

# Stephen L Coy

## List of Publications by Year in descending order

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48  
papers

1,519  
citations

304368

22  
h-index

301761

39  
g-index

49  
all docs

49  
docs citations

49  
times ranked

969  
citing authors

#	ARTICLE	IF	CITATIONS
1	Nonlinear rotational spectroscopy reveals many-body interactions in water molecules. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	9
2	Long-range model of vibrational autoionization in core-nonpenetrating Rydberg states of NO. Journal of Chemical Physics, 2021, 155, 244303.	1.2	1
3	Quantitation of Urinary Acylcarnitines by DMS-MS/MS Uncovers the Effects of Total Body Irradiation in Cancer Patients. Journal of the American Society for Mass Spectrometry, 2020, 31, 498-507.	1.2	3
4	Quantitation of Cyclosporin A in Cell Culture Media by Differential Mobility Mass Spectrometry (DMS-MS/MS). Methods in Molecular Biology, 2020, 2084, 145-157.	0.4	1
5	The Use of DMS-MS for the Quantitative Analysis of Acylcarnitines. Methods in Molecular Biology, 2020, 2084, 95-101.	0.4	1
6	Analysis of vibrational autoionization of CaF Rydberg states. Journal of Chemical Physics, 2019, 150, 154305.	1.2	4
7	Differential mobility spectrometry (DMS) reveals the elevation of urinary acetylcarnitine in non-human primates (NHPs) exposed to radiation. Journal of Mass Spectrometry, 2018, 53, 548-559.	0.7	12
8	Differential Mobility Spectrometry-Mass Spectrometry (DMS-MS) in Radiation Biodosimetry: Rapid and High-Throughput Quantitation of Multiple Radiation Biomarkers in Nonhuman Primate Urine. Journal of the American Society for Mass Spectrometry, 2018, 29, 1650-1664.	1.2	23
9	Direct single-shot observation of millimeter-wave superradiance in Rydberg-Rydberg transitions. Physical Review A, 2017, 95, .	1.0	19
10	Electric potential invariants and ions-in-molecules effective potentials for molecular Rydberg states. Journal of Chemical Physics, 2016, 145, 234301.	1.2	3
11	Rapid and High-Throughput Detection and Quantitation of Radiation Biomarkers in Human and Nonhuman Primates by Differential Mobility Spectrometry-Mass Spectrometry. Journal of the American Society for Mass Spectrometry, 2016, 27, 1626-1636.	1.2	18
12	Direct detection of Rydberg-Rydberg millimeter-wave transitions in a buffer gas cooled molecular beam. Chemical Physics Letters, 2015, 640, 124-136.	1.2	20
13	Understanding Gas Phase Modifier Interactions in Rapid Analysis by Differential Mobility-Tandem Mass Spectrometry. Journal of the American Society for Mass Spectrometry, 2014, 25, 1098-1113.	1.2	35
14	Extending the Dynamic Range of the Ion Trap by Differential Mobility Filtration. Journal of the American Society for Mass Spectrometry, 2013, 24, 1428-1436.	1.2	19
15	Differential mobility spectrometry with nanospray ion source as a compact detector for small organics and inorganics. International Journal for Ion Mobility Spectrometry, 2013, 16, 217-227.	1.4	13
16	Chirped-pulse millimeter-wave spectroscopy: Spectrum, dynamics, and manipulation of Rydberg-Rydberg transitions. Journal of Chemical Physics, 2013, 138, 014301.	1.2	20
17	A differential mobility spectrometry/mass spectrometry platform for the rapid detection and quantitation of DNA adduct dC8-ABP. Rapid Communications in Mass Spectrometry, 2013, 27, 1473-1480.	0.7	15
18	Development of rapid methodologies for the isolation and quantitation of drug metabolites by differential mobility spectrometry-mass spectrometry. International Journal for Ion Mobility Spectrometry, 2012, 15, 151-156.	1.4	21

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19	Rapid Separation and Characterization of Cocaine and Cocaine Cutting Agents by Differential Mobility Spectrometry. <i>Journal of Forensic Sciences</i> , 2012, 57, 750-756.	0.9	31
20	Chirped-Pulse Millimeter-Wave Spectroscopy of Rydberg-Rydberg Transitions. <i>Physical Review Letters</i> , 2011, 107, 143001.	2.9	22
21	A quantum defect model for the <i>s</i> , <i>p</i> , <i>d</i> , and <i>f</i> Rydberg series of CaF. <i>Journal of Chemical Physics</i> , 2011, 134, 114313.	1.2	27
22	Radiation metabolomics and its potential in biodosimetry. <i>International Journal of Radiation Biology</i> , 2011, 87, 802-823.	1.0	88
23	Control of Chemical Effects in the Separation Process of a Differential Mobility Mass Spectrometer System. <i>European Journal of Mass Spectrometry</i> , 2010, 16, 57-71.	0.5	73
24	Planar differential mobility spectrometer as a pre-filter for atmospheric pressure ionization mass spectrometry. <i>International Journal of Mass Spectrometry</i> , 2010, 298, 45-54.	0.7	147
25	Detection of radiation-exposure biomarkers by differential mobility prefiltered mass spectrometry (DMS-MS). <i>International Journal of Mass Spectrometry</i> , 2010, 291, 108-117.	0.7	52
26	Chemical Effects in the Separation Process of a Differential Mobility/Mass Spectrometer System. <i>Analytical Chemistry</i> , 2010, 82, 1867-1880.	3.2	153
27	Selection and generation of waveforms for differential mobility spectrometry. <i>Review of Scientific Instruments</i> , 2010, 81, 024101.	0.6	58
28	The Stark effect in Rydberg states of a highly polar diatomic molecule: CaF. <i>Journal of Chemical Physics</i> , 2009, 131, 064301.	1.2	7
29	Temperature effects in differential mobility spectrometry. <i>International Journal of Mass Spectrometry</i> , 2009, 279, 119-125.	0.7	58
30	Separation of long-range and short-range interactions in Rydberg states of diatomic molecules. <i>Journal of Chemical Physics</i> , 2008, 128, 194301.	1.2	16
31	Resonance between electronic and rotational motions in Rydberg states of CaF. <i>Molecular Physics</i> , 2007, 105, 1661-1673.	0.8	11
32	Fragmentation pathways and mechanisms of aromatic compounds in atmospheric pressure studied by GC-DMS and DMS-MS. <i>International Journal of Mass Spectrometry</i> , 2007, 263, 137-147.	0.7	28
33	Pressure Effects in Differential Mobility Spectrometry. <i>Analytical Chemistry</i> , 2006, 78, 7697-7706.	3.2	95
34	Broad shape resonance effects in CaF Rydberg states. <i>Journal of Chemical Physics</i> , 2006, 124, 194302.	1.2	4
35	Properties of nearly one-electron molecules. II. Application to the Rydberg spectrum of CaF. <i>Journal of Chemical Physics</i> , 2005, 123, 084319.	1.2	12
36	Properties of nearly one-electron molecules. I. An iterative Green function approach to calculating the reaction matrix. <i>Journal of Chemical Physics</i> , 2005, 123, 084318.	1.2	10

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37	Numerical Pattern Recognition Analysis of CO Atmospheric Simulation Experiments. Journal of Physical Chemistry A, 2000, 104, 249-257.	1.1	0
38	Numerical pattern recognition analysis of acetylene dispersed fluorescence spectra. Journal of Chemical Physics, 1998, 108, 7100-7113.	1.2	59
39	Identifying patterns in multicomponent signals by extended cross correlation. Journal of Chemical Physics, 1997, 107, 8357-8369.	1.2	18
40	Extended cross correlation: A technique for spectroscopic pattern recognition. Journal of Chemical Physics, 1997, 107, 8349-8356.	1.2	31
41	How robust are molecular properties? A stability criterion for eigenstates. Journal of Chemical Physics, 1995, 102, 337-345.	1.2	2
42	Microwave detected, microwave-optical double resonance of NH <sub>3</sub> , NH <sub>2</sub> D, NHD <sub>2</sub> , and ND <sub>3</sub> . II. Predissociation dynamics of the $\tilde{A}$ state. Journal of Chemical Physics, 1995, 102, 4783-4792.	1.2	41
43	Microwave detected, microwave-optical double resonance of NH <sub>3</sub> , NH <sub>2</sub> D, NHD <sub>2</sub> , and ND <sub>3</sub> . I. Structure and force field of the $\tilde{A}$ state. Journal of Chemical Physics, 1995, 102, 4772-4782.	1.2	38
44	The normal to local mode transition in AB <sub>2</sub> triatomic molecules: The susceptibility of eigenstates to symmetry breaking perturbations. Journal of Chemical Physics, 1994, 101, 869-875.	1.2	22
45	Pure Sequence Vibrational Spectra of Small Polyatomic Molecules. Progress of Theoretical Physics Supplement, 1994, 116, 143-166.	0.2	22
46	State-to-state rotational energy transfer measurements in the $v_2=1$ state of ammonia by infrared-infrared double resonance. Journal of Chemical Physics, 1992, 96, 8236-8250.	1.2	31
47	Modeling the rotational and vibrational structure of the i.r. optical spectrum of NH <sub>3</sub> . Spectrochimica Acta Part A: Molecular Spectroscopy, 1989, 45, 47-56.	0.1	68
48	Rotational structure of ammonia N-H stretch overtones: Five and six quanta bands. Journal of Chemical Physics, 1986, 84, 5239-5249.	1.2	58