

# Dmitry Budker

## List of Publications by Citations

**Source:** <https://exaly.com/author-pdf/5915947/dmitry-budker-publications-by-citations.pdf>

**Version:** 2024-04-27

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

368  
papers

13,977  
citations

55  
h-index

106  
g-index

421  
ext. papers

16,933  
ext. citations

5.6  
avg, IF

6.66  
L-index

#	Paper	IF	Citations
368	High-sensitivity diamond magnetometer with nanoscale resolution. <i>Nature Physics</i> , <b>2008</b> , 4, 810-816	16.2	1110
367	Optical magnetometry. <i>Nature Physics</i> , <b>2007</b> , 3, 227-234	16.2	971
366	Resonant nonlinear magneto-optical effects in atoms. <i>Reviews of Modern Physics</i> , <b>2002</b> , 74, 1153-1201	40.5	526
365	Nonlinear Magneto-optics and Reduced Group Velocity of Light in Atomic Vapor with Slow Ground State Relaxation. <i>Physical Review Letters</i> , <b>1999</b> , 83, 1767-1770	7.4	507
364	Search for new physics with atoms and molecules. <i>Reviews of Modern Physics</i> , <b>2018</b> , 90,	40.5	501
363	Solid-state electronic spin coherence time approaching one second. <i>Nature Communications</i> , <b>2013</b> , 4, 1743	17.4	396
362	Temperature dependence of the nitrogen-vacancy magnetic resonance in diamond. <i>Physical Review Letters</i> , <b>2010</b> , 104, 070801	7.4	355
361	Diamonds with a high density of nitrogen-vacancy centers for magnetometry applications. <i>Physical Review B</i> , <b>2009</b> , 80,	3.3	331
360	Sensitive magnetometry based on nonlinear magneto-optical rotation. <i>Physical Review A</i> , <b>2000</b> , 62,	2.6	229
359	Temperature- and magnetic-field-dependent longitudinal spin relaxation in nitrogen-vacancy ensembles in diamond. <i>Physical Review Letters</i> , <b>2012</b> , 108, 197601	7.4	228
358	Proposal for a Cosmic Axion Spin Precession Experiment (CASPER). <i>Physical Review X</i> , <b>2014</b> , 4,	9.1	193
357	Nonlinear Magneto-optic Effects with Ultranarrow Widths. <i>Physical Review Letters</i> , <b>1998</b> , 81, 5788-5791	7.4	187
356	Spin-exchange-relaxation-free magnetometry with Cs vapor. <i>Physical Review A</i> , <b>2008</b> , 77,	2.6	178
355	Polarized alkali-metal vapor with minute-long transverse spin-relaxation time. <i>Physical Review Letters</i> , <b>2010</b> , 105, 070801	7.4	166
354	Observation of a large atomic parity violation effect in ytterbium. <i>Physical Review Letters</i> , <b>2009</b> , 103, 071601	7.4	132
353	Magnetic resonance imaging with an optical atomic magnetometer. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2006</b> , 103, 12668-71	11.5	129
352	Optical properties of the nitrogen-vacancy singlet levels in diamond. <i>Physical Review B</i> , <b>2010</b> , 82,	3.3	125

351	Light-induced desorption of alkali-metal atoms from paraffin coating. <i>Physical Review A</i> , <b>2002</b> , 66,	2.6	124
350	Search for Ultralight Scalar Dark Matter with Atomic Spectroscopy. <i>Physical Review Letters</i> , <b>2015</b> , 115, 011802	7.4	120
349	Parahydrogen-enhanced zero-field nuclear magnetic resonance. <i>Nature Physics</i> , <b>2011</b> , 7, 571-575	16.2	111
348	Photoelectric detection of electron spin resonance of nitrogen-vacancy centres in diamond. <i>Nature Communications</i> , <b>2015</b> , 6, 8577	17.4	102
347	Broadband magnetometry by infrared-absorption detection of nitrogen-vacancy ensembles in diamond. <i>Applied Physics Letters</i> , <b>2010</b> , 97, 174104	3.4	101
346	Zero-field remote detection of NMR with a microfabricated atomic magnetometer. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2008</b> , 105, 2286-90	11.5	94
345	Microwave transitions and nonlinear magneto-optical rotation in anti-relaxation-coated cells. <i>Physical Review A</i> , <b>2005</b> , 71,	2.6	93
344	Cavity-enhanced room-temperature magnetometry using absorption by nitrogen-vacancy centers in diamond. <i>Physical Review Letters</i> , <b>2014</b> , 112, 160802	7.4	90
343	Temperature shifts of the resonances of the NV center in diamond. <i>Physical Review B</i> , <b>2014</b> , 90,	3.3	90
342	Relaxation of atomic polarization in paraffin-coated cesium vapor cells. <i>Physical Review A</i> , <b>2005</b> , 72,	2.6	89
341	Nonlinear magneto-optical rotation with frequency-modulated light. <i>Physical Review A</i> , <b>2002</b> , 65,	2.6	89
340	Can a quantum nondemolition measurement improve the sensitivity of an atomic magnetometer?. <i>Physical Review Letters</i> , <b>2004</b> , 93, 173002	7.4	87
339	Detecting domain walls of axionlike models using terrestrial experiments. <i>Physical Review Letters</i> , <b>2013</b> , 110, 021803	7.4	86
338	Laser frequency stabilization using linear magneto-optics. <i>Review of Scientific Instruments</i> , <b>2000</b> , 71, 3413-346	3.46	84
337	All-optical vector atomic magnetometer. <i>Physical Review Letters</i> , <b>2014</b> , 113, 013001	7.4	83
336	Optical detection of NMR J-spectra at zero magnetic field. <i>Journal of Magnetic Resonance</i> , <b>2009</b> , 199, 25-9	3	79
335	Electromagnetically induced transparency in a diamond spin ensemble enables all-optical electromagnetic field sensing. <i>Physical Review Letters</i> , <b>2013</b> , 110, 213605	7.4	78
334	New limits on variation of the fine-structure constant using atomic dysprosium. <i>Physical Review Letters</i> , <b>2013</b> , 111, 060801	7.4	78

333	Bulk nuclear polarization enhanced at room temperature by optical pumping. <i>Physical Review Letters</i> , <b>2013</b> , 111, 057601	7.4	78
332	Gyroscopes based on nitrogen-vacancy centers in diamond. <i>Physical Review A</i> , <b>2012</b> , 86,	2.6	77
331	Near-zero-field nuclear magnetic resonance. <i>Physical Review Letters</i> , <b>2011</b> , 107, 107601	7.4	77
330	Nonlinear magneto-optical rotation via alignment-to-orientation conversion. <i>Physical Review Letters</i> , <b>2000</b> , 85, 2088-91	7.4	76
329	Zero-field NMR enhanced by parahydrogen in reversible exchange. <i>Journal of the American Chemical Society</i> , <b>2012</b> , 134, 3987-90	16.4	74
328	Probing New Long-Range Interactions by Isotope Shift Spectroscopy. <i>Physical Review Letters</i> , <b>2018</b> , 120, 091801	7.4	73
327	Nonlinear magneto-optical rotation with frequency-modulated light in the geophysical field range. <i>Physical Review A</i> , <b>2006</b> , 73,	2.6	73
326	Optical polarization of nuclear ensembles in diamond. <i>Physical Review B</i> , <b>2013</b> , 87,	3.3	69
325	Limits on violations of Lorentz symmetry and the Einstein equivalence principle using radio-frequency spectroscopy of atomic dysprosium. <i>Physical Review Letters</i> , <b>2013</b> , 111, 050401	7.4	67
324	Limit on the temporal variation of the fine-structure constant using atomic dysprosium. <i>Physical Review Letters</i> , <b>2007</b> , 98, 040801	7.4	67
323	Nonlinear magneto-optical rotation with amplitude modulated light. <i>Applied Physics Letters</i> , <b>2006</b> , 88, 131108	3.4	67
322	Self-rotation of resonant elliptically polarized light in collision-free rubidium vapor. <i>Physical Review A</i> , <b>2001</b> , 63,	2.6	67
321	Detection of nanoscale electron spin resonance spectra demonstrated using nitrogen-vacancy centre probes in diamond. <i>Nature Communications</i> , <b>2016</b> , 7, 10211	17.4	65
320	The Global Network of Optical Magnetometers for Exotic physics (GNOME): A novel scheme to search for physics beyond the Standard Model. <i>Annalen Der Physik</i> , <b>2013</b> , 525, 659-670	2.6	64
319	Magnetometry with millimeter-scale antirelaxation-coated alkali-metal vapor cells. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>2006</b> , 23, 1001	1.7	62
318	Hyperpolarized xenon nuclear spins detected by optical atomic magnetometry. <i>Physical Review Letters</i> , <b>2004</b> , 93, 160801	7.4	62
317	Optimization of cw sodium laser guide star efficiency. <i>Astronomy and Astrophysics</i> , <b>2010</b> , 510, A20	5.1	60
316	Vacuum squeezing in atomic media via self-rotation. <i>Physical Review A</i> , <b>2002</b> , 66,	2.6	60

315	Microwave-free magnetometry with nitrogen-vacancy centers in diamond. <i>Applied Physics Letters</i> , <b>2016</b> , 109, 053505	3.4	59
314	Invited Review Article: Instrumentation for nuclear magnetic resonance in zero and ultralow magnetic field. <i>Review of Scientific Instruments</i> , <b>2017</b> , 88, 091101	1.7	58
313	Optimizing a dynamical decoupling protocol for solid-state electronic spin ensembles in diamond. <i>Physical Review B</i> , <b>2015</b> , 92,	3.3	55
312	Roadmap on STIRAP applications. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>2019</b> , 52, 202001	1.3	54
311	Light narrowing of magnetic resonances in ensembles of nitrogen-vacancy centers in diamond. <i>Physical Review B</i> , <b>2013</b> , 87,	3.3	54
310	Imaging the Local Charge Environment of Nitrogen-Vacancy Centers in Diamond. <i>Physical Review Letters</i> , <b>2018</b> , 121, 246402	7.4	54
309	Search for parity nonconservation in atomic dysprosium. <i>Physical Review A</i> , <b>1997</b> , 56, 3453-3463	2.6	53
308	Dynamic effects in nonlinear magneto-optics of atoms and molecules: review. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>2005</b> , 22, 7	1.7	53
307	Nonlinear laser spectroscopy and magneto-optics. <i>American Journal of Physics</i> , <b>1999</b> , 67, 584-592	0.7	53
306	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> , <b>2014</b> , 90,	4.9	52
305	Relaxion stars and their detection via atomic physics. <i>Communications Physics</i> , <b>2020</b> , 3,	5.4	50
304	Selective addressing of high-rank atomic polarization moments. <i>Physical Review Letters</i> , <b>2003</b> , 90, 253004	1.4	50
303	Zero- to Ultralow-Field NMR <b>2016</b> , 1395-1410		49
302	Limiting P-odd interactions of cosmic fields with electrons, protons, and neutrons. <i>Physical Review Letters</i> , <b>2014</b> , 113, 081601	7.4	49
301	Infrared absorption band and vibronic structure of the nitrogen-vacancy center in diamond. <i>Physical Review B</i> , <b>2013</b> , 88,	3.3	48
300	High magnetic fields for fundamental physics. <i>Physics Reports</i> , <b>2018</b> , 765-766, 1-39	27.7	48
299	Search for Axionlike Dark Matter with a Liquid-State Nuclear Spin Comagnetometer. <i>Physical Review Letters</i> , <b>2019</b> , 122, 191302	7.4	47
298	High-resolution zero-field NMR J-spectroscopy of aromatic compounds. <i>Journal of the American Chemical Society</i> , <b>2013</b> , 135, 3607-12	16.4	46

297	Miniature Cavity-Enhanced Diamond Magnetometer. <i>Physical Review Applied</i> , <b>2017</b> , 8,	4.3	45
296	Influence of magnetic-field inhomogeneity on nonlinear magneto-optical resonances. <i>Physical Review A</i> , <b>2006</b> , 74,	2.6	45
295	Solution nuclear magnetic resonance spectroscopy on a nanostructured diamond chip. <i>Nature Communications</i> , <b>2017</b> , 8, 188	17.4	44
294	Magnetometry with nitrogen-vacancy ensembles in diamond based on infrared absorption in a doubly resonant optical cavity. <i>Physical Review B</i> , <b>2013</b> , 87,	3.3	44
293	Sensitive magnetic control of ensemble nuclear spin hyperpolarization in diamond. <i>Nature Communications</i> , <b>2013</b> , 4, 1940	17.4	44
292	Long-lived heteronuclear spin-singlet states in liquids at a zero magnetic field. <i>Physical Review Letters</i> , <b>2014</b> , 112, 077601	7.4	43
291	Detection of radio-frequency magnetic fields using nonlinear magneto-optical rotation. <i>Physical Review A</i> , <b>2007</b> , 75,	2.6	43
290	Controlling atomic vapor density in paraffin-coated cells using light-induced atomic desorption. <i>Physical Review A</i> , <b>2009</b> , 79,	2.6	41
289	Towards a sensitive search for variation of the fine-structure constant using radio-frequency E1 transitions in atomic dysprosium. <i>Physical Review A</i> , <b>2004</b> , 69,	2.6	41
288	Construction and applications of an atomic magnetic gradiometer based on nonlinear magneto-optical rotation. <i>Review of Scientific Instruments</i> , <b>2006</b> , 77, 083106	1.7	40
287	Cancellation of nonlinear Zeeman shifts with light shifts. <i>Physical Review A</i> , <b>2009</b> , 79,	2.6	39
286	Atomic polarization visualized. <i>American Journal of Physics</i> , <b>2001</b> , 69, 450-454	0.7	39
285	Eddy current imaging with an atomic radio-frequency magnetometer. <i>Applied Physics Letters</i> , <b>2016</b> , 108, 183507	3.4	39
284	Vibrational and electronic dynamics of nitrogen-vacancy centres in diamond revealed by two-dimensional ultrafast spectroscopy. <i>Nature Physics</i> , <b>2013</b> , 9, 744-749	16.2	38
283	Longitudinal spin relaxation in nitrogen-vacancy ensembles in diamond. <i>EPJ Quantum Technology</i> , <b>2015</b> , 2,	6.9	38
282	Investigation of the gravitational-potential dependence of the fine-structure constant using atomic dysprosium. <i>Physical Review A</i> , <b>2007</b> , 76,	2.6	37
281	Directional infrared emission resulting from cascade population inversion and four-wave mixing in Rb vapor. <i>Optics Letters</i> , <b>2014</b> , 39, 845-8	3	36
280	Submillimeter-resolution magnetic resonance imaging at the Earth's magnetic field with an atomic magnetometer. <i>Physical Review A</i> , <b>2008</b> , 78,	2.6	36

279	Constraints on bosonic dark matter from ultralow-field nuclear magnetic resonance. <i>Science Advances</i> , <b>2019</b> , 5, eaax4539	14.3	35
278	Detection of the Meissner effect with a diamond magnetometer. <i>New Journal of Physics</i> , <b>2011</b> , 13, 025017	17.9	35
277	Robust, high-speed, all-optical atomic magnetometer. <i>Review of Scientific Instruments</i> , <b>2006</b> , 77, 113106	1.7	35
276	Search for Exchange-Antisymmetric Two-Photon States. <i>Physical Review Letters</i> , <b>1999</b> , 83, 3978-3981	7.4	35
275	Experimental investigation of excited-state lifetimes in atomic ytterbium. <i>Physical Review A</i> , <b>1996</b> , 53, 3103-3109	2.6	35
274	Zero-Field Magnetometry Based on Nitrogen-Vacancy Ensembles in Diamond. <i>Physical Review Applied</i> , <b>2019</b> , 11,	4.3	34
273	Constraints on exotic spin-dependent interactions between electrons from helium fine-structure spectroscopy. <i>Physical Review A</i> , <b>2017</b> , 95,	2.6	33
272	The cosmic axion spin precession experiment (CASPEr): a dark-matter search with nuclear magnetic resonance. <i>Quantum Science and Technology</i> , <b>2018</b> , 3, 014008	5.5	33
271	Nonlinear magneto-optical rotation with modulated light in tilted magnetic fields. <i>Physical Review A</i> , <b>2006</b> , 74,	2.6	33
270	Experimental investigation of excited states in atomic dysprosium. <i>Physical Review A</i> , <b>1994</b> , 50, 132-143	2.6	33
269	Polarization transfer via field sweeping in parahydrogen-enhanced nuclear magnetic resonance. <i>Journal of Chemical Physics</i> , <b>2019</b> , 150, 174202	3.9	32
268	Measurement of untruncated nuclear spin interactions via zero- to ultralow-field nuclear magnetic resonance. <i>Physical Review B</i> , <b>2015</b> , 92,	3.3	32
267	Room-temperature operation of a radiofrequency diamond magnetometer near the shot-noise limit. <i>Journal of Applied Physics</i> , <b>2012</b> , 112, 124519	2.5	32
266	Real-Time Nuclear Magnetic Resonance Detection of Fumarase Activity Using Parahydrogen-Hyperpolarized [1-C]Fumarate. <i>Journal of the American Chemical Society</i> , <b>2019</b> , 141, 20209-20214	16.4	32
265	Sensitivity of condensed-matter P- and T-violation experiments. <i>Physical Review A</i> , <b>2006</b> , 73,	2.6	31
264	Pump-probe nonlinear magneto-optical rotation with frequency-modulated light. <i>Physical Review A</i> , <b>2006</b> , 73,	2.6	30
263	Nonlinear magneto-optical rotation of frequency-modulated light resonant with a low-J transition. <i>Physical Review A</i> , <b>2004</b> , 69,	2.6	30
262	Application of spin-exchange relaxation-free magnetometry to the Cosmic Axion Spin Precession Experiment. <i>Physics of the Dark Universe</i> , <b>2018</b> , 19, 27-35	4.4	30

261	Microwave saturation spectroscopy of nitrogen-vacancy ensembles in diamond. <i>Physical Review B</i> , <b>2014</b> , 89,	3.3	29
260	A remotely interrogated all-optical <sup>87</sup> Rb magnetometer. <i>Applied Physics Letters</i> , <b>2012</b> , 101, 083502	3.4	29
259	Fundamental aspects of parahydrogen enhanced low-field nuclear magnetic resonance. <i>Physical Review Letters</i> , <b>2013</b> , 110, 137602	7.4	29
258	Parity violation in atomic ytterbium: Experimental sensitivity and systematics. <i>Physical Review A</i> , <b>2010</b> , 81,	2.6	29
257	Dynamic Stark effect and forbidden-transition spectral line shapes. <i>Physical Review A</i> , <b>2006</b> , 73,	2.6	29
256	Experimental investigation of the 6s21S0->5d6s3D1,2 forbidden transitions in atomic ytterbium. <i>Physical Review A</i> , <b>1999</b> , 59, 3513-3526	2.6	29
255	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> , <b>2019</b> , 99,	2.6	29
254	Searching for axion stars and Q-balls with a terrestrial magnetometer network. <i>Physical Review D</i> , <b>2018</b> , 97,	4.9	28
253	Diamond magnetometry of superconducting thin films. <i>Physical Review B</i> , <b>2014</b> , 89,	3.3	28
252	Investigation of antirelaxation coatings for alkali-metal vapor cells using surface science techniques. <i>Journal of Chemical Physics</i> , <b>2010</b> , 133, 144703	3.9	28
251	Isotopic variation of parity violation in atomic ytterbium. <i>Nature Physics</i> , <b>2019</b> , 15, 120-123	16.2	28
250	Precessing Ferromagnetic Needle Magnetometer. <i>Physical Review Letters</i> , <b>2016</b> , 116, 190801	7.4	27
249	Chemical analysis using J-coupling multiplets in zero-field NMR. <i>Chemical Physics Letters</i> , <b>2013</b> , 580, 160-165	27	
248	Liquid-state nuclear spin comagnetometers. <i>Physical Review Letters</i> , <b>2012</b> , 108, 243001	7.4	26
247	Characterization of the global network of optical magnetometers to search for exotic physics (GNOME). <i>Physics of the Dark Universe</i> , <b>2018</b> , 22, 162-180	4.4	26
246	Experimental benchmarking of quantum control in zero-field nuclear magnetic resonance. <i>Science Advances</i> , <b>2018</b> , 4, eaar6327	14.3	25
245	Magnetometry with mesospheric sodium. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2011</b> , 108, 3522-5	11.5	25
244	Nonlinear magneto-optical rotation and Zeeman and hyperfine relaxation of potassium atoms in a paraffin-coated cell. <i>Physical Review A</i> , <b>2006</b> , 74,	2.6	25



243	Longitudinal spin-relaxation in nitrogen-vacancy centers in electron irradiated diamond. <i>Applied Physics Letters</i> , <b>2015</b> , 107, 242403	3.4	24
242	Modeling of pulsed-laser guide stars for the Thirty Meter Telescope project. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>2012</b> , 29, 2176	1.7	24
241	Parity Nonconservation in Relativistic Hydrogenic Ions. <i>Physical Review Letters</i> , <b>1997</b> , 78, 4717-4720	7.4	24
240	Sensitive magnetometry reveals inhomogeneities in charge storage and weak transient internal currents in Li-ion cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2020</b> , 117, 10667-10672	11.5	23
239	Suppression of the Nonlinear Zeeman Effect and Heading Error in Earth-Field-Range Alkali-Vapor Magnetometers. <i>Physical Review Letters</i> , <b>2018</b> , 120, 033202	7.4	23
238	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> , <b>2012</b> , 101, 82410	3.4	23
237	Nonlinear magneto-optical rotation in the presence of a radio-frequency field. <i>Optics Express</i> , <b>2010</b> , 18, 25494-508	3.3	23
236	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> , <b>2008</b> , 105, 2271-3	11.5	23
235	Wide-Field Imaging of Superconductor Vortices with Electron Spins in Diamond. <i>Physical Review Applied</i> , <b>2018</b> , 10,	4.3	23
234	Application of atomic magnetometry in magnetic particle detection. <i>Applied Physics Letters</i> , <b>2006</b> , 89, 224105	3.4	22
233	Search for the Effect of Massive Bodies on Atomic Spectra and Constraints on Yukawa-Type Interactions of Scalar Particles. <i>Physical Review Letters</i> , <b>2016</b> , 117, 271601	7.4	22
232	Direct limits on the interaction of antiprotons with axion-like dark matter. <i>Nature</i> , <b>2019</b> , 575, 310-314	50.4	22
231	Sidebands in optically detected magnetic resonance signals of nitrogen vacancy centers in diamond. <i>Physical Review B</i> , <b>2013</b> , 87,	3.3	21
230	Hyperfine frequency shift and Zeeman relaxation in alkali-metal-vapor cells with antirelaxation alkene coating. <i>Physical Review A</i> , <b>2013</b> , 87,	2.6	21
229	Production of long-lived atomic vapor inside high-density buffer gas. <i>Physical Review A</i> , <b>2008</b> , 77,	2.6	21
228	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> , <b>2021</b> , 118,	11.5	21
227	Constraints on Exotic Spin-Dependent Interactions Between Matter and Antimatter from Antiprotonic Helium Spectroscopy. <i>Physical Review Letters</i> , <b>2018</b> , 120, 183002	7.4	21
226	Characterization of high-temperature performance of cesium vapor cells with anti-relaxation coating. <i>Journal of Applied Physics</i> , <b>2017</b> , 121, 063104	2.5	20

225	Scalar Dark Matter in the Radio-Frequency Band: Atomic-Spectroscopy Search Results. <i>Physical Review Letters</i> , <b>2019</b> , 123, 141102	7.4	20
224	Nuclear-Spin Comagnetometer Based on a Liquid of Identical Molecules. <i>Physical Review Letters</i> , <b>2018</b> , 121, 023202	7.4	20
223	Transverse laser cooling of a thermal atomic beam of dysprosium. <i>Physical Review A</i> , <b>2010</b> , 81,	2.6	20
222	Note: Detection of a single cobalt microparticle with a microfabricated atomic magnetometer. <i>Review of Scientific Instruments</i> , <b>2011</b> , 82, 086112	1.7	20
221	Measurement of lifetimes and tensor polarizabilities of odd-parity states of atomic samarium. <i>Physical Review A</i> , <b>1999</b> , 59, 3480-3494	2.6	20
220	Zero- to ultralow-field nuclear magnetic resonance J-spectroscopy with commercial atomic magnetometers. <i>Journal of Magnetic Resonance</i> , <b>2020</b> , 314, 106723	3	20
219	Microwave-Free Vector Magnetometry with Nitrogen-Vacancy Centers along a Single Axis in Diamond. <i>Physical Review Applied</i> , <b>2020</b> , 13,	4.3	19
218	Nuclear magnetic resonance at millitesla fields using a zero-field spectrometer. <i>Journal of Magnetic Resonance</i> , <b>2016</b> , 270, 35-39	3	19
217	Multiplets at zero magnetic field: the geometry of zero-field NMR. <i>Journal of Chemical Physics</i> , <b>2013</b> , 138, 184202	3.9	19
216	Measurement of hyperfine structure and isotope shifts in the Dy 421 nm transition. <i>Optics Letters</i> , <b>2009</b> , 34, 2548-50	3	19
215	Measurement of the forbidden $6s21S0 \rightarrow 5d6s3D1$ magnetic-dipole transition amplitude in atomic ytterbium. <i>Physical Review A</i> , <b>2002</b> , 66,	2.6	19
214	Nonlinear electro- and magneto-optical effects related to Bennett structures. <i>Physical Review A</i> , <b>2002</b> , 65,	2.6	19
213	Spin-lattice relaxation of individual solid-state spins. <i>Physical Review B</i> , <b>2018</b> , 97,	3.3	18
212	Ultra-low-field NMR relaxation and diffusion measurements using an optical magnetometer. <i>Angewandte Chemie - International Edition</i> , <b>2014</b> , 53, 9766-70	16.4	18
211	Spectroscopic test of bose-einstein statistics for photons. <i>Physical Review Letters</i> , <b>2010</b> , 104, 253604	7.4	18
210	Flow in porous metallic materials: a magnetic resonance imaging study. <i>Journal of Magnetic Resonance Imaging</i> , <b>2008</b> , 28, 1299-302	5.6	18
209	Trapping and sympathetic cooling of single thorium ions for spectroscopy. <i>Physical Review A</i> , <b>2019</b> , 99,	2.6	18
208	Dynamics of a Ferromagnetic Particle Levitated over a Superconductor. <i>Physical Review Applied</i> , <b>2019</b> , 11,	4.3	17

207	Parahydrogen-induced polarization at zero magnetic field. <i>Journal of Chemical Physics</i> , <b>2013</b> , 138, 234201,9	3.9	17
206	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> , <b>2009</b> , 80,	2.6	17
205	Constraints on anomalous spin-spin interactions from spin-exchange collisions. <i>Physical Review A</i> , <b>2010</b> , 82,	2.6	17
204	Remote sensing of geomagnetic fields and atomic collisions in the mesosphere. <i>Nature Communications</i> , <b>2018</b> , 9, 3981	17.4	17
203	C-Decoupled J-Coupling Spectroscopy Using Two-Dimensional Nuclear Magnetic Resonance at Zero-Field. <i>Journal of Physical Chemistry Letters</i> , <b>2017</b> , 8, 1512-1516	6.4	16
202	Eddy-Current Imaging with Nitrogen-Vacancy Centers in Diamond. <i>Physical Review Applied</i> , <b>2019</b> , 11,	4.3	16
201	Nondestructive in-line sub-picomolar detection of magnetic nanoparticles in flowing complex fluids. <i>Scientific Reports</i> , <b>2018</b> , 8, 3491	4.9	16
200	Noise characterization of an atomic magnetometer at sub-millihertz frequencies. <i>Sensors and Actuators A: Physical</i> , <b>2015</b> , 224, 147-155	3.9	16
199	Alkali-vapor magnetic resonance driven by fictitious radiofrequency fields. <i>Applied Physics Letters</i> , <b>2014</b> , 105, 192406	3.4	16
198	Sensitive magnetometry in challenging environments. <i>AVS Quantum Science</i> , <b>2020</b> , 2, 044702	10.3	15
197	Magnetic shielding and exotic spin-dependent interactions. <i>Physical Review D</i> , <b>2016</b> , 94,	4.9	15
196	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> , <b>2014</b> , 763, 150-154	1.2	15
195	Magnetometry with Nitrogen-Vacancy Centers in Diamond. <i>Smart Sensors, Measurement and Instrumentation</i> , <b>2017</b> , 553-576	0.3	15
194	Zero-field nuclear magnetic resonance. <i>Physics Today</i> , <b>2013</b> , 66, 44-49	0.9	15
193	Search for plant biomagnetism with a sensitive atomic magnetometer. <i>Journal of Applied Physics</i> , <b>2011</b> , 109, 074701	2.5	15
192	Production and detection of atomic hexadecapole at Earth's magnetic field. <i>Optics Express</i> , <b>2008</b> , 16, 11423-30	3.3	15
191	Magnetolectric Jones dichroism in atoms. <i>Physical Review Letters</i> , <b>2003</b> , 91, 263901	7.4	15
190	Efficient population transfer in a multilevel system using diverging laser beams. <i>Physical Review A</i> , <b>2000</b> , 63,	2.6	15

189	Singlet-Contrast Magnetic Resonance Imaging: Unlocking Hyperpolarization with Metabolism*. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 6791-6798	16.4	15
188	Transition-Selective Pulses in Zero-Field Nuclear Magnetic Resonance. <i>Journal of Physical Chemistry A</i> , <b>2016</b> , 120, 4343-8	2.8	14
187	Zero-field nuclear magnetic resonance of chemically exchanging systems. <i>Nature Communications</i> , <b>2019</b> , 10, 3002	17.4	14
186	Parametric wave mixing enhanced by velocity-insensitive two-photon excitation in Rb vapor. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>2017</b> , 34, 1016	1.7	14
185	Orientation-to-alignment conversion and spin squeezing. <i>Physical Review A</i> , <b>2012</b> , 85,	2.6	14
184	Nuclear-spin relaxation of Pb207 in ferroelectric powders. <i>Physical Review A</i> , <b>2008</b> , 77,	2.6	14
183	Investigation of nearly degenerate opposite parity states in atomic dysprosium. <i>Physical Review Letters</i> , <b>1993</b> , 70, 3019-3022	7.4	14
182	Measurement of the Stark-induced amplitudes of the 6P1/2-->7P1/2 transition in atomic thallium. <i>Physical Review A</i> , <b>1994</b> , 50, 4657-4670	2.6	14
181	Atomic Physics Studies at the Gamma Factory at CERN. <i>Annalen Der Physik</i> , <b>2020</b> , 532, 2000204	2.6	14
180	Coherent population oscillations with nitrogen-vacancy color centers in diamond. <i>Physical Review B</i> , <b>2016</b> , 94,	3.3	13
179	Controllable steep dispersion with gain in a four-level N-scheme with four-wave mixing. <i>Journal of Modern Optics</i> , <b>2013</b> , 60, 64-72	1.1	13
178	A method for measurement of spin-spin couplings with sub-mHz precision using zero- to ultralow-field nuclear magnetic resonance. <i>Journal of Magnetic Resonance</i> , <b>2017</b> , 284, 66-72	3	13
177	Overview of the Cosmic Axion Spin Precession Experiment (CASPER). <i>Springer Proceedings in Physics</i> , <b>2020</b> , 105-121	0.2	13
176	Chemical Reaction Monitoring using Zero-Field Nuclear Magnetic Resonance Enables Study of Heterogeneous Samples in Metal Containers. <i>Angewandte Chemie - International Edition</i> , <b>2020</b> , 59, 17026-17032	16.4	12
175	Analysis method for detecting topological defect dark matter with a global magnetometer network. <i>Physics of the Dark Universe</i> , <b>2020</b> , 28, 100494	4.4	12
174	Collisional perturbation of states in atomic ytterbium by helium and neon. <i>Physical Review A</i> , <b>1999</b> , 60, 1103-1112	2.6	12
173	Infrared laser threshold magnetometry with a NV doped diamond intracavity etalon. <i>Optics Express</i> , <b>2019</b> , 27, 1706-1717	3.3	12
172	Polychromatic, continuous-wave mirrorless lasing from monochromatic pumping of cesium vapor. <i>Optics Letters</i> , <b>2019</b> , 44, 3657-3660	3	12

171	Action potentials induce biomagnetic fields in carnivorous Venus flytrap plants. <i>Scientific Reports</i> , <b>2021</b> , 11, 1438	4.9	12
170	Towards improved measurements of parity violation in atomic ytterbium. <i>Hyperfine Interactions</i> , <b>2017</b> , 238, 1	0.8	11
169	Magnetic Gradiometer for the Detection of Zero- to Ultralow-Field Nuclear Magnetic Resonance. <i>Physical Review Applied</i> , <b>2019</b> , 11,	4.3	11
168	On the Possibility of Miniature Diamond-Based Magnetometers Using Waveguide Geometries. <i>Micromachines</i> , <b>2018</b> , 9,	3.3	11
167	Axion quark nuggets and how a global network can discover them. <i>Physical Review D</i> , <b>2020</b> , 101,	4.9	11
166	Color Centers in Diamond as Novel Probes of Superconductivity. <i>Journal of Superconductivity and Novel Magnetism</i> , <b>2019</b> , 32, 85-95	1.5	11
165	Optical quenching and recovery of photoconductivity in single-crystal diamond. <i>Applied Physics Letters</i> , <b>2017</b> , 110, 011108	3.4	10
164	Investigation of two-frequency Paul traps for antihydrogen production. <i>Hyperfine Interactions</i> , <b>2017</b> , 238, 1	0.8	10
163	A data archive for storing precision measurements. <i>Physics Today</i> , <b>2015</b> , 68, 10-11	0.9	10
162	Magneto-optical cooling of atoms. <i>Optics Letters</i> , <b>2014</b> , 39, 4502-5	3	10
161	Broadband magnetometry by infrared-absorption detection of diamond NV centers and associated temperature dependence <b>2011</b> ,		10
160	Small-sized dichroic atomic vapor laser lock. <i>Review of Scientific Instruments</i> , <b>2011</b> , 82, 043107	1.7	10
159	Continuous-wave mirrorless lasing at 2.21 $\mu\text{m}$ in sodium vapors. <i>Optics Letters</i> , <b>2018</b> , 43, 5279-5282	3	10
158	Vector light shift averaging in paraffin-coated alkali vapor cells. <i>Optics Express</i> , <b>2016</b> , 24, 15383-90	3.3	10
157	Floquet maser. <i>Science Advances</i> , <b>2021</b> , 7,	14.3	10
156	Hyperfine level structure in nitrogen-vacancy centers near the ground-state level anticrossing. <i>Physical Review B</i> , <b>2019</b> , 100,	3.3	9
155	Linewidth of collimated wavelength-converted emission in Rb vapour. <i>Applied Physics B: Lasers and Optics</i> , <b>2014</b> , 117, 203-209	1.9	9
154	Light-induced changes in an alkali metal atomic vapor cell coating studied by X-ray photoelectron spectroscopy. <i>Journal of Applied Physics</i> , <b>2013</b> , 114, 094513	2.5	9

153	Optical control of resonant light transmission for an atom-cavity system. <i>Physical Review A</i> , <b>2015</b> , 91,	2.6	9
152	Relaxivity of gadolinium complexes detected by atomic magnetometry. <i>Magnetic Resonance in Medicine</i> , <b>2011</b> , 66, 605-8	4.4	9
151	Production of dry powder clots using a piezoelectric drop generator. <i>Review of Scientific Instruments</i> , <b>2002</b> , 73, 2331-2335	1.7	9
150	Gamma Factory at CERN --- Novel Research Tools Made of Light. <i>Acta Physica Polonica B</i> , <b>2019</b> , 50, 1191	1.9	9
149	Search for Axionlike Dark Matter Using Solid-State Nuclear Magnetic Resonance. <i>Physical Review Letters</i> , <b>2021</b> , 126, 141802	7.4	9
148	Dichroic atomic vapor laser lock with multi-gigahertz stabilization range. <i>Review of Scientific Instruments</i> , <b>2016</b> , 87, 063107	1.7	9
147	Level anti-crossing magnetometry with color centers in diamond <b>2017</b> ,		8
146	Measuring molecular parity nonconservation using nuclear-magnetic-resonance spectroscopy. <i>Physical Review A</i> , <b>2017</b> , 96,	2.6	8
145	Dependence of atomic parity-violation effects on neutron skins and new physics. <i>Physical Review C</i> , <b>2019</b> , 100,	2.7	8
144	Four-wave mixing in a ring cavity. <i>Optical Engineering</i> , <b>2014</b> , 53, 102709	1.1	8
143	Electric-field-induced change of the alkali-metal vapor density in paraffin-coated cells. <i>Physical Review A</i> , <b>2009</b> , 79,	2.6	8
142	Nonlinear magneto-optical rotation in optically thick media. <i>Journal of Modern Optics</i> , <b>2002</b> , 49, 2543-2553		8
141	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> , <b>2001</b> , 18, 639	1.7	8
140	Resonant detection and production of axions with atoms. <i>International Journal of Modern Physics A</i> , <b>2018</b> , 33, 1844030	1.2	8
139	Sawtooth-wave adiabatic-passage slowing of dysprosium. <i>Physical Review A</i> , <b>2019</b> , 99,	2.6	7
138	Efficient polarization of high-angular-momentum systems. <i>Physical Review A</i> , <b>2016</b> , 94,	2.6	7
137	Nonlinear magneto-optical rotation in rubidium vapor excited with blue light. <i>Physical Review A</i> , <b>2015</b> , 92,	2.6	7
136	Collisional perturbation of radio-frequency E1 transitions in an atomic beam of dysprosium. <i>Physical Review A</i> , <b>2005</b> , 72,	2.6	7

135	Obtaining frequency markers of variable separation with a spherical mirror Fabry-Perot interferometer. <i>Review of Scientific Instruments</i> , <b>2000</b> , 71, 2984-2987	1.7	7
134	Laser spectroscopy and lifetime measurements of Dy I states. <i>Optics Letters</i> , <b>1991</b> , 16, 1514-6	3	7
133	Polarization-driven spin precession of mesospheric sodium atoms. <i>Optics Letters</i> , <b>2018</b> , 43, 5825-5828	3	7
132	Search for axion-like dark matter with spin-based amplifiers. <i>Nature Physics</i> ,	16.2	7
131	Battery Characterization via Eddy-Current Imaging with Nitrogen-Vacancy Centers in Diamond. <i>Applied Sciences (Switzerland)</i> , <b>2021</b> , 11, 3069	2.6	7
130	Continuous-wave cavity ring-down polarimetry. <i>Journal of Chemical Physics</i> , <b>2020</b> , 152, 164202	3.9	6
129	Hybrid optical pumping of K and Rb atoms in a paraffin coated vapor cell. <i>Optics Letters</i> , <b>2017</b> , 42, 4163-4166	6	
128	Laser guide star return flux simulations based on observed sodium density profiles <b>2010</b> ,		6
127	Measurement of dynamic Stark polarizabilities by analyzing spectral line shapes of forbidden transitions. <i>Physical Review A</i> , <b>2010</b> , 82,	2.6	6
126	Simulations of pulsed sodium laser guide stars: an overview <b>2012</b> ,		6
125	Symmetry-suppressed two-photon transitions induced by hyperfine interactions and magnetic fields. <i>Physical Review A</i> , <b>2009</b> , 80,	2.6	6
124	Rubidium 'whiskers' in a vapour cell. <i>Nature Physics</i> , <b>2007</b> , 3, 2-2	16.2	6
123	A laboratory search for variation of the fine-structure constant using atomic dysprosium. <i>European Physical Journal: Special Topics</i> , <b>2008</b> , 163, 71-88	2.3	6
122	Polarization-dependent photoionization cross sections and radiative lifetimes of atomic states in Ba. <i>Physical Review A</i> , <b>2006</b> , 74,	2.6	6
121	Unusually large polarizabilities and previously unidentified atomic states in Ba. <i>Physical Review A</i> , <b>2004</b> , 69,	2.6	6
120	Search for topological defect dark matter with a global network of optical magnetometers.. <i>Nature Physics</i> , <b>2021</b> , 17, 1396-1401	16.2	6
119	Comment on Sensitivity Coefficients to Variation of Fundamental Constants. <i>Annalen Der Physik</i> , <b>2019</b> , 531, 1800254	2.6	6
118	Photoluminescence at the ground-state level anticrossing of the nitrogen-vacancy center in diamond: A comprehensive study. <i>Physical Review B</i> , <b>2021</b> , 103,	3.3	6

117	Gravity Probe Spin: Prospects for measuring general-relativistic precession of intrinsic spin using a ferromagnetic gyroscope. <i>Physical Review D</i> , <b>2021</b> , 103,	4.9	6
116	Constant-adiabaticity ultralow magnetic field manipulations of parahydrogen-induced polarization: application to an AA'X spin system. <i>Physical Chemistry Chemical Physics</i> , <b>2021</b> , 23, 7125-7134	3.6	6
115	Interference-assisted resonant detection of axions. <i>Physics of the Dark Universe</i> , <b>2019</b> , 24, 100272	4.4	5
114	Spin ensemble-based AC magnetometry using concatenated dynamical decoupling at low temperatures. <i>Journal of Optics (United Kingdom)</i> , <b>2018</b> , 20, 024008	1.7	5
113	Lineshape-asymmetry elimination in weak atomic transitions driven by an intense standing wave field. <i>Optics Letters</i> , <b>2018</b> , 43, 2241-2243	3	5
112	Is light narrowing possible with dense-vapor paraffin coated cells for atomic magnetometers?. <i>AIP Advances</i> , <b>2017</b> , 7, 125224	1.5	5
111	Investigation of ac Stark shifts in excited states of dysprosium relevant to testing fundamental symmetries. <i>Physical Review A</i> , <b>2013</b> , 88,	2.6	5
110	Precision polarimetry with real-time mitigation of optical-window birefringence. <i>Review of Scientific Instruments</i> , <b>2008</b> , 79, 013108	1.7	5
109	Kerr effect in liquid helium at temperatures below the superfluid transition. <i>Physical Review Letters</i> , <b>2004</b> , 93, 153003	7.4	5
108	Stochastic fluctuations of bosonic dark matter.. <i>Nature Communications</i> , <b>2021</b> , 12, 7321	17.4	5
107	Robust optical readout and characterization of nuclear spin transitions in nitrogen-vacancy ensembles in diamond. <i>Physical Review Research</i> , <b>2020</b> , 2,	3.9	5
106	Imaging Topological Spin Structures Using Light-Polarization and Magnetic Microscopy. <i>Physical Review Applied</i> , <b>2021</b> , 15,	4.3	5
105	A Hypothetical Effect of the Maxwell-Proca Electromagnetic Stresses on Galaxy Rotation Curves. <i>Astrophysical Journal</i> , <b>2019</b> , 871, 218	4.7	4
104	Zero-field nuclear magnetic resonance spectroscopy of viscous liquids. <i>Journal of Magnetic Resonance</i> , <b>2015</b> , 250, 1-6	3	4
103	A network of superconducting gravimeters as a detector of matter with feeble nongravitational coupling. <i>European Physical Journal D</i> , <b>2020</b> , 74, 1	1.3	4
102	Polarized nuclear target based on parahydrogen induced polarization. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , <b>2012</b> , 694, 246-250	1.2	4
101	Spin-exchange-relaxation-free (SERF) magnetometers85-103		4
100	Optical magnetometry with nitrogen-vacancy centers in diamond142-166		4



99	Heading error in an alignment-based magnetometer <b>2011</b> ,		4
98	Fluid-flow characterization with nuclear spins without magnetic resonance. <i>Applied Physics Letters</i> , <b>2008</b> , 93, 092507	3.4	4
97	Wave-plate retarders based on overhead transparencies. <i>Applied Optics</i> , <b>2007</b> , 46, 5129-36	1.7	4
96	Relation between electromagnetically induced absorption resonances and nonlinear magneto-optics in $\mathbb{E}$ systems. <i>Physical Review A</i> , <b>2004</b> , 70,	2.6	4
95	Progress towards fundamental symmetry tests with nonlinear optical rotation. <i>AIP Conference Proceedings</i> , <b>2001</b> ,	0	4
94	Electrons in a shell. <i>American Journal of Physics</i> , <b>1998</b> , 66, 572-573	0.7	4
93	Expanding Nuclear Physics Horizons with the Gamma Factory. <i>Annalen Der Physik</i> , 2100284	2.6	4
92	Molecular parity nonconservation in nuclear spin couplings. <i>Physical Review Research</i> , <b>2020</b> , 2,	3.9	4
91	Frequency chirped continuous-wave sodium laser guide stars: modeling and optimization. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>2020</b> , 37, 1208	1.7	4
90	Tailorable dispersion in a four-wave mixing laser. <i>Optics Letters</i> , <b>2017</b> , 42, 2846-2849	3	4
89	Two-dimensional single- and multiple-quantum correlation spectroscopy in zero-field nuclear magnetic resonance. <i>Journal of Magnetic Resonance</i> , <b>2020</b> , 318, 106781	3	4
88	On-Sky Tests of a High-Power Pulsed Laser for Sodium Laser Guide Star Adaptive Optics. <i>Journal of Astronomical Instrumentation</i> , <b>2016</b> , 05, 1650001	0.8	4
87	Optically detected magnetic resonances of nitrogen-vacancy ensembles in C13-enriched diamond. <i>Physical Review B</i> , <b>2016</b> , 94,	3.3	4
86	Fast Apparent Oscillations of Fundamental Constants. <i>Annalen Der Physik</i> , <b>2020</b> , 532, 1900566	2.6	4
85	Lower than low: Perspectives on zero- to ultralow-field nuclear magnetic resonance. <i>Journal of Magnetic Resonance</i> , <b>2021</b> , 323, 106886	3	4
84	Quantitative measurements of non-covalent interactions with diamond based magnetic imaging. <i>Applied Physics Letters</i> , <b>2018</b> , 113, 053103	3.4	4
83	Optically Enhanced Electric Field Sensing Using Nitrogen-Vacancy Ensembles. <i>Physical Review Applied</i> , <b>2021</b> , 16,	4.3	4
82	Emergent hydrodynamics in a strongly interacting dipolar spin ensemble. <i>Nature</i> , <b>2021</b> , 597, 45-50	50.4	4

81	Constraining Exotic Interactions. <i>Annalen Der Physik</i> , <b>2019</b> , 531, 1800273	2.6	3
80	A network of magnetometers for multi-scale urban science and informatics. <i>Geoscientific Instrumentation, Methods and Data Systems</i> , <b>2019</b> , 8, 129-138	1.5	3
79	Catching, trapping and in-situ-identification of thorium ions inside Coulomb crystals of $40\text{Ca}^+$ ions. <i>Hyperfine Interactions</i> , <b>2019</b> , 240, 1	0.8	3
78	Development of a recoil ion source providing slow Th ions including $^{229\text{(m)}}\text{Th}$ in a broad charge state distribution. <i>Hyperfine Interactions</i> , <b>2020</b> , 241, 1	0.8	3
77	NV-Diamond Magnetometer Using Electron Irradiation. <i>Materials Research Society Symposia Proceedings</i> , <b>2013</b> , 1511, 1		3
76	Nuclear magnetic resonance gyroscopes 369-386		3
75	Sensitive optical atomic magnetometer based on nonlinear magneto-optical rotation <b>2010</b> ,		3
74	Atomic parity violation in $J=0 \rightarrow 0$ two-photon transitions. <i>Physical Review A</i> , <b>2011</b> , 84,	2.6	3
73	All-optical atomic magnetometers based on nonlinear magneto-optical rotation with amplitude modulated light <b>2007</b> , 6604, 35		3
72	Alignment-to-orientation conversion and nuclear quadrupole resonance. <i>Chemical Physics Letters</i> , <b>2003</b> , 378, 440-448	2.5	3
71	Applications of nonlinear magneto-optic effects with ultra-narrow widths <b>1999</b> ,		3
70	Studies towards a directional polychromatic sodium laser guide star <b>2018</b> ,		3
69	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> , <b>2020</b> , 37, 2430	1.7	3
68	Rapid Hyperpolarization and Purification of the Metabolite Fumarate in Aqueous Solution		3
67	Demonstration of diamond nuclear spin gyroscope. <i>Science Advances</i> , <b>2021</b> , 7, eabl3840	14.3	3
66	Searching for Earth/Solar axion halos. <i>Journal of High Energy Physics</i> , <b>2020</b> , 2020, 1	5.4	3
65	Detection of the Lowest-Lying Odd-Parity Atomic Levels in Actinium. <i>Physical Review Letters</i> , <b>2020</b> , 125, 073001	7.4	3
64	Resonance photoproduction of pionic atoms at the proposed Gamma Factory. <i>Physical Review C</i> , <b>2021</b> , 103,	2.7	3

63	Raman and nuclear magnetic resonance investigation of alkali metal vapor interaction with alkene-based anti-relaxation coating. <i>Journal of Chemical Physics</i> , <b>2016</b> , 144, 094707	3.9	3
62	Noncovalent force spectroscopy using wide-field optical and diamond-based magnetic imaging. <i>Journal of Applied Physics</i> , <b>2019</b> , 126, 194502	2.5	3
61	Singulett-Kontrast-Magnetresonanztomographie: Freisetzung der Hyperpolarisation durch den Metabolismus**. <i>Angewandte Chemie</i> , <b>2021</b> , 133, 6866-6873	3.6	3
60	Ferromagnetic gyroscopes for tests of fundamental physics. <i>Quantum Science and Technology</i> , <b>2021</b> , 6, 024006	5.5	3
59	Fiberized Diamond-Based Vector Magnetometers <sup>2</sup> ,		3
58	Extreme nuclear magnetic resonance: Zero field, single spins, dark matter. <i>Journal of Magnetic Resonance</i> , <b>2019</b> , 306, 66-68	3	2
57	Wu et al. Reply. <i>Physical Review Letters</i> , <b>2019</b> , 123, 169002	7.4	2
56	General principles and characteristics of optical magnetometers <sup>3-24</sup>		2
55	Optical magnetometry with modulated light <sup>104-124</sup>		2
54	Rubidium dimers in paraffin-coated cells. <i>New Journal of Physics</i> , <b>2010</b> , 12, 083054	2.9	2
53	Nonlinear and Integrated Magneto-Optics. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>2005</b> , 22, 2	1.7	2
52	Photoionization and photodissociation properties of Tl <sub>2</sub> observed in a hypersonic beam. <i>Chemical Physics Letters</i> , <b>1994</b> , 229, 35-39	2.5	2
51	Search for exotic spin-dependent interactions with a spin-based amplifier. <i>Science Advances</i> , <b>2021</b> , 7, eabi9535	14.3	2
50	Towards measuring nuclear-spin-dependent and isotopic-chain atomic parity violation in ytterbium <b>2007</b> , 177-183		2
49	Rapid Online Solid-State Battery Diagnostics with Optically Pumped Magnetometers. <i>Applied Sciences (Switzerland)</i> , <b>2020</b> , 10, 7864	2.6	2
48	Probing fast oscillating scalar dark matter with atoms and molecules. <i>Quantum Science and Technology</i> , <b>2021</b> , 6, 034001	5.5	2
47	Intensity-correlated spiking of infrared and ultraviolet emission from sodium vapors. <i>Optics Letters</i> , <b>2021</b> , 46, 2131-2134	3	2
46	Dark matter searches using accelerometer-based networks. <i>Quantum Science and Technology</i> , <b>2021</b> , 6, 034004	5.5	2

45	Magnetic sensing at zero field with a single nitrogen-vacancy center. <i>Quantum Science and Technology</i> , <b>2021</b> , 6, 034006	5.5	2
44	Quantum sensitivity limits of nuclear magnetic resonance experiments searching for new fundamental physics. <i>Quantum Science and Technology</i> , <b>2021</b> , 6, 034007	5.5	2
43	Comparison between observation and simulation of sodium LGS return flux with a 20W CW laser on Tenerife <b>2016</b> ,		2
42	Fundamentals of photoelectric readout of spin states in diamond. <i>Semiconductors and Semimetals</i> , <b>2021</b> , 105-147	0.6	2
41	Zero- to Ultralow-Field NMR Spectroscopy of Small Biomolecules. <i>Analytical Chemistry</i> , <b>2021</b> , 93, 3226-3232	3.3	2
40	Coherent axion-photon transformations in the forward scattering on atoms. <i>Physical Review D</i> , <b>2018</b> , 98,	4.9	2
39	Infrasonic, Acoustic and Seismic Waves Produced by the Axion Quark Nuggets. <i>Symmetry</i> , <b>2022</b> , 14, 459	2.7	2
38	Millicharged Dark Matter Detection with Ion Traps. <i>PRX Quantum</i> , <b>2022</b> , 3,	6.1	2
37	System for control of polarization state of light and generation of light with continuously rotating linear polarization. <i>Review of Scientific Instruments</i> , <b>2019</b> , 90, 013110	1.7	1
36	New Atomic Methods for Dark Matter Detection. <i>Journal of Physics: Conference Series</i> , <b>2015</b> , 635, 022033	3.3	1
35	Atomic and molecular transitions induced by axions via oscillating nuclear moments. <i>Physical Review D</i> , <b>2020</b> , 101,	4.9	1
34	Sodium vapor cell laser guide star experiments for continuous wave model validation <b>2016</b> ,		1
33	Improving the coherence properties of solid-state spin ensembles via optimized dynamical decoupling <b>2016</b> ,		1
32	Efficient polarization of high-angular-momentum systems <b>2016</b> ,		1
31	Evidence for degenerate mirrorless lasing in alkali metal vapor: forward beam magneto-optical experiment. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>2019</b> , 52, 195003	1.3	1
30	Isotopic variation of parity violation in atomic ytterbium: Description of the measurement method and analysis of systematic effects. <i>Physical Review A</i> , <b>2019</b> , 100,	2.6	1
29	Titelbild: Ultra-Low-Field NMR Relaxation and Diffusion Measurements Using an Optical Magnetometer (Angew. Chem. 37/2014). <i>Angewandte Chemie</i> , <b>2014</b> , 126, 9831-9831	3.6	1
28	Tunable lossless slow and fast light in a four-level N-system <b>2013</b> ,		1

27	Detection of nuclear magnetic resonance with atomic magnetometers 265-284		1
26	Results of table-top fundamental physics experiments at Berkeley <b>2010</b> ,		1
25	Pressure broadening and shift of the D1 line of Ag by He, Ar, and N2. <i>Physical Review A</i> , <b>2012</b> , 86,	2.6	1
24	Response of atomic spin-based sensors to magnetic and nonmagnetic perturbations.. <i>Scientific Reports</i> , <b>2022</b> , 12, 324	4.9	1
23	Investigation of antirelaxation wall coatings beyond melting temperatures <b>2017</b> ,		1
22	Polarization-driven spin precession of mesospheric sodium atoms: publisher's note. <i>Optics Letters</i> , <b>2019</b> , 44, 138	3	1
21	Correlation of high-field and zero- to ultralow-field NMR properties using 2D spectroscopy. <i>Journal of Chemical Physics</i> , <b>2021</b> , 154, 144201	3.9	1
20	Cross-relaxation studies with optically detected magnetic resonances in nitrogen-vacancy centers in diamond in external magnetic field. <i>Physical Review B</i> , <b>2021</b> , 103,	3.3	1
19	Towards large-scale steady-state enhanced nuclear magnetization with in situ detection. <i>Magnetic Resonance in Chemistry</i> , <b>2021</b> , 59, 1208-1215	2.1	1
18	Determination of local defect density in diamond by double electron-electron resonance. <i>Physical Review B</i> , <b>2021</b> , 104,	3.3	1
17	Precision Determination of Isotope Shifts in Ytterbium and Implications for New Physics.. <i>Physical Review Letters</i> , <b>2022</b> , 128, 073001	7.4	1
16	Physics Opportunities with the Gamma Factory. <i>Annalen Der Physik</i> , <b>2022</b> , 534, 2200004	2.6	1
15	Deep neural networks to recover unknown physical parameters from oscillating time series.. <i>PLoS ONE</i> , <b>2022</b> , 17, e0268439	3.7	1
14	Low-energy Tests of Fundamental Physics. <i>European Review</i> , <b>2018</b> , 26, 82-89	0.3	0
13	Vibrational and electronic ultrafast relaxation of the nitrogen-vacancy centers in diamond. <i>EPJ Web of Conferences</i> , <b>2013</b> , 41, 04009	0.3	0
12	Stand-Off Magnetometry with Directional Emission from Sodium Vapors. <i>Physical Review Letters</i> , <b>2021</b> , 127, 173605	7.4	0
11	Photochemically Induced Dynamic Nuclear Polarization of Heteronuclear Singlet Order. <i>Journal of Physical Chemistry Letters</i> , <b>2021</b> , 12, 4686-4691	6.4	0
10	Local Lorentz Invariance Tests for Photons and Hadrons at the Gamma Factory. <i>Annalen Der Physik</i> , <b>21001461</b>	1.61	0

- 9 Quantum technologies and the elephants. *Quantum Science and Technology*, **2021**, 6, 040401 5.5 ○
- 8 Surpassing the Energy Resolution Limit with Ferromagnetic Torque Sensors. *Physical Review Letters*, **2021**, 127, 070801 7.4 ○
- 7 Chemical Reaction Monitoring using Zero-Field Nuclear Magnetic Resonance Enables Study of Heterogeneous Samples in Metal Containers. *Angewandte Chemie*, **2020**, 132, 17174-17180 3.6
- 6 Ultra-Low-Field NMR Relaxation and Diffusion Measurements Using an Optical Magnetometer. *Angewandte Chemie*, **2014**, 126, 9924-9928 3.6
- 5 Remote detection magnetometry 251-264
- 4 An overview of some experimental and theoretical aspects of fundamental symmetry violations in atoms **2010**, 75, 1041-1056
- 3 Parity-Violation Studies with Partially Stripped Ions. *Annalen Der Physik*, 2100561 2.6
- 2 Rapid parameter estimation of discrete decaying signals using autoencoder networks. *Machine Learning: Science and Technology*, **2021**, 2, 045024 5.1
- 1 Do cities have a unique magnetic pulse?. *Journal of Applied Physics*, **2022**, 131, 204902 2.5