matter with a Liquid-State Nuclear Spin Comagnetometer. <i>Physical Review Letters</i> , 2019, 122, 191302. | 7.8 | 79 |
| 57 | Self-rotation of resonant elliptically polarized light in collision-free rubidium vapor. <i>Physical Review A</i> , 2001, 63, . | 2.5 | 78 |
| 58 | Vacuum squeezing in atomic media via self-rotation. <i>Physical Review A</i> , 2002, 66, . | 2.5 | 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. | 2.1 | 78 |
| 60 | Limit on the Temporal Variation of the Fine-Structure Constant Using Atomic Dysprosium. <i>Physical Review Letters</i> , 2007, 98, 040801. | 7.8 | 75 |
| 61 | Optimizing a dynamical decoupling protocol for solid-state electronic spin ensembles in diamond. <i>Physical Review B</i> , 2015, 92, . | 3.2 | 75 |
| 62 | Constraints on bosonic dark matter from ultralow-field nuclear magnetic resonance. <i>Science Advances</i> , 2019, 5, eaax4539. | 10.3 | 75 |
| 63 | Hyperpolarized Xenon Nuclear Spins Detected by Optical Atomic Magnetometry. <i>Physical Review Letters</i> , 2004, 93, 160801. | 7.8 | 70 |
| 64 | Miniature Cavity-Enhanced Diamond Magnetometer. <i>Physical Review Applied</i> , 2017, 8, . | 3.8 | 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. | 2.1 | 63 |
| 66 | Infrared absorption band and vibronic structure of the nitrogen-vacancy center in diamond. <i>Physical Review B</i> , 2013, 88, . | 3.2 | 61 |
| 67 | Solution nuclear magnetic resonance spectroscopy on a nanostructured diamond chip. <i>Nature Communications</i> , 2017, 8, 188. | 12.8 | 60 |
| 68 | Nonlinear laser spectroscopy and magneto-optics. <i>American Journal of Physics</i> , 1999, 67, 584-592. | 0.7 | 59 |
| 69 | Stochastic fluctuations of bosonic dark matter. <i>Nature Communications</i> , 2021, 12, 7321. | 12.8 | 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, . | 4.7 | 58 |
| 71 | Zero-Field Magnetometry Based on Nitrogen-Vacancy Ensembles in Diamond. <i>Physical Review Applied</i> , 2019, 11, . | 3.8 | 58 |
| 72 | Atomic polarization visualized. <i>American Journal of Physics</i> , 2001, 69, 450-454. | 0.7 | 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, . | 3.2 | 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, . | 2.5 | 57 |
| 75 | Search for parity nonconservation in atomic dysprosium. <i>Physical Review A</i> , 1997, 56, 3453-3463. | 2.5 | 56 |
| 76 | Longitudinal spin relaxation in nitrogen-vacancy ensembles in diamond. <i>EPJ Quantum Technology</i> , 2015, 2, . | 6.3 | 56 |
| 77 | Sensitive magnetometry in challenging environments. <i>AVS Quantum Science</i> , 2020, 2, . | 4.9 | 56 |
| 78 | Selective Addressing of High-Rank Atomic Polarization Moments. <i>Physical Review Letters</i> , 2003, 90, 253001. | 7.8 | 55 |
| 79 | Influence of magnetic-field inhomogeneity on nonlinear magneto-optical resonances. <i>Physical Review A</i> , 2006, 74, . | 2.5 | 55 |
| 80 | Limiting $\langle P \rangle$ -Odd Interactions of Cosmic Fields with Electrons, Protons, and Neutrons. <i>Physical Review Letters</i> , 2014, 113, 081601. | 7.8 | 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. | 13.7 | 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, . | 7.1 | 54 |
| 83 | Long-Lived Heteronuclear Spin-Singlet States in Liquids at a Zero Magnetic field. <i>Physical Review Letters</i> , 2014, 112, 077601. | 7.8 | 52 |
| 84 | Sensitive magnetic control of ensemble nuclear spin hyperpolarization in diamond. <i>Nature Communications</i> , 2013, 4, 1940. | 12.8 | 51 |
| 85 | Eddy current imaging with an atomic radio-frequency magnetometer. <i>Applied Physics Letters</i> , 2016, 108, . | 3.3 | 51 |
| 86 | Search for Axionlike Dark Matter Using Solid-State Nuclear Magnetic Resonance. <i>Physical Review Letters</i> , 2021, 126, 141802. | 7.8 | 51 |
| 87 | Controlling atomic vapor density in paraffin-coated cells using light-induced atomic desorption. <i>Physical Review A</i> , 2009, 79, . | 2.5 | 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. | 13.7 | 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. | 4.9 | 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. | 16.7 | 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, . | 2.5 | 49 |
| 92 | Detection of radio-frequency magnetic fields using nonlinear magneto-optical rotation. <i>Physical Review A</i> , 2007, 75, . | 2.5 | 48 |
| 93 | Cancellation of nonlinear Zeeman shifts with light shifts. <i>Physical Review A</i> , 2009, 79, . | 2.5 | 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. | 5.8 | 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. | 4.9 | 48 |
| 96 | Precessing Ferromagnetic Needle Magnetometer. <i>Physical Review Letters</i> , 2016, 116, 190801. | 7.8 | 47 |
| 97 | Direct limits on the interaction of antiprotons with axion-like dark matter. <i>Nature</i> , 2019, 575, 310-314. | 27.8 | 47 |
| 98 | Search for axion-like dark matter with spin-based amplifiers. <i>Nature Physics</i> , 2021, 17, 1402-1407. | 16.7 | 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. | 1.3 | 46 |
| 100 | Polarization transfer via field sweeping in parahydrogen-enhanced nuclear magnetic resonance. <i>Journal of Chemical Physics</i> , 2019, 150, 174202. | 3.0 | 46 |
| 101 | Experimental investigation of excited-state lifetimes in atomic ytterbium. <i>Physical Review A</i> , 1996, 53, 3103-3109. | 2.5 | 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, . | 2.5 | 45 |
| 103 | Submillimeter-resolution magnetic resonance imaging at the Earth's magnetic field with an atomic magnetometer. <i>Physical Review A</i> , 2008, 78, . | 2.5 | 45 |
| 104 | Investigation of antirelaxation coatings for alkali-metal vapor cells using surface science techniques. <i>Journal of Chemical Physics</i> , 2010, 133, 144703. | 3.0 | 45 |
| 105 | Directional infrared emission resulting from cascade population inversion and four-wave mixing in Rb vapor. <i>Optics Letters</i> , 2014, 39, 845. | 3.3 | 45 |
| 106 | Robust, high-speed, all-optical atomic magnetometer. <i>Review of Scientific Instruments</i> , 2006, 77, 113106. | 1.3 | 44 |
| 107 | Nonlinear magneto-optical rotation with modulated light in tilted magnetic fields. <i>Physical Review A</i> , 2006, 74, . | 2.5 | 43 |
| 108 | Isotopic variation of parity violation in atomic ytterbium. <i>Nature Physics</i> , 2019, 15, 120-123. | 16.7 | 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. | 7.1 | 43 |
| 110 | Searching for axion stars and Q -balls with a terrestrial magnetometer network. Physical Review D, 2018, 97, . | 4.7 | 42 |
| 111 | Search for topological defect dark matter with a global network of optical magnetometers. Nature Physics, 2021, 17, 1396-1401. | 16.7 | 42 |
| 112 | Investigation of the gravitational-potential dependence of the fine-structure constant using atomic dysprosium. Physical Review A, 2007, 76, . | 2.5 | 41 |
| 113 | Detection of the Meissner effect with a diamond magnetometer. New Journal of Physics, 2011, 13, 025017. | 2.9 | 40 |
| 114 | Suppression of the Nonlinear Zeeman Effect and Heading Error in Earth-Field-Range Alkali-Vapor Magnetometers. Physical Review Letters, 2018, 120, 033202. | 7.8 | 40 |
| 115 | Search for Exchange-Antisymmetric Two-Photon States. Physical Review Letters, 1999, 83, 3978-3981. | 7.8 | 39 |
| 116 | Pump-probe nonlinear magneto-optical rotation with frequency-modulated light. Physical Review A, 2006, 73, . | 2.5 | 39 |
| 117 | Room-temperature operation of a radiofrequency diamond magnetometer near the shot-noise limit. Journal of Applied Physics, 2012, 112, . | 2.5 | 39 |
| 118 | Measurement of untruncated nuclear spin interactions via zero- to ultralow-field nuclear magnetic resonance. Physical Review B, 2015, 92, . | 3.2 | 38 |
| 119 | Scalar Dark Matter in the Radio-Frequency Band: Atomic-Spectroscopy Search Results. Physical Review Letters, 2019, 123, 141102. | 7.8 | 38 |
| 120 | Magnetometry with mesospheric sodium. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 3522-3525. | 7.1 | 37 |
| 121 | Chemical analysis using J-coupling multiplets in zero-field NMR. Chemical Physics Letters, 2013, 580, 160-165. | 2.6 | 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. | 7.8 | 37 |
| 123 | Emergent hydrodynamics in a strongly interacting dipolar spin ensemble. Nature, 2021, 597, 45-50. | 27.8 | 37 |
| 124 | Experimental investigation of excited states in atomic dysprosium. Physical Review A, 1994, 50, 132-143. | 2.5 | 36 |
| 125 | Microwave saturation spectroscopy of nitrogen-vacancy ensembles in diamond. Physical Review B, 2014, 89, . | 3.2 | 36 |
| 126 | Wide-Field Imaging of Superconductor Vortices with Electron Spins in Diamond. Physical Review Applied, 2018, 10, . | 3.8 | 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. | 7.8 | 36 |
| 128 | Experimental benchmarking of quantum control in zero-field nuclear magnetic resonance. <i>Science Advances</i> , 2018, 4, eaar6327. | 10.3 | 36 |
| 129 | Zero-field nuclear magnetic resonance of chemically exchanging systems. <i>Nature Communications</i> , 2019, 10, 3002. | 12.8 | 36 |
| 130 | Microwave-Free Vector Magnetometry with Nitrogen-Vacancy Centers along a Single Axis in Diamond. <i>Physical Review Applied</i> , 2020, 13, . | 3.8 | 36 |
| 131 | Zero- to ultralow-field nuclear magnetic resonance J-spectroscopy with commercial atomic magnetometers. <i>Journal of Magnetic Resonance</i> , 2020, 314, 106723. | 2.1 | 36 |
| 132 | Floquet maser. <i>Science Advances</i> , 2021, 7, . | 10.3 | 36 |
| 133 | A remotely interrogated all-optical ^{87}Rb magnetometer. <i>Applied Physics Letters</i> , 2012, 101, 083502. | 3.3 | 35 |
| 134 | Sensitivity of condensed-matter P- and T-violation experiments. <i>Physical Review A</i> , 2006, 73, . | 2.5 | 34 |
| 135 | Diamond magnetometry of superconducting thin films. <i>Physical Review B</i> , 2014, 89, . | 3.2 | 33 |
| 136 | Atomic Physics Studies at the Gamma Factory at CERN. <i>Annalen Der Physik</i> , 2020, 532, 2000204. | 2.4 | 33 |
| 137 | Nonlinear magneto-optical rotation of frequency-modulated light resonant with a low-J-transition. <i>Physical Review A</i> , 2004, 69, . | 2.5 | 32 |
| 138 | Parity violation in atomic ytterbium: Experimental sensitivity and systematics. <i>Physical Review A</i> , 2010, 81, . | 2.5 | 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. | 2.1 | 32 |
| 140 | Fundamental Aspects of Parahydrogen Enhanced Low-Field Nuclear Magnetic Resonance. <i>Physical Review Letters</i> , 2013, 110, 137602. | 7.8 | 32 |
| 141 | Longitudinal spin-relaxation in nitrogen-vacancy centers in electron irradiated diamond. <i>Applied Physics Letters</i> , 2015, 107, . | 3.3 | 32 |
| 142 | Characterization of high-temperature performance of cesium vapor cells with anti-relaxation coating. <i>Journal of Applied Physics</i> , 2017, 121, . | 2.5 | 32 |
| 143 | Remote sensing of geomagnetic fields and atomic collisions in the mesosphere. <i>Nature Communications</i> , 2018, 9, 3981. | 12.8 | 32 |
| 144 | Dynamics of a Ferromagnetic Particle Levitated over a Superconductor. <i>Physical Review Applied</i> , 2019, 11, . | 3.8 | 32 |

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|-----|--|------|-----------|
| 145 | Experimental investigation of the $6s^2 1S_0 \rightarrow 5d 6s^3 D_{1,2}$ forbidden transitions in atomic ytterbium. <i>Physical Review A</i> , 1999, 59, 3513-3526. | 2.5 | 31 |
| 146 | Dynamic Stark effect and forbidden-transition spectral line shapes. <i>Physical Review A</i> , 2006, 73, . | 2.5 | 31 |
| 147 | Nonlinear magneto-optical rotation in the presence of a radio-frequency field. <i>Optics Express</i> , 2010, 18, 25494. | 3.4 | 31 |
| 148 | Liquid-State Nuclear Spin Comagnetometers. <i>Physical Review Letters</i> , 2012, 108, 243001. | 7.8 | 31 |
| 149 | Sidebands in optically detected magnetic resonance signals of nitrogen vacancy centers in diamond. <i>Physical Review B</i> , 2013, 87, . | 3.2 | 31 |
| 150 | Spin-lattice relaxation of individual solid-state spins. <i>Physical Review B</i> , 2018, 97, . | 3.2 | 31 |
| 151 | Overview of the Cosmic Axion Spin Precession Experiment (CASPER). <i>Springer Proceedings in Physics</i> , 2020, , 105-121. | 0.2 | 31 |
| 152 | Search for exotic spin-dependent interactions with a spin-based amplifier. <i>Science Advances</i> , 2021, 7, eabi9535. | 10.3 | 31 |
| 153 | Nuclear-Spin Comagnetometer Based on a Liquid of Identical Molecules. <i>Physical Review Letters</i> , 2018, 121, 023202. | 7.8 | 30 |
| 154 | Action potentials induce biomagnetic fields in carnivorous Venus flytrap plants. <i>Scientific Reports</i> , 2021, 11, 1438. | 3.3 | 30 |
| 155 | Zero- to Ultralow-Field NMR Spectroscopy of Small Biomolecules. <i>Analytical Chemistry</i> , 2021, 93, 3226-3232. | 6.5 | 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, . | 2.5 | 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. | 3.3 | 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. | 1.6 | 28 |
| 159 | Singlet Contrast Magnetic Resonance Imaging: Unlocking Hyperpolarization with Metabolism**. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 6791-6798. | 13.8 | 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, . | 2.5 | 27 |
| 161 | Hyperfine frequency shift and Zeeman relaxation in alkali-metal-vapor cells with antirelaxation alkene coating. <i>Physical Review A</i> , 2013, 87, . | 2.5 | 26 |
| 162 | Magnetic shielding and exotic spin-dependent interactions. <i>Physical Review D</i> , 2016, 94, . | 4.7 | 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. | 13.8 | 26 |
| 164 | Lower than low: Perspectives on zero- to ultralow-field nuclear magnetic resonance. <i>Journal of Magnetic Resonance</i> , 2021, 323, 106886. | 2.1 | 26 |
| 165 | A new spin on magnetometry. <i>Nature</i> , 2003, 422, 574-575. | 27.8 | 25 |
| 166 | Application of atomic magnetometry in magnetic particle detection. <i>Applied Physics Letters</i> , 2006, 89, 224105. | 3.3 | 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. | 7.1 | 25 |
| 168 | Note: Detection of a single cobalt microparticle with a microfabricated atomic magnetometer. <i>Review of Scientific Instruments</i> , 2011, 82, 086112. | 1.3 | 25 |
| 169 | Noise characterization of an atomic magnetometer at sub-millihertz frequencies. <i>Sensors and Actuators A: Physical</i> , 2015, 224, 147-155. | 4.1 | 25 |
| 170 | Nondestructive in-line sub-picomolar detection of magnetic nanoparticles in flowing complex fluids. <i>Scientific Reports</i> , 2018, 8, 3491. | 3.3 | 25 |
| 171 | Trapping and sympathetic cooling of single thorium ions for spectroscopy. <i>Physical Review A</i> , 2019, 99, . | 2.5 | 25 |
| 172 | Parity Nonconservation in Relativistic Hydrogenic Ions. <i>Physical Review Letters</i> , 1997, 78, 4717-4720. | 7.8 | 24 |
| 173 | Nonlinear electro- and magneto-optical effects related to Bennett structures. <i>Physical Review A</i> , 2002, 65, . | 2.5 | 24 |
| 174 | Eddy-Current Imaging with Nitrogen-Vacancy Centers in Diamond. <i>Physical Review Applied</i> , 2019, 11, . | 3.8 | 24 |
| 175 | Measurement of lifetimes and tensor polarizabilities of odd-parity states of atomic samarium. <i>Physical Review A</i> , 1999, 59, 3480-3494. | 2.5 | 23 |
| 176 | Measurement of hyperfine structure and isotope shifts in the Dy 421 nm transition. <i>Optics Letters</i> , 2009, 34, 2548. | 3.3 | 23 |
| 177 | Multiplets at zero magnetic field: The geometry of zero-field NMR. <i>Journal of Chemical Physics</i> , 2013, 138, 184202. | 3.0 | 23 |
| 178 | Alkali-vapor magnetic resonance driven by fictitious radiofrequency fields. <i>Applied Physics Letters</i> , 2014, 105, . | 3.3 | 23 |
| 179 | Ultra-Low-Field NMR Relaxation and Diffusion Measurements Using an Optical Magnetometer. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 9766-9770. | 13.8 | 23 |
| 180 | Nuclear magnetic resonance at millitesla fields using a zero-field spectrometer. <i>Journal of Magnetic Resonance</i> , 2016, 270, 35-39. | 2.1 | 23 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|------|-----------|
| 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. | 2.1 | 23 |
| 182 | Analysis method for detecting topological defect dark matter with a global magnetometer network. Physics of the Dark Universe, 2020, 28, 100494. | 4.9 | 23 |
| 183 | Production of long-lived atomic vapor inside high-density buffer gas. Physical Review A, 2008, 77, . | 2.5 | 22 |
| 184 | Transverse laser cooling of a thermal atomic beam of dysprosium. Physical Review A, 2010, 81, . | 2.5 | 22 |
| 185 | Zero-field nuclear magnetic resonance. Physics Today, 2013, 66, 44-49. | 0.3 | 22 |
| 186 | Coherent population oscillations with nitrogen-vacancy color centers in diamond. Physical Review B, 2016, 94, . | 3.2 | 22 |
| 187 | Magnetic Gradiometer for the Detection of Zero- to Ultralow-Field Nuclear Magnetic Resonance. Physical Review Applied, 2019, 11, . | 3.8 | 22 |
| 188 | Optically Enhanced Electric Field Sensing Using Nitrogen-Vacancy Ensembles. Physical Review Applied, 2021, 16, . | 3.8 | 22 |
| 189 | Infrared laser threshold magnetometry with a NV doped diamond intracavity etalon. Optics Express, 2019, 27, 1706. | 3.4 | 22 |
| 190 | Demonstration of diamond nuclear spin gyroscope. Science Advances, 2021, 7, eabl3840. | 10.3 | 22 |
| 191 | Constraints on anomalous spin-spin interactions from spin-exchange collisions. Physical Review A, 2010, 82, . | 2.5 | 21 |
| 192 | Spectroscopic Test of Bose-Einstein Statistics for Photons. Physical Review Letters, 2010, 104, 253604. | 7.8 | 21 |
| 193 | Expanding Nuclear Physics Horizons with the Gamma Factory. Annalen Der Physik, 2022, 534, . | 2.4 | 21 |
| 194 | Search for Dark-Matter-Induced Oscillations of Fundamental Constants Using Molecular Spectroscopy. Physical Review Letters, 2022, 129, . | 7.8 | 21 |
| 195 | Orientation-to-alignment conversion and spin squeezing. Physical Review A, 2012, 85, . | 2.5 | 20 |
| 196 | ¹³ C-Decoupled <i>J</i> -Coupling Spectroscopy Using Two-Dimensional Nuclear Magnetic Resonance at Zero-Field. Journal of Physical Chemistry Letters, 2017, 8, 1512-1516. | 4.6 | 20 |
| 197 | Axion quark nuggets and how a global network can discover them. Physical Review D, 2020, 101, . | 4.7 | 20 |
| 198 | Searching for Earth/Solar axion halos. Journal of High Energy Physics, 2020, 2020, 1. | 4.7 | 20 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 199 | Millicharged Dark Matter Detection with Ion Traps. PRX Quantum, 2022, 3, . | 9.2 | 20 |
| 200 | Improved Bounds on Ultralight Scalar Dark Matter in the Radio-Frequency Range. Physical Review Letters, 2022, 129, . | 7.8 | 20 |
| 201 | Measurement of the forbidden $6s^2 1S_0 \rightarrow 5d 6s^3 D_1$ magnetic-dipole transition amplitude in atomic ytterbium. Physical Review A, 2002, 66, . | 2.5 | 19 |
| 202 | Production and detection of atomic hexadecapole at Earth's magnetic field. Optics Express, 2008, 16, 11423. | 3.4 | 19 |
| 203 | Parahydrogen-induced polarization at zero magnetic field. Journal of Chemical Physics, 2013, 138, 234201. | 3.0 | 19 |
| 204 | A method for measurement of spin-spin couplings with sub-mHz precision using zero- to ultralow-field nuclear magnetic resonance. Journal of Magnetic Resonance, 2017, 284, 66-72. | 2.1 | 19 |
| 205 | Magnetometry with Nitrogen-Vacancy Centers in Diamond. Smart Sensors, Measurement and Instrumentation, 2017, , 553-576. | 0.6 | 19 |
| 206 | Flow in porous metallic materials: A magnetic resonance imaging study. Journal of Magnetic Resonance Imaging, 2008, 28, 1299-1302. | 3.4 | 18 |
| 207 | Search for plant biomagnetism with a sensitive atomic magnetometer. Journal of Applied Physics, 2011, 109, . | 2.5 | 18 |
| 208 | Color Centers in Diamond as Novel Probes of Superconductivity. Journal of Superconductivity and Novel Magnetism, 2019, 32, 85-95. | 1.8 | 18 |
| 209 | Gravity Probe Spin: Prospects for measuring general-relativistic precession of intrinsic spin using a ferromagnetic gyroscope. Physical Review D, 2021, 103, . | 4.7 | 18 |
| 210 | Imaging Topological Spin Structures Using Light-Polarization and Magnetic Microscopy. Physical Review Applied, 2021, 15, . | 3.8 | 18 |
| 211 | Fiberized Diamond-Based Vector Magnetometers. Frontiers in Photonics, 2021, 2, . | 2.4 | 18 |
| 212 | Constant-adiabaticity ultralow magnetic field manipulations of parahydrogen-induced polarization: application to an AA'X spin system. Physical Chemistry Chemical Physics, 2021, 23, 7125-7134. | 2.8 | 18 |
| 213 | Efficient population transfer in a multilevel system using diverging laser beams. Physical Review A, 2000, 63, . | 2.5 | 17 |
| 214 | Vector light shift averaging in paraffin-coated alkali vapor cells. Optics Express, 2016, 24, 15383. | 3.4 | 17 |
| 215 | Transition-Selective Pulses in Zero-Field Nuclear Magnetic Resonance. Journal of Physical Chemistry A, 2016, 120, 4343-4348. | 2.5 | 17 |
| 216 | Polychromatic, continuous-wave mirrorless lasing from monochromatic pumping of cesium vapor. Optics Letters, 2019, 44, 3657. | 3.3 | 17 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 217 | Nuclear-spin relaxation of Pb207 in ferroelectric powders. Physical Review A, 2008, 77, . | 2.5 | 16 |
| 218 | Measuring molecular parity nonconservation using nuclear-magnetic-resonance spectroscopy. Physical Review A, 2017, 96, . | 2.5 | 16 |
| 219 | 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 |
| 220 | Battery Characterization via Eddy-Current Imaging with Nitrogen-Vacancy Centers in Diamond. Applied Sciences (Switzerland), 2021, 11, 3069. | 2.5 | 16 |
| 221 | Continuous-wave mirrorless lasing at 221 nm in sodium vapors. Optics Letters, 2018, 43, 5279. | 3.3 | 16 |
| 222 | Magnetolectric Jones Dichroism in Atoms. Physical Review Letters, 2003, 91, 263901. | 7.8 | 15 |
| 223 | Controllable steep dispersion with gain in a four-level N-scheme with four-wave mixing. Journal of Modern Optics, 2013, 60, 64-72. | 1.3 | 15 |
| 224 | Spectral signatures of axionlike dark matter. Physical Review D, 2022, 105, . | 4.7 | 15 |
| 225 | Investigation of nearly degenerate opposite parity states in atomic dysprosium. Physical Review Letters, 1993, 70, 3019-3022. | 7.8 | 14 |
| 226 | Measurement of the Stark-induced amplitudes of the $6P_{1/2} \rightarrow 7P_{1/2}$ transition in atomic thallium. Physical Review A, 1994, 50, 4657-4670. | 2.5 | 14 |
| 227 | Collisional perturbation of states in atomic ytterbium by helium and neon. Physical Review A, 1999, 60, 1103-1112. | 2.5 | 14 |
| 228 | Magneto-optical cooling of atoms. Optics Letters, 2014, 39, 4502. | 3.3 | 14 |
| 229 | On the Possibility of Miniature Diamond-Based Magnetometers Using Waveguide Geometries. Micromachines, 2018, 9, 276. | 2.9 | 14 |
| 230 | Hyperfine level structure in nitrogen-vacancy centers near the ground-state level anticrossing. Physical Review B, 2019, 100, . | 3.2 | 14 |
| 231 | Robust optical readout and characterization of nuclear spin transitions in nitrogen-vacancy ensembles in diamond. Physical Review Research, 2020, 2, . | 3.6 | 14 |
| 232 | Precision Determination of Isotope Shifts in Ytterbium and Implications for New Physics. Physical Review Letters, 2022, 128, 073001. | 7.8 | 14 |
| 233 | Light-induced changes in an alkali metal atomic vapor cell coating studied by X-ray photoelectron spectroscopy. Journal of Applied Physics, 2013, 114, . | 2.5 | 13 |
| 234 | Dichroic atomic vapor laser lock with multi-gigahertz stabilization range. Review of Scientific Instruments, 2016, 87, 063107. | 1.3 | 13 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 235 | Investigation of two-frequency Paul traps for antihydrogen production. <i>Hyperfine Interactions</i> , 2017, 238, 1. | 0.5 | 13 |
| 236 | Dependence of atomic parity-violation effects on neutron skins and new physics. <i>Physical Review C</i> , 2019, 100, . | 2.9 | 13 |
| 237 | Floquet Spin Amplification. <i>Physical Review Letters</i> , 2022, 128, . | 7.8 | 13 |
| 238 | Small-sized dichroic atomic vapor laser lock. <i>Review of Scientific Instruments</i> , 2011, 82, 043107. | 1.3 | 12 |
| 239 | Four-wave mixing in a ring cavity. <i>Optical Engineering</i> , 2014, 53, 102709. | 1.0 | 12 |
| 240 | Linewidth of collimated wavelength-converted emission in Rb vapour. <i>Applied Physics B: Lasers and Optics</i> , 2014, 117, 203-209. | 2.2 | 12 |
| 241 | Ferromagnetic gyroscopes for tests of fundamental physics. <i>Quantum Science and Technology</i> , 2021, 6, 024006. | 5.8 | 12 |
| 242 | Probing fast oscillating scalar dark matter with atoms and molecules. <i>Quantum Science and Technology</i> , 2021, 6, 034001. | 5.8 | 12 |
| 243 | Photochemically Induced Dynamic Nuclear Polarization of Heteronuclear Singlet Order. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 4686-4691. | 4.6 | 12 |
| 244 | Relaxivity of gadolinium complexes detected by atomic magnetometry. <i>Magnetic Resonance in Medicine</i> , 2011, 66, 603-606. | 3.0 | 11 |
| 245 | Simulations of pulsed sodium laser guide stars: an overview. , 2012, , . | | 11 |
| 246 | A data archive for storing precision measurements. <i>Physics Today</i> , 2015, 68, 10-11. | 0.3 | 11 |
| 247 | Efficient polarization of high-angular-momentum systems. <i>Physical Review A</i> , 2016, 94, . | 2.5 | 11 |
| 248 | Optical quenching and recovery of photoconductivity in single-crystal diamond. <i>Applied Physics Letters</i> , 2017, 110, . | 3.3 | 11 |
| 249 | Towards improved measurements of parity violation in atomic ytterbium. <i>Hyperfine Interactions</i> , 2017, 238, 1. | 0.5 | 11 |
| 250 | Magnetic sensing at zero field with a single nitrogen-vacancy center. <i>Quantum Science and Technology</i> , 2021, 6, 034006. | 5.8 | 11 |
| 251 | Molecular parity nonconservation in nuclear spin couplings. <i>Physical Review Research</i> , 2020, 2, . | 3.6 | 11 |
| 252 | Gamma Factory at CERN -- Novel Research Tools Made of Light. <i>Acta Physica Polonica B</i> , 2019, 50, 1191. | 0.8 | 11 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 253 | Response of atomic spin-based sensors to magnetic and nonmagnetic perturbations. <i>Scientific Reports</i> , 2022, 12, 324. | 3.3 | 11 |
| 254 | Obtaining frequency markers of variable separation with a spherical mirror Fabry-Perot interferometer. <i>Review of Scientific Instruments</i> , 2000, 71, 2984-2987. | 1.3 | 10 |
| 255 | Broadband magnetometry by infrared-absorption detection of diamond NV centers and associated temperature dependence. <i>Proceedings of SPIE</i> , 2011, , . | 0.8 | 10 |
| 256 | Optical control of resonant light transmission for an atom-cavity system. <i>Physical Review A</i> , 2015, 91, . | 2.5 | 10 |
| 257 | Level anti-crossing magnetometry with color centers in diamond. <i>Proceedings of SPIE</i> , 2017, , . | 0.8 | 10 |
| 258 | Spin ensemble-based AC magnetometry using concatenated dynamical decoupling at low temperatures. <i>Journal of Optics (United Kingdom)</i> , 2018, 20, 024008. | 2.2 | 10 |
| 259 | Resonant detection and production of axions with atoms. <i>International Journal of Modern Physics A</i> , 2018, 33, 1844030. | 1.5 | 10 |
| 260 | Sawtooth-wave adiabatic-passage slowing of dysprosium. <i>Physical Review A</i> , 2019, 99, . | 2.5 | 10 |
| 261 | Comment on Sensitivity Coefficients to Variation of Fundamental Constants. <i>Annalen Der Physik</i> , 2019, 531, 1800254. | 2.4 | 10 |
| 262 | Continuous-wave cavity ring-down polarimetry. <i>Journal of Chemical Physics</i> , 2020, 152, 164202. | 3.0 | 10 |
| 263 | Dark matter searches using accelerometer-based networks. <i>Quantum Science and Technology</i> , 2021, 6, 034004. | 5.8 | 10 |
| 264 | Quantum sensitivity limits of nuclear magnetic resonance experiments searching for new fundamental physics. <i>Quantum Science and Technology</i> , 2021, 6, 034007. | 5.8 | 10 |
| 265 | Surpassing the Energy Resolution Limit with Ferromagnetic Torque Sensors. <i>Physical Review Letters</i> , 2021, 127, 070801. | 7.8 | 10 |
| 266 | Determination of local defect density in diamond by double electron-electron resonance. <i>Physical Review B</i> , 2021, 104, . | 3.2 | 10 |
| 267 | Polarization-driven spin precession of mesospheric sodium atoms. <i>Optics Letters</i> , 2018, 43, 5825. | 3.3 | 10 |
| 268 | Stand-Off Magnetometry with Directional Emission from Sodium Vapors. <i>Physical Review Letters</i> , 2021, 127, 173605. | 7.8 | 10 |
| 269 | Infrasonic, Acoustic and Seismic Waves Produced by the Axion Quark Nuggets. <i>Symmetry</i> , 2022, 14, 459. | 2.2 | 10 |
| 270 | Production of dry powder clots using a piezoelectric drop generator. <i>Review of Scientific Instruments</i> , 2002, 73, 2331-2335. | 1.3 | 9 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|------|-----------|
| 271 | Nonlinear magneto-optical rotation in optically thick media. <i>Journal of Modern Optics</i> , 2002, 49, 2543-2553. | 1.3 | 9 |
| 272 | Laser guide star return flux simulations based on observed sodium density profiles. , 2010, , . | | 9 |
| 273 | Hybrid optical pumping of K and Rb atoms in a paraffin coated vapor cell. <i>Optics Letters</i> , 2017, 42, 4163. | 3.3 | 9 |
| 274 | A Hypothetical Effect of the Maxwellâ€™s-Proca Electromagnetic Stresses on Galaxy Rotation Curves. <i>Astrophysical Journal</i> , 2019, 871, 218. | 4.5 | 9 |
| 275 | Two-dimensional single- and multiple-quantum correlation spectroscopy in zero-field nuclear magnetic resonance. <i>Journal of Magnetic Resonance</i> , 2020, 318, 106781. | 2.1 | 9 |
| 276 | Rapid Online Solid-State Battery Diagnostics with Optically Pumped Magnetometers. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 7864. | 2.5 | 9 |
| 277 | Laser spectroscopy and lifetime measurements of Dy i states. <i>Optics Letters</i> , 1991, 16, 1514. | 3.3 | 8 |
| 278 | Multichannel conical emission and parametric and nonparametric nonlinear optical processes in ytterbium vapor. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2001, 18, 639. | 2.1 | 8 |
| 279 | Unusually large polarizabilities and previously unidentified atomic states in Ba. <i>Physical Review A</i> , 2004, 69, . | 2.5 | 8 |
| 280 | Rubidium 'whiskers' in a vapour cell. <i>Nature Physics</i> , 2007, 3, 2-2. | 16.7 | 8 |
| 281 | Electric-field-induced change of the alkali-metal vapor density in paraffin-coated cells. <i>Physical Review A</i> , 2009, 79, . | 2.5 | 8 |
| 282 | Symmetry-suppressed two-photon transitions induced by hyperfine interactions and magnetic fields. <i>Physical Review A</i> , 2009, 80, . | 2.5 | 8 |
| 283 | Nonlinear magneto-optical rotation in rubidium vapor excited with blue light. <i>Physical Review A</i> , 2015, 92, . | 2.5 | 8 |
| 284 | Is light narrowing possible with dense-vapor paraffin coated cells for atomic magnetometers?. <i>AIP Advances</i> , 2017, 7, . | 1.3 | 8 |
| 285 | Detection of the Lowest-Lying Odd-Parity Atomic Levels in Actinium. <i>Physical Review Letters</i> , 2020, 125, 073001. | 7.8 | 8 |
| 286 | Fast Apparent Oscillations of Fundamental Constants. <i>Annalen Der Physik</i> , 2020, 532, 1900566. | 2.4 | 8 |
| 287 | Towards large-scale steady-state enhanced nuclear magnetization with in situ detection. <i>Magnetic Resonance in Chemistry</i> , 2021, 59, 1208-1215. | 1.9 | 8 |
| 288 | Frequency chirped continuous-wave sodium laser guide stars: modeling and optimization. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2020, 37, 1208. | 2.1 | 8 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|------|-----------|
| 289 | Spiking dynamics of frequency upconverted field generated in continuous-wave excited rubidium vapors. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2020, 37, 2430. | 2.1 | 8 |
| 290 | Absolute optical chiral analysis using cavity-enhanced polarimetry. <i>Science Advances</i> , 2022, 8, . | 10.3 | 8 |
| 291 | Collisional perturbation of radio-frequency E1 transitions in an atomic beam of dysprosium. <i>Physical Review A</i> , 2005, 72, . | 2.5 | 7 |
| 292 | A laboratory search for variation of the fine-structure constant using atomic dysprosium. <i>European Physical Journal: Special Topics</i> , 2008, 163, 71-88. | 2.6 | 7 |
| 293 | The sense of colour centres. <i>Nature Physics</i> , 2011, 7, 453-454. | 16.7 | 7 |
| 294 | Raman and nuclear magnetic resonance investigation of alkali metal vapor interaction with alkene-based anti-relaxation coating. <i>Journal of Chemical Physics</i> , 2016, 144, 094707. | 3.0 | 7 |
| 295 | Constraining Exotic Interactions. <i>Annalen Der Physik</i> , 2019, 531, 1800273. | 2.4 | 7 |
| 296 | A network of magnetometers for multi-scale urban science and informatics. <i>Geoscientific Instrumentation, Methods and Data Systems</i> , 2019, 8, 129-138. | 1.6 | 7 |
| 297 | Catching, trapping and in-situ-identification of thorium ions inside Coulomb crystals of 40Ca^+ ions. <i>Hyperfine Interactions</i> , 2019, 240, 1. | 0.5 | 7 |
| 298 | Intensity-correlated spiking of infrared and ultraviolet emission from sodium vapors. <i>Optics Letters</i> , 2021, 46, 2131. | 3.3 | 7 |
| 299 | Pseudovector and pseudoscalar spin-dependent interactions in atoms. <i>Physical Review A</i> , 2022, 105, . | 2.5 | 7 |
| 300 | Progress towards fundamental symmetry tests with nonlinear optical rotation. <i>AIP Conference Proceedings</i> , 2001, , . | 0.4 | 6 |
| 301 | Polarization-dependent photoionization cross sections and radiative lifetimes of atomic states in Ba. <i>Physical Review A</i> , 2006, 74, . | 2.5 | 6 |
| 302 | Measurement of dynamic Stark polarizabilities by analyzing spectral line shapes of forbidden transitions. <i>Physical Review A</i> , 2010, 82, . | 2.5 | 6 |
| 303 | Optical magnetometry with nitrogen-vacancy centers in diamond. , 2013, , 142-166. | | 6 |
| 304 | On-Sky Tests of a High-Power Pulsed Laser for Sodium Laser Guide Star Adaptive Optics. <i>Journal of Astronomical Instrumentation</i> , 2016, 05, 1650001. | 1.5 | 6 |
| 305 | Optically detected magnetic resonances of nitrogen-vacancy ensembles in ^{13}C -enriched diamond. <i>Physical Review B</i> , 2016, 94, . | 3.2 | 6 |
| 306 | Lineshape-asymmetry elimination in weak atomic transitions driven by an intense standing wave field. <i>Optics Letters</i> , 2018, 43, 2241. | 3.3 | 6 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 307 | Extreme nuclear magnetic resonance: Zero field, single spins, dark matter. Journal of Magnetic Resonance, 2019, 306, 66-68. | 2.1 | 6 |
| 308 | Interference-assisted resonant detection of axions. Physics of the Dark Universe, 2019, 24, 100272. | 4.9 | 6 |
| 309 | Development of a recoil ion source providing slow Th ions including ^{229m}Th in a broad charge state distribution. Hyperfine Interactions, 2020, 241, 1. | 0.5 | 6 |
| 310 | Kerr Effect in Liquid Helium at Temperatures Below the Superfluid Transition. Physical Review Letters, 2004, 93, 153003. | 7.8 | 5 |
| 311 | All-optical atomic magnetometers based on nonlinear magneto-optical rotation with amplitude modulated light. , 2007, 6604, 35. | | 5 |
| 312 | Wave-plate retarders based on overhead transparencies. Applied Optics, 2007, 46, 5129. | 2.1 | 5 |
| 313 | Precision polarimetry with real-time mitigation of optical-window birefringence. Review of Scientific Instruments, 2008, 79, 013108. | 1.3 | 5 |
| 314 | Heading error in an alignment-based magnetometer. Proceedings of SPIE, 2011, , . | 0.8 | 5 |
| 315 | Investigation of ac Stark shifts in excited states of dysprosium relevant to testing fundamental symmetries. Physical Review A, 2013, 88, . | 2.5 | 5 |
| 316 | Spin-exchange-relaxation-free (SERF) magnetometers. , 2013, , 85-103. | | 5 |
| 317 | Zero-field nuclear magnetic resonance spectroscopy of viscous liquids. Journal of Magnetic Resonance, 2015, 250, 1-6. | 2.1 | 5 |
| 318 | Comparison between observation and simulation of sodium LGS return flux with a 20W CW laser on Tenerife. Proceedings of SPIE, 2016, , . | 0.8 | 5 |
| 319 | A network of superconducting gravimeters as a detector of matter with feeble nongravitational coupling. European Physical Journal D, 2020, 74, 1. | 1.3 | 5 |
| 320 | Resonance photoproduction of pionic atoms at the proposed Gamma Factory. Physical Review C, 2021, 103, . | 2.9 | 5 |
| 321 | Studies towards a directional polychromatic sodium laser guide star. , 2018, , . | | 5 |
| 322 | Tailorable dispersion in a four-wave mixing laser. Optics Letters, 2017, 42, 2846. | 3.3 | 5 |
| 323 | Robust polarization gradient cooling of trapped ions. New Journal of Physics, 2022, 24, 043028. | 2.9 | 5 |
| 324 | Electrons in a shell. American Journal of Physics, 1998, 66, 572-573. | 0.7 | 4 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 325 | Applications of nonlinear magneto-optic effects with ultra-narrow widths. AIP Conference Proceedings, 1999, , . | 0.4 | 4 |
| 326 | Relation between electromagnetically induced absorption resonances and nonlinear magneto-optics in systems. Physical Review A, 2004, 70, . | 2.5 | 4 |
| 327 | Fluid-flow characterization with nuclear spins without magnetic resonance. Applied Physics Letters, 2008, 93, 092507. | 3.3 | 4 |
| 328 | Rubidium dimers in paraffin-coated cells. New Journal of Physics, 2010, 12, 083054. | 2.9 | 4 |
| 329 | Polarized nuclear target based on parahydrogen induced polarization. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2012, 694, 246-250. | 1.6 | 4 |
| 330 | Nuclear magnetic resonance gyroscopes. , 2013, , 369-386. | | 4 |
| 331 | Quantitative measurements of non-covalent interactions with diamond based magnetic imaging. Applied Physics Letters, 2018, 113, . | 3.3 | 4 |
| 332 | System for control of polarization state of light and generation of light with continuously rotating linear polarization. Review of Scientific Instruments, 2019, 90, 013110. | 1.3 | 4 |
| 333 | Atomic and molecular transitions induced by axions via oscillating nuclear moments. Physical Review D, 2020, 101, . | 4.7 | 4 |
| 334 | Local Lorentz Invariance Tests for Photons and Hadrons at the Gamma Factory. Annalen Der Physik, 0, , 2100141. | 2.4 | 4 |
| 335 | A precise photometric ratio via laser excitation of the sodium layer $\lambda = 819.71 \text{ nm}$. Two-photon excitation using lasers detuned from 589.16 and 819.71 nm resonances. Monthly Notices of the Royal Astronomical Society, 2021, 508, 4412-4428. | 4.4 | 4 |
| 336 | A precise photometric ratio via laser excitation of the sodium layer $\lambda = 342.78 \text{ nm}$. One-photon excitation using 342.78 nm light. Monthly Notices of the Royal Astronomical Society, 2021, 508, 4399-4411. | 4.4 | 4 |
| 337 | Alignment-to-orientation conversion and nuclear quadrupole resonance. Chemical Physics Letters, 2003, 378, 440-448. | 2.6 | 3 |
| 338 | Sensitive optical atomic magnetometer based on nonlinear magneto-optical rotation. Proceedings of SPIE, 2010, , . | 0.8 | 3 |
| 339 | Atomic parity violation in $\langle \sigma \hat{H} \sigma \rangle$ transitions. Physical Review A, 2011, 84, . | | |
| 340 | NV-Diamond Magnetometer Using Electron Irradiation. Materials Research Society Symposia Proceedings, 2013, 1511, 1. | 0.1 | 3 |
| 341 | General principles and characteristics of optical magnetometers. , 2013, , 3-24. | | 3 |
| 342 | Coherent axion-photon transformations in the forward scattering on atoms. Physical Review D, 2018, 98, . | 4.7 | 3 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|------|-----------|
| 343 | Noncovalent force spectroscopy using wide-field optical and diamond-based magnetic imaging. Journal of Applied Physics, 2019, 126, 194502. | 2.5 | 3 |
| 344 | Singulettâ€Kontrastâ€Magnetresonanztomographie: Freisetzung der Hyperpolarisation durch den Metabolismus**. Angewandte Chemie, 2021, 133, 6866-6873. | 2.0 | 3 |
| 345 | Correlation of high-field and zero- to ultralow-field NMR properties using 2D spectroscopy. Journal of Chemical Physics, 2021, 154, 144201. | 3.0 | 3 |
| 346 | Cross-relaxation studies with optically detected magnetic resonances in nitrogen-vacancy centers in diamond in external magnetic field. Physical Review B, 2021, 103, . | 3.2 | 3 |
| 347 | Quantum technologies and the elephants. Quantum Science and Technology, 2021, 6, 040401. | 5.8 | 3 |
| 348 | All-optical spin locking in alkali-metal-vapor magnetometers. Physical Review A, 2022, 105, . | 2.5 | 3 |
| 349 | Do cities have a unique magnetic pulse?. Journal of Applied Physics, 2022, 131, . | 2.5 | 3 |
| 350 | Photoionization and photodissociation properties of Tl2 observed in a hypersonic beam. Chemical Physics Letters, 1994, 229, 35-39. | 2.6 | 2 |
| 351 | How we know that photons are bosons: Experimental tests of spin-statistics for photons. AIP Conference Proceedings, 2000, , . | 0.4 | 2 |
| 352 | Nonlinear and Integrated Magneto-Optics. Journal of the Optical Society of America B: Optical Physics, 2005, 22, 2. | 2.1 | 2 |
| 353 | The Universe in a solid design. Nature Materials, 2010, 9, 608-609. | 27.5 | 2 |
| 354 | Tunable lossless slow and fast light in a four-level N-system. Proceedings of SPIE, 2013, , . | 0.8 | 2 |
| 355 | Optical magnetometry with modulated light. , 0, , 104-124. | | 2 |
| 356 | Vibrational and electronic ultrafast relaxation of the nitrogen-vacancy centers in diamond. EPJ Web of Conferences, 2013, 41, 04009. | 0.3 | 2 |
| 357 | Improving the coherence properties of solid-state spin ensembles via optimized dynamical decoupling. , 2016, , . | | 2 |
| 358 | Paper craft. Nature, 2016, 529, 427-428. | 27.8 | 2 |
| 359 | Evidence for degenerate mirrorless lasing in alkali metal vapor: forward beam magneto-optical experiment. Journal of Physics B: Atomic, Molecular and Optical Physics, 2019, 52, 195003. | 1.5 | 2 |
| 360 | Wu etÂal. Reply:. Physical Review Letters, 2019, 123, 169002. | 7.8 | 2 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 361 | The Revised SI: Fundamental Constants, Basic Physics and Units. Annalen Der Physik, 2019, 531, 1900148. | 2.4 | 2 |
| 362 | Fundamentals of photoelectric readout of spin states in diamond. Semiconductors and Semimetals, 2021, , 105-147. | 0.7 | 2 |
| 363 | Physics Opportunities with the Gamma Factory. Annalen Der Physik, 2022, 534, 2200004. | 2.4 | 2 |
| 364 | Results of table-top fundamental physics experiments at Berkeley. , 2010, , . | | 1 |
| 365 | Pressure broadening and shift of the D1 line of Ag by He, Ar, and N2. Physical Review A, 2012, 86, . | 2.5 | 1 |
| 366 | Detection of nuclear magnetic resonance with atomic magnetometers. , 0, , 265-284. | | 1 |
| 367 | New Atomic Methods for Dark Matter Detection. Journal of Physics: Conference Series, 2015, 635, 022033. | 0.4 | 1 |
| 368 | Sodium vapor cell laser guide star experiments for continuous wave model validation. Proceedings of SPIE, 2016, , . | 0.8 | 1 |
| 369 | Efficient polarization of high-angular-momentum systems. , 2016, , . | | 1 |
| 370 | Low-energy Tests of Fundamental Physics. European Review, 2018, 26, 82-89. | 0.7 | 1 |
| 371 | Isotopic variation of parity violation in atomic ytterbium: Description of the measurement method and analysis of systematic effects. Physical Review A, 2019, 100, . | 2.5 | 1 |
| 372 | Novel Magnetic-Sensing Modalities with Nitrogen-Vacancy Centers in Diamond. , 0, , . | | 1 |
| 373 | Investigation of antirelaxation wall coatings beyond melting temperatures. , 2017, , . | | 1 |
| 374 | Polarization-driven spin precession of mesospheric sodium atoms: publisher's note. Optics Letters, 2019, 44, 138. | 3.3 | 1 |
| 375 | From atomic physics, to upper-atmospheric chemistry, to cosmology: A laser photometric ratio star to calibrate telescopes at major observatories. Natural Sciences, 2022, 2, . | 2.1 | 1 |
| 376 | Deep neural networks to recover unknown physical parameters from oscillating time series. PLoS ONE, 2022, 17, e0268439. | 2.5 | 1 |
| 377 | Parity nonconservation in relativistic hydrogenic ions. , 1999, , . | | 0 |
| 378 | EIT-induced nonlinear precession of the polarization ellipse in rubidium vapor. , 0, , . | | 0 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 379 | Towards an improved test of Bose-Einstein statistics for photons. AIP Conference Proceedings, 2000, , . | 0.4 | 0 |
| 380 | Atomic tests of discrete symmetries at Berkeley. AIP Conference Proceedings, 2001, , . | 0.4 | 0 |
| 381 | Sensitive optical magnetometry based on nonlinear magneto-optical rotation with amplitude-modulated light. , 2007, , . | | 0 |
| 382 | VARIATION OF THE FINE-STRUCTURE CONSTANT AND LASER COOLING OF ATOMIC DYSPROSIUM. , 2009, , . | | 0 |
| 383 | Optimization of cw and pulsed sodium guide star lasers. , 2009, , . | | 0 |
| 384 | An overview of some experimental and theoretical aspects of fundamental symmetry violations in atoms. Pramana - Journal of Physics, 2010, 75, 1041-1056. | 1.8 | 0 |
| 385 | Remote detection magnetometry. , 0, , 251-264. | | 0 |
| 386 | Stark shift and parity nonconservation for near-degenerate states of xenon. Physical Review A, 2014, 89, . | 2.5 | 0 |
| 387 | Fundamental symmetries, Dark Sector and Spectroscopy. , 2015, , . | | 0 |
| 388 | Forty years after the first dark resonance experiment: an overview of the COSMA project results. Proceedings of SPIE, 2016, , . | 0.8 | 0 |
| 389 | Prospects of SPIN Gyroscopes Based on Nitrogen-Vacancy Centers in Diamond. , 2019, , . | | 0 |
| 390 | Chemical Reaction Monitoring using Zero-Field Nuclear Magnetic Resonance Enables Study of Heterogeneous Samples in Metal Containers. Angewandte Chemie, 2020, 132, 17174-17180. | 2.0 | 0 |
| 391 | Rapid parameter estimation of discrete decaying signals using autoencoder networks. Machine Learning: Science and Technology, 2021, 2, 045024. | 5.0 | 0 |
| 392 | Atomic Parity Violation in Heavy Ion Colliders. , 2003, , . | | 0 |
| 393 | Production and detection of atomic hexadecapole at Earth's magnetic field. , 2007, , . | | 0 |
| 394 | New Results from Fundamental-Physics Tests at Berkeley: Atomic Parity Violation, Searches for Variation of α and Bose-Einstein-Statistics Violation by Photons. , 2008, , . | | 0 |
| 395 | Nonlinear Magneto-Optical Rotation for Sensitive Measurement of Magnetic Fields. , 2008, , . | | 0 |
| 396 | Pressure Broadening and Shifts of Silver D1 Line by Nitrogen and Helium. , 2010, , . | | 0 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 397 | Amplitude-modulated Magneto-Optical Rotation in Paraffin-coated Cells and Buffer Gas Cells. , 2010, , . | | 0 |
| 398 | Using lasers to measure magnetic fields. SPIE Newsroom, 0, , . | 0.1 | 0 |
| 399 | 21st International Conference on Laser Spectroscopy â€” ICOLS 2013. Journal of Physics: Conference Series, 2013, 467, 011001. | 0.4 | 0 |
| 400 | Mechanics, Heat, and General Physics. , 2015, , 1-27. | | 0 |
| 401 | Prospects of Spin Gyroscopes Based on Nitrogen-Vacancy Centers in Diamond. , 2018, , . | | 0 |
| 402 | Simulations of continuous-wave sodium laser guide stars with polarization modulation at Larmor frequency. , 2018, , . | | 0 |
| 403 | Microwave-free vector magnetometry based on nitrogen vacancy ensembles in diamond. , 2019, , . | | 0 |
| 404 | Zero-field magnetometry based on nitrogen-vacancy ensembles in diamond. , 2019, , . | | 0 |
| 405 | Intensity spiking and oscillation in frequency-upconverted field from four-wave mixing in rubidium vapor. , 2021, , . | | 0 |
| 406 | Parityâ€”Violation Studies with Partially Stripped Ions. Annalen Der Physik, 0, , 2100561. | 2.4 | 0 |
| 407 | Selective Control of High-Order Atomic Coherences. , 2005, , 91-104. | | 0 |