

# Mariusz Puchalski

## List of Publications by Year in descending order

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Version: 2024-02-01

68  
papers

1,815  
citations

218677

26  
h-index

289244

40  
g-index

70  
all docs

70  
docs citations

70  
times ranked

859  
citing authors

#	ARTICLE	IF	CITATIONS
1	Relativistic, QED, and finite nuclear mass corrections for low-lying states of Li and $Be$ . Physical Review A, 2008, 78, .	2.5	102
2	Ground-state wave function and energy of the lithium atom. Physical Review A, 2006, 73, .	2.5	97
3	Isotope Shift of the $3s-2s$ Transition in Lithium and the Nuclear Polarizability. Physical Review Letters, 2006, 97, 133001.	7.8	79
4	Relativistic, QED, and nuclear mass effects in the magnetic shielding of H3e. Journal of Chemical Physics, 2009, 130, 244102.	3.0	67
5	Theoretical determination of the polarizability dispersion and the refractive index of helium. Physical Review A, 2016, 93, .	2.5	62
6	Nonadiabatic QED Correction to the Dissociation Energy of the Hydrogen Molecule. Physical Review Letters, 2019, 122, 103003.	7.8	59
7	Isotope-shift measurements of stable and short-lived lithium isotopes for nuclear-charge-radii determination. Physical Review A, 2011, 83, .	2.5	58
8	Complete $6s$ to the Ground State of $H$ . Physical Review Letters, 2016, 117, 263002.	7.8	57
9	Accurate deuterium spectroscopy for fundamental studies. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 213, 41-51.	2.3	54
10	Rovibrational energy levels of the hydrogen molecule through nonadiabatic perturbation theory. Physical Review A, 2019, 100, .	2.5	51
11	Relativistic corrections for the ground electronic state of molecular hydrogen. Physical Review A, 2017, 95, .	2.5	50
12	Testing quantum electrodynamics in the lowest singlet states of the beryllium atom. Physical Review A, 2013, 87, .	2.5	45
13	Nonadiabatic relativistic correction in $H_2$ , $H_2^+$ , and HD. Physical Review A, 2018, 98, .	2.5	43
14	The full infrared spectrum of molecular hydrogen. Astronomy and Astrophysics, 2019, 630, A58.	5.1	43
15	Ground state of Li and $Be$ explicitly correlated functions. Physical Review A, 2009, 80, .	2.5	41
16	Ionization potential for excited $S$ states of the lithium atom. Physical Review A, 2010, 82, .	2.5	41
17	$He_4$ and $He_3$ from an accurate relativistic interaction potential. Physical Review A, 2020, 102, .	2.5	41
18	Recursion relations for the generic Hylleraas three-electron integral. Physical Review A, 2004, 70, .	2.5	39

#	ARTICLE	IF	CITATIONS
19	Fine and hyperfine splitting of the $2P$ state in Li and $Be$ . Physical Review A, 2008, 78, .	2.5	39
20	Frequency-Dependent Polarizability of Helium Including Relativistic Effects with Nuclear Recoil Terms. Physical Review Letters, 2015, 114, 173004.	7.8	34
21	QED calculation of the dipole polarizability of helium atom. Physical Review A, 2020, 101, .	2.5	34
22	Nonadiabatic Relativistic Correction to the Dissociation Energy of $H_2$ . Physical Review Letters, 2007, 99, 203401.	7.8	34
23	Positronium-Ion Decay. Physical Review Letters, 2007, 99, 203401.	7.8	29
24	Ground State Hyperfine Splitting in $Li$ and the Nuclear Structure. Physical Review Letters, 2013, 111, 243001.	7.8	27
25	Isotope shift in a beryllium atom. Physical Review A, 2014, 89, .	2.5	27
26	Explicitly correlated wave function for a boron atom. Physical Review A, 2015, 92, .	2.5	27
27	Dipole Excitation of the Positronium Molecule $Ps_2$ . Physical Review Letters, 2008, 101, 183001.	7.8	25
28	Dissociation energy of molecular hydrogen isotopologues. Physical Review A, 2019, 100, .	2.5	25
29	Quantum Electrodynamics Corrections to the $2P$ Fine Splitting in Li. Physical Review Letters, 2014, 113, 073004.	7.8	24
30	Electron-correlation effects in the $g$ factor of light Li-like ions. Physical Review A, 2017, 95, .	2.5	24
31	Nuclear Charge Radii of $B$ . Hyperfine Structure of the First Rotational Level in $Li$ . Physical Review Letters, 2008, 101, 183001.	7.8	24
32	Hyperfine Structure of the First Rotational Level in $Li$ . Physical Review Letters, 2008, 101, 183001.	7.8	24
33	form="prefix">ln</mml:mo><mml:mi> $\hat{I}_\pm$ </mml:mi></mml:mrow></mml:math> corrections to the fine splitting in Li and $Be$ . Physical Review A, 2015, 92, .	2.5	21
34	Extended Hylleraas three-electron integral. Physical Review A, 2005, 71, .	2.5	20
35	$D_1$ and $D_2$ lines in $6Li$ and $7Li$ including QED effects. Physical Review A, 2013, 87, .	2.5	20
36	Precision Test of Many-Body QED in the $2P$ Fine Structure Doublet Using Short-Lived Isotopes. Physical Review Letters, 2015, 115, 033002.	7.8	17

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37	Lithium electric dipole polarizability. <i>Physical Review A</i> , 2011, 84, .	2.5	16
38	Blackbody-radiation correction to the polarizability of helium. <i>Physical Review A</i> , 2011, 83, .	2.5	16
39	Deuteron and triton magnetic moments from NMR spectra of the hydrogen molecule. <i>Physical Review A</i> , 2015, 92, .	2.5	16
40	Nuclear structure effects in the isotope shift with halo nuclei. <i>Hyperfine Interactions</i> , 2010, 196, 35-42.	0.5	15
41	Hyperfine structure in the HD molecule. <i>Physical Review A</i> , 2020, 102, .	2.5	15
42	Applications of four-body exponentially correlated functions. <i>Physical Review A</i> , 2010, 81, .	2.5	14
43	Thermal correction to the molar polarizability of a Boltzmann gas. <i>Physical Review A</i> , 2011, 84, .	2.5	14
44	Ultracold mixtures of metastable He and Rb: Scattering lengths from <i>ab initio</i> calculations and thermalization measurements. <i>Physical Review A</i> , 2014, 90, .	2.5	14
45	Binding energies of the lithium isoelectronic sequence approaching the critical charge. <i>Physical Review A</i> , 2012, 86, .	2.5	13
46	Parallel application benchmarks and performance evaluation of the Intel Xeon 7500 family processors. <i>Procedia Computer Science</i> , 2011, 4, 372-381.	2.0	12
47	Extended Gaussian quadratures for functions with an end-point singularity of logarithmic type. <i>Computer Physics Communications</i> , 2014, 185, 2913-2919.	7.5	12
48	QED Effect on the Nuclear Magnetic Shielding of $^3\text{He}$ . <i>Physical Review Letters</i> , 2021, 127, 263001.	7.8	12
49	Ground-state hyperfine splitting in the Be ion. <i>Physical Review A</i> , 2014, 89, .	2.5	11
50	One-loop binding corrections to the electron $g$ factor. <i>Physical Review A</i> , 2017, 96, .	2.5	11
51	Nuclear Spin-Spin Coupling in HD, HT, and DT. <i>Physical Review Letters</i> , 2018, 120, 083001.	7.8	11
52	Quantum-electrodynamic corrections to the $1s3d$ states of the helium atom. <i>Physical Review A</i> , 2019, 99, .	2.5	11
53	QED calculation of the fine structure in Li-like ions. <i>Physical Review A</i> , 2020, 102, .	2.5	11
54	Quantum defects at the critical charge. <i>Journal of Chemical Physics</i> , 2013, 138, 224305.	3.0	10

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55	Precision tests of nonadiabatic perturbation theory with measurements on the DT molecule. Physical Review Research, 2019, 1, .	3.6	10
56	Electromagnetic moments of the bound system of charged particles. Physical Review A, 2014, 90, .	2.5	8
57	Singular Hylleraas three-electron integrals. Physical Review A, 2008, 77, .	2.5	7
58	Accurate determination of Be magnetic moment. Optics Communications, 2010, 283, 641-643.	2.1	7
59	QED calculation of ionization energies of 1snd states in helium. Physical Review A, 2020, 102, .	2.5	7
60	Self-energy screening effects in the g factor of Li-like ions. Physical Review A, 2020, 102, .	2.5	7
61	Hyperfine structure of the $2^3P$ state in $^9\text{Be}$ and the nuclear quadrupole moment	3.6	7
62	Refractive index and generalized polarizability. Physical Review A, 2019, 99, .	2.5	5
63	Fine and hyperfine splitting of the low-lying states of $^9\text{Be}$ .	2.5	5
64	Nuclear magnetic shielding in HD and HT. Physical Review A, 2022, 105, .	2.5	3
65	QED theory of the nuclear magnetic shielding in H and $^3\text{He}$ .	2.5	2
66	Quantum electrodynamic corrections to the g factor of helium P states. Physical Review A, 2012, 86, .	2.5	1
67	EFFECT OF NUCLEAR POLARIZABILITY IN LI11. , 2007, , .		0
68	Nuclear structure effects in the isotope shift with halo nuclei. , 2010, , 35-42.		0