

# John M Doyle

## List of Publications by Year in descending order

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Version: 2024-02-01

54  
papers

3,636  
citations

126858

33  
h-index

168321

53  
g-index

56  
all docs

56  
docs citations

56  
times ranked

1975  
citing authors

#	ARTICLE	IF	CITATIONS
1	Magneto-optical trapping and sub-Doppler cooling of a polyatomic molecule. Nature, 2022, 606, 70-74.	13.7	72
2	Observation and laser spectroscopy of ytterbium monomethoxide, $\text{YbOCH}_3$ . Physical Review A, 2021, 103, .	1.0	26
3	Establishing a nearly closed cycling transition in a polyatomic molecule. Physical Review A, 2021, 103, .	1.0	28
4	Enhanced sensitivity to ultralight bosonic dark matter in the spectra of the linear radical SrOH. Physical Review A, 2021, 103, .	1.0	26
5	Observation of microwave shielding of ultracold molecules. Science, 2021, 373, 779-782.	6.0	69
6	Accurate prediction and measurement of vibronic branching ratios for laser cooling linear polyatomic molecules. Journal of Chemical Physics, 2021, 155, 091101.	1.2	30
7	Device for Suppression of Aerosol Transfer in Close Proximity Settings. Covid, 2021, 1, 394-402.	0.7	0
8	Rotational Coherence Times of Polar Molecules in Optical Tweezers. Physical Review Letters, 2021, 127, 123202.	2.9	41
9	Validation of N95 Filtering Facepiece Respirator Decontamination Methods Available at a Large University Hospital. Open Forum Infectious Diseases, 2021, 8, ofaa610.	0.4	26
10	Fast and high-yield loading of a $\text{D}_2$ magneto-optical trap of potassium from a cryogenic buffer-gas beam. Physical Review A, 2021, 104, .	4.0	46
11	Zeeman-Sisyphus Deceleration of Molecular Beams. Physical Review Letters, 2021, 127, 263002.	2.9	14
12	Assessment and mitigation of aerosol airborne SARS-CoV-2 transmission in laboratory and office environments. Journal of Occupational and Environmental Hygiene, 2020, 17, 447-456.	0.4	34
13	Observation of Collisions between Two Ultracold Ground-State CaF Molecules. Physical Review Letters, 2020, 125, 043401.	2.9	65
14	Molecular Asymmetry and Optical Cycling: Laser Cooling Asymmetric Top Molecules. Physical Review X, 2020, 10, .	2.8	43
15	Direct laser cooling of a symmetric top molecule. Science, 2020, 369, 1366-1369.	6.0	114
16	1D Magneto-Optical Trap of Polyatomic Molecules. Physical Review Letters, 2020, 124, 133201.	2.9	69
17	A scalable method of applying heat and humidity for decontamination of N95 respirators during the COVID-19 crisis. PLoS ONE, 2020, 15, e0234851.	1.1	52
18	Laser-cooled polyatomic molecules for improved electron electric dipole moment searches. New Journal of Physics, 2020, 22, 022003.	1.2	104

#	ARTICLE	IF	CITATIONS
19	A scalable quantum computing platform using symmetric-top molecules. <i>New Journal of Physics</i> , 2019, 21, 093049.	1.2	62
20	An optical tweezer array of ultracold molecules. <i>Science</i> , 2019, 365, 1156-1158.	6.0	200
21	Determination of CaOH and CaOCH <sub>3</sub> vibrational branching ratios for direct laser cooling and trapping. <i>New Journal of Physics</i> , 2019, 21, 052002.	1.2	40
22	3D Magneto-Optical Trap of Yttrium Monoxide. <i>Physical Review Letters</i> , 2018, 121, 213201.	2.9	137
23	Laser cooling of optically trapped molecules. <i>Nature Physics</i> , 2018, 14, 890-893.	6.5	172
24	$\hat{\Gamma}$ -Enhanced Imaging of Molecules in an Optical Trap. <i>Physical Review Letters</i> , 2018, 121, 083201.	2.9	93
25	Enantiomer-Specific State Transfer of Chiral Molecules. <i>Physical Review Letters</i> , 2017, 118, 123002.	2.9	106
26	Radio Frequency Magneto-Optical Trapping of CaF with High Density. <i>Physical Review Letters</i> , 2017, 119, 103201.	2.9	172
27	Probing the frontiers of particle physics with tabletop-scale experiments. <i>Science</i> , 2017, 357, 990-994.	6.0	110
28	Sisyphus Laser Cooling of a Polyatomic Molecule. <i>Physical Review Letters</i> , 2017, 118, 173201.	2.9	193
29	Direct Time-Resolved Observation of Conformational Relaxation in Gas-Phase Cold Collisions. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 4957-4961.	7.2	9
30	Sensitivity and resolution in frequency comb spectroscopy of buffer gas cooled polyatomic molecules. <i>Applied Physics B: Lasers and Optics</i> , 2016, 122, 1.	1.1	16
31	Continuous probing of cold complex molecules with infrared frequency comb spectroscopy. <i>Nature</i> , 2016, 533, 517-520.	13.7	92
32	Physics and Chemistry with Cold Molecules. <i>ChemPhysChem</i> , 2016, 17, 3581-3582.	1.0	5
33	Proposal for Laser Cooling of Complex Polyatomic Molecules. <i>ChemPhysChem</i> , 2016, 17, 3641-3648.	1.0	82
34	Rotational State Microwave Mixing for Laser Cooling of Complex Diatomic Molecules. <i>Physical Review Letters</i> , 2015, 114, 223003.	2.9	77
35	Rotational spectroscopy and three-wave mixing of 4-carvomenthenol: A technical guide to measuring chirality in the microwave regime. <i>Journal of Chemical Physics</i> , 2015, 142, 214201.	1.2	60
36	Properties of the ground $\frac{F_2}{P^3}$ and the excited $\frac{P^0}{F^2}$	1.0	2

#	ARTICLE	IF	CITATIONS
37	Magnetic Trapping of Molecules via Optical Loading and Magnetic Slowing. Physical Review Letters, 2014, 112, 113006.	2.9	51
38	Vibrational quenching of the electronic ground state in ThO in cold collisions with He3. Physical Review A, 2014, 90, .	1.0	4
39	Manipulation of molecules with electromagnetic fields. Molecular Physics, 2013, 111, 1648-1682.	0.8	235
40	Zeeman relaxation induced by spin-orbit coupling in cold antimony-helium collisions. Physical Review A, 2013, 88, .	1.0	2
41	Spin-dependent collision of ultracold metastable atoms. Physical Review A, 2012, 86, .	1.0	26
42	The Buffer Gas Beam: An Intense, Cold, and Slow Source for Atoms and Molecules. Chemical Reviews, 2012, 112, 4803-4827.	23.0	274
43	Zeeman relaxation of cold atomic iron and nickel in collisions with $^3\text{He}$ . Physical Review A, 2010, 81, .	1.0	5
44	Large spin relaxation rates in trapped submerged-shell atoms. Physical Review A, 2010, 81, .	1.0	31
45	Realization of coherent optically dense media via buffer-gas cooling. Physical Review A, 2009, 79, . Magnetic trapping of atomic nitrogen $T_j \text{ ETQq0 0 0 rgBT /Overlock 10 Tf 50 397 Td (math}$	1.0	20
46	cotrapping of NH $T_j \text{ ETQq0 0 0 rgBT /Overlock 10 Tf 50 397 Td (math}$		