

# Mattanjah S De Vries

## List of Publications by Year in descending order

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76  
papers

4,021  
citations

117625

34  
h-index

114465

63  
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78  
all docs

78  
docs citations

78  
times ranked

2579  
citing authors

#	ARTICLE	IF	CITATIONS
1	Electron paramagnetic resonance studies of lanthanum-containing C82. <i>Nature</i> , 1992, 355, 239-240.	27.8	439
2	Gas-Phase Spectroscopy of Biomolecular Building Blocks. <i>Annual Review of Physical Chemistry</i> , 2007, 58, 585-612.	10.8	352
3	Pairing of isolated nucleic-acid bases in the absence of the DNA backbone. <i>Nature</i> , 2000, 408, 949-951.	27.8	256
4	Photochemical selectivity in guanine-cytosine base-pair structures. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 20-23.	7.1	249
5	Excited state dynamics of DNA bases. <i>International Reviews in Physical Chemistry</i> , 2013, 32, 308-342.	2.3	185
6	On the Photochemistry of Purine Nucleobases. <i>Journal of Physical Chemistry A</i> , 2001, 105, 5106-5110.	2.5	171
7	Structure and IR Spectrum of Phenylalanyl-Glycyl-Glycine Tripeptide in the Gas-Phase: IR/LIV Experiments, Ab Initio Quantum Chemical Calculations, and Molecular Dynamic Simulations. <i>Chemistry - A European Journal</i> , 2005, 11, 6803-6817.	3.3	169
8	REMPI Spectroscopy of Jet-Cooled Guanine. <i>Journal of the American Chemical Society</i> , 1999, 121, 4896-4897.	13.7	128
9	Life in the light: nucleic acid photoproperties as a legacy of chemical evolution. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 24228-24238.	2.8	108
10	Resonance-Enhanced Multiphoton Ionization Spectroscopy of Dipeptides. <i>Journal of Physical Chemistry A</i> , 2000, 104, 6351-6355.	2.5	101
11	Vibrational Spectroscopy of the G $\hat{A}$ - $\hat{A}$ -C Base Pair: Experiment, Harmonic and Anharmonic Calculations, and the Nature of the Anharmonic Couplings. <i>Journal of Physical Chemistry A</i> , 2005, 109, 6974-6984.	2.5	98
12	Pairing of Isolated Nucleobases: Double Resonance Laser Spectroscopy of Adenine-Thymine. <i>ChemPhysChem</i> , 2003, 4, 838-842.	2.1	94
13	Pairing of the nucleobase guanine studied by IR $\hat{A}$ -LIV double-resonance spectroscopy and ab initio calculations. <i>Physical Chemistry Chemical Physics</i> , 2002, 4, 740-750.	2.8	92
14	Spectroscopy of Isolated Gramicidin Peptides. <i>Angewandte Chemie - International Edition</i> , 2006, 45, 5166-5169.	13.8	77
15	The mid-IR absorption spectrum of gas-phase clusters of the nucleobases guanine and cytosine. <i>Physical Chemistry Chemical Physics</i> , 2004, 6, 2810-2815.	2.8	72
16	REMPI Spectroscopy of Laser Desorbed Guanosines. <i>Journal of the American Chemical Society</i> , 2000, 122, 8091-8092.	13.7	70
17	Laser desorption jet $\hat{A}$ -cooling spectroscopy of para $\hat{A}$ -amino benzoic acid monomer, dimer, and clusters. <i>Journal of Chemical Physics</i> , 1990, 92, 7625-7635.	3.0	55
18	Experimental Observation of Guanine Tautomers with VUV Photoionization. <i>Journal of Physical Chemistry A</i> , 2009, 113, 4829-4832.	2.5	53

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19	How nature covers its bases. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 9701-9716.	2.8	53
20	Spectroscopy on triphenylamine and its van der Waals complexes. <i>Chemical Physics</i> , 1992, 163, 209-222.	1.9	51
21	Fragment-Free Mass Spectrometric Analysis with Jet Cooling/VUV Photoionization. <i>Analytical Chemistry</i> , 1999, 71, 1674-1678.	6.5	49
22	Conformers of Guanosines and their Vibrations in the Electronic Ground and Excited States, as Revealed by Double-Resonance Spectroscopy and Ab Initio Calculations. <i>ChemPhysChem</i> , 2004, 5, 131-137.	2.1	49
23	Microhydration of Guanine Base Pairs. <i>Journal of the American Chemical Society</i> , 2005, 127, 2374-2375.	13.7	48
24	Orientation dependence in the reaction of Xe* with photodissociation polarized IBr. <i>Journal of Chemical Physics</i> , 1983, 78, 5582-5589.	3.0	46
25	IR-UV double resonance spectroscopy of guanineâ€“H <sub>2</sub> O clusters. <i>Physical Chemistry Chemical Physics</i> , 2005, 7, 3015.	2.8	45
26	Comparative mass spectrometric analyses of Photofrin oligomers by fast atom bombardment mass spectrometry, UV and IR matrix-assisted laser desorption/ionization mass spectrometry, electrospray ionization mass spectrometry and laser desorption/jet-cooling photoionization mass spectrometry. <i>Journal of Mass Spectrometry</i> , 1999, 34, 661-669.	1.6	44
27	The Mid-IR Spectra of 9-Ethyl Guanine, Guanosine, and 2-Deoxyguanosine. <i>Journal of Physical Chemistry A</i> , 2007, 111, 7529-7536.	2.5	44
28	Discrimination between diastereoisomeric dipeptides by IR-UV double resonance spectroscopy and ab initio calculations. <i>International Journal of Quantum Chemistry</i> , 2005, 105, 437-445.	2.0	43
29	Non-standard base pairing and stacked structures in methyl xanthine clusters. <i>Physical Chemistry Chemical Physics</i> , 2008, 10, 2819.	2.8	42
30	Gas phase spectroscopy of the pentapeptide FDASV. <i>Chemical Physics Letters</i> , 2006, 431, 227-230.	2.6	41
31	IR-UV double resonance spectroscopy of xanthine. <i>Physical Chemistry Chemical Physics</i> , 2007, 9, 4587.	2.8	40
32	Isolated Gramicidin Peptides Probed by IR Spectroscopy. <i>ChemPhysChem</i> , 2011, 12, 1816-1821.	2.1	39
33	Laser desorption jet-cooling spectroscopy of the benzoic acid monomer. <i>The Journal of Physical Chemistry</i> , 1990, 94, 4394-4396.	2.9	37
34	Conformational analysis of cyclo(Phe-Ser) by UVâ€“UV and IRâ€“UV double resonance spectroscopy and ab initio calculations. <i>Molecular Physics</i> , 2005, 103, 1491-1495.	1.7	34
35	Photoionization mass spectrometer with a microscope laser desorption source. <i>Review of Scientific Instruments</i> , 1992, 63, 3321-3325.	1.3	33
36	Shaping of a Conformationally Flexible Molecular Structure for Spectroscopy. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 3174-3179.	13.8	29

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37	Effect of substituents on the excited-state dynamics of the modified DNA bases 2,4-diaminopyrimidine and 2,6-diaminopurine. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 5375.	2.8	29
38	Measurement of chemiluminescence polarization as a function of collision velocity by time-of-flight spectroscopy: Reactions of Xe* with HCl, HBr, Cl <sub>2</sub> , Br <sub>2</sub> , and I <sub>2</sub> . <i>Journal of Chemical Physics</i> , 1986, 84, 3753-3761.	3.0	28
39	Reactions of metastable argon with photodissociation aligned carbon disulfide: A study of the steric dependence of two competing reaction channels. <i>Journal of Chemical Physics</i> , 1987, 86, 2653-2658.	3.0	27
40	Excited state intramolecular proton transfer in hydroxyanthraquinones: Toward predicting fading of organic red colorants in art. <i>Science Advances</i> , 2019, 5, eaaw5227.	10.3	26
41	Low-temperature Formation of Carbonaceous Dust Grains from PAHs. <i>Astrophysical Journal</i> , 2020, 889, 101.	4.5	26
42	Resonant Infrared Multiple Photon Dissociation Spectroscopy of Anionic Nucleotide Monophosphate Clusters. <i>Journal of Physical Chemistry B</i> , 2015, 119, 7894-7901.	2.6	25
43	Product rotational alignment in the excitation transfer reaction Ar(3P <sub>2</sub> )+N <sub>2</sub> <sup>+</sup> Ar+N <sub>2</sub> (C <sup>∞</sup> 3 <sup>∞</sup> u). <i>Journal of Chemical Physics</i> , 1987, 87, 5830-5839.	3.0	22
44	Excited State Dynamics of 6-Thioguanine. <i>Journal of Physical Chemistry A</i> , 2017, 121, 5257-5266.	2.5	22
45	Resonance-enhanced two-photon ionization time-of-flight spectroscopy of cold perfluorinated polyethers and their external and internal van der Waals dimers. <i>International Journal of Mass Spectrometry and Ion Processes</i> , 1994, 131, 319-334.	1.8	21
46	The effect of C5 substitution on the photochemistry of uracil. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 4924.	2.8	19
47	Transition-metal cationization of laser desorbed perfluorinated polyethers with FTICR mass spectrometry. <i>The Journal of Physical Chemistry</i> , 1993, 97, 4720-4728.	2.9	18
48	Photodynamics of alternative DNA base isoguanine. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 13474-13485.	2.8	18
49	Isomer discrimination of polycyclic aromatic hydrocarbons in the Murchison meteorite by resonant ionization. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2008, 71, 1492-1495.	3.9	17
50	Franck-Condon distributions in the Penning ionization of HCl by metastable helium. <i>Journal of Chemical Physics</i> , 1984, 80, 1366-1367.	3.0	15
51	Velocity dependence of the excimer rotational alignment in the reactions of Xe* with halogenated methanes. <i>Chemical Physics Letters</i> , 1992, 195, 279-285.	2.6	15
52	Guanine-aspartic acid interactions probed with IR-UV resonance spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 3597.	2.8	14
53	Product branching ratios in the reaction of Xe*(3P <sub>2</sub> ,0) with IBr. Role of excited potential surface. <i>Journal of Chemical Physics</i> , 1984, 81, 2352-2356.	3.0	10
54	Half-collision dynamics in the penning ionization of HBr. <i>Chemical Physics Letters</i> , 1984, 110, 400-404.	2.6	10

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55	Evidence for competing proton-transfer and hydrogen-transfer reactions in the S1 state of indigo. <i>Chemical Physics</i> , 2018, 515, 535-542.	1.9	10
56	Excited-State Dynamics of Isocytosine: A Hybrid Case of Canonical Nucleobase Photodynamics. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 5184-5189.	4.6	10
57	Observation of a steric effect in the reaction of Xe* with photodissociation polarized IBr. <i>Journal of Chemical Physics</i> , 1982, 77, 2688-2689.	3.0	9
58	Polymer characterization by laser desorption with multiphoton ionization of end-group chromophores. <i>Applied Surface Science</i> , 1996, 106, 466-472.	6.1	9
59	Structure of 2,4-Diaminopyrimidineâ€“Theobromine Alternate Base Pairs. <i>Journal of Physical Chemistry A</i> , 2011, 115, 11423-11427.	2.5	8
60	Gas-Phase IR Spectroscopy of Nucleobases. <i>Topics in Current Chemistry</i> , 2014, 364, 271-297.	4.0	8
61	Vibrational effects with excitation transfer in metastable rare-gas-halide collisions. <i>Chemical Physics</i> , 1983, 80, 157-165.	1.9	7
62	Resonant Two-Photon Ionization Mass Spectrometry of Jet-Cooled Phenolic Acids and Polyphenols. <i>Analytical Chemistry</i> , 2008, 80, 2199-2203.	6.5	6
63	UV-Excitation from an Experimental Perspective: Frequency Resolved. <i>Topics in Current Chemistry</i> , 2014, 355, 33-56.	4.0	6
64	Velocity dependence of excitation transfer from Ar(43P2) to Kr. <i>Chemical Physics Letters</i> , 1985, 114, 233-236.	2.6	4
65	From underwear to non-equilibrium thermodynamics: physical chemistry informs the origin of life. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 20005-20006.	2.8	4
66	A compact and cost-effective laser desorption source for molecular beam generation: comparison with simulations. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2021, 54, 175401.	1.5	4
67	Revealing the Structure and Noncovalent Interactions of Isolated Molecules by Laser-Desorption/Ionization-Loss Stimulated Raman Spectroscopy and Quantum Calculations. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 11273-11279.	4.6	3
68	Direct Analysis of Xanthine Stimulants in Archaeological Vessels by Laser Desorption Resonance Enhanced Multiphoton Ionization. <i>Analytical Chemistry</i> , 2017, 89, 2838-2843.	6.5	2
69	Shedding Light on Heavy Molecules, One by One. , 2001, , 805-814.		2
70	Laser desorption jet cooling spectroscopy of organic clusters. , 1992, , .		1
71	Production and Characterization of Metal-Encapsulated Fullerenes. <i>Materials Research Society Symposia Proceedings</i> , 1992, 270, 261.	0.1	1
72	Resonance-enhanced two-photon ionization time-of-flight spectroscopy of cold perfluorinated polyethers and their external and internal van der Waals dimers. , 1994, , 319-334.		1

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73	Foreword by the Guest Editors: Modern Analytical Chemistry. Israel Journal of Chemistry, 2001, 41, NA-NA.	2.3	0
74	Laser Analysis and Control of Complex Molecular Systems. ChemPhysChem, 2011, 12, 1775-1776.	2.1	0
75	Low-temperature condensation of carbonaceous dust grains from PAHs. Proceedings of the International Astronomical Union, 2019, 15, 465-467.	0.0	0
76	Two-Step Laser Desorption Mass Spectrometry. , 2001, , .		0