

Vasilios G Stavros

List of Publications by Year in descending order

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114
papers

3,625
citations

126907

33
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155660

55
g-index

116
all docs

116
docs citations

116
times ranked

2593
citing authors

#	ARTICLE	IF	CITATIONS
1	Targeted photoredox catalysis in cancer cells. <i>Nature Chemistry</i> , 2019, 11, 1041-1048.	13.6	293
2	Photoprotection: extending lessons learned from studying natural sunscreens to the design of artificial sunscreen constituents. <i>Chemical Society Reviews</i> , 2017, 46, 3770-3791.	38.1	146
3	The role of $\dot{\text{I}}\ddot{\text{I}}\text{f}^*$ states in the photochemistry of heteroaromatic biomolecules and their subunits: insights from gas-phase femtosecond spectroscopy. <i>Chemical Science</i> , 2014, 5, 1698.	7.4	136
4	Direct Observation of Hydrogen Tunneling Dynamics in Photoexcited Phenol. <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 348-352.	4.6	125
5	Efficient Artificial Light-Harvesting System Based on Supramolecular Peptide Nanotubes in Water. <i>Journal of the American Chemical Society</i> , 2021, 143, 382-389.	13.7	111
6	Ultrafast Photoprotecting Sunscreens in Natural Plants. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 56-61.	4.6	100
7	Combatting AMR: photoactivatable ruthenium(II)-isoniazid complex exhibits rapid selective antimycobacterial activity. <i>Chemical Science</i> , 2017, 8, 395-404.	7.4	99
8	Probing the Ultrafast Energy Dissipation Mechanism of the Sunscreen Oxybenzone after UVA Irradiation. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 1363-1368.	4.6	97
9	Exploring the Time-Scales of H-Atom Detachment from Photoexcited Phenol- h_6 and Phenol- d_5 : Statistical vs Nonstatistical Decay. <i>Journal of Physical Chemistry A</i> , 2009, 113, 8157-8163.	2.5	84
10	Unraveling Ultrafast Dynamics in Photoexcited Aniline. <i>Journal of the American Chemical Society</i> , 2012, 134, 12578-12589.	13.7	80
11	Probing ultrafast dynamics in photoexcited pyrrole: timescales for $1\dot{\text{I}}\ddot{\text{I}}\text{f}^*$ mediated H-atom elimination. <i>Faraday Discussions</i> , 2013, 163, 95.	3.2	73
12	Aminomaleimide fluorophores: a simple functional group with bright, solvent dependent emission. <i>Chemical Communications</i> , 2015, 51, 9733-9736.	4.1	72
13	Direct versus Indirect H Atom Elimination from Photoexcited Phenol Molecules. <i>Journal of Physical Chemistry A</i> , 2008, 112, 9531-9534.	2.5	69
14	Exploring quantum phenomena and vibrational control in $\dot{\text{I}}\ddot{\text{I}}\text{f}^*$ mediated photochemistry. <i>Chemical Science</i> , 2013, 4, 993-1001.	7.4	67
15	Ultrafast photo-induced ligand solvolysis of $\text{cis-}[\text{Ru}(\text{bipyridine})_2(\text{nicotinamide})_2]^{2+}$: experimental and theoretical insight into its photoactivation mechanism. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 19141-19155.	2.8	65
16	Time-resolved velocity map ion imaging study of NH_3 photodissociation. <i>Journal of Chemical Physics</i> , 2009, 130, 074308.	3.0	55
17	A bright future for sunscreens. <i>Nature Chemistry</i> , 2014, 6, 955-956.	13.6	55
18	Gas-Phase Femtosecond Particle Spectroscopy: A Bottom-Up Approach to Nucleotide Dynamics. <i>Annual Review of Physical Chemistry</i> , 2016, 67, 211-232.	10.8	55

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19	Towards symmetry driven and nature inspired UV filter design. <i>Nature Communications</i> , 2019, 10, 4748.	12.8	54
20	A Perspective on the Ultrafast Photochemistry of Solution-Phase Sunscreen Molecules. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 4655-4665.	4.6	52
21	Manipulating dynamics with chemical structure: probing vibrationally-enhanced tunnelling in photoexcited catechol. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 6879.	2.8	48
22	Time-resolved photoelectron imaging of the isolated deprotonated nucleotides. <i>Chemical Science</i> , 2014, 5, 3963-3975.	7.4	46
23	Photophysics of sunscreen molecules in the gas phase: a stepwise approach towards understanding and developing next-generation sunscreens. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2016, 472, 20160677.	2.1	46
24	Broadband ultrafast photoprotection by oxybenzone across the UVB and UVC spectral regions. <i>Photochemical and Photobiological Sciences</i> , 2015, 14, 1814-1820.	2.9	45
25	Mapping the Ultrafast Dynamics of Adenine onto Its Nucleotide and Oligonucleotides by Time-Resolved Photoelectron Imaging. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 843-848.	4.6	43
26	Bottom-up excited state dynamics of two cinnamate-based sunscreen filter molecules. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 28140-28149.	2.8	43
27	Two-Photon-Activated Ligand Exchange in Platinum(II) Complexes. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 11263-11266.	13.8	42
28	Solvent induced conformer specific photochemistry of guaiacol. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 16187.	2.8	41
29	Active Participation of $1\langle\sup\rangle\tilde{\text{I}}\tilde{\text{I}}\tilde{\text{f}}^*$ States in the Photodissociation of Tyrosine and Its Subunits. <i>Journal of Physical Chemistry Letters</i> , 2010, 1, 2274-2278.	4.6	40
30	Photodynamics of potent antioxidants: ferulic and caffeic acids. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 17691-17697.	2.8	40
31	Competing $\tilde{\text{I}}\tilde{\text{I}}\tilde{\text{f}}^*$ States in the Photodissociation of Adenine. <i>Journal of Physical Chemistry Letters</i> , 2010, 1, 993-996.	4.6	38
32	Exploring the Time Scales of H-Atom Elimination from Photoexcited Indole. <i>Journal of Physical Chemistry A</i> , 2010, 114, 68-72.	2.5	36
33	Time resolved velocity map imaging of H-atom elimination from photoexcited imidazole and its methyl substituted derivatives. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 10342.	2.8	35
34	Photoisomerization of ethyl ferulate: A solution phase transient absorption study. <i>Chemical Physics Letters</i> , 2017, 673, 62-67.	2.6	35
35	Unravelling the Photoprotection Properties of Mycosporine Amino Acid Motifs. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 3043-3048.	4.6	34
36	Investigation of multiple electronic excited state relaxation pathways following 200 nm photolysis of gas-phase imidazole. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 6266.	2.8	33

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37	Investigating isomer specific photoprotection in a model plant sunscreen. <i>Chemical Communications</i> , 2018, 54, 936-939.	4.1	33
38	Towards elucidating the photochemistry of the sunscreen filter ethyl ferulate using time-resolved gas-phase spectroscopy. <i>Faraday Discussions</i> , 2016, 194, 709-729.	3.2	31
39	Spectroscopic Studies on Photoinduced Reactions of the Anticancer Prodrug, <i>trans,trans,trans</i> -[Pt(N ₃) ₂ (OH) ₂ (py) ₂]. <i>Chemistry - A European Journal</i> , 2018, 24, 5790-5803.	3.3	31
40	From Fundamental Science to Product: A Bottom-up Approach to Sunscreen Development. <i>Science Progress</i> , 2018, 101, 8-31.	1.9	31
41	Elucidating nuclear motions in a plant sunscreen during photoisomerization through solvent viscosity effects. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 21127-21131.	2.8	30
42	Entrapment and Rigidification of Adenine by a Photo-Cross-Linked Thymine Network Leads to Fluorescent Polymer Nanoparticles. <i>Chemistry of Materials</i> , 2018, 30, 1408-1416.	6.7	28
43	Unravelling the Photoprotective Mechanisms of Nature-Inspired Ultraviolet Filters Using Ultrafast Spectroscopy. <i>Molecules</i> , 2020, 25, 3945.	3.8	28
44	Controlling the Angular Momentum Composition of a Rydberg Electron Wave Packet. <i>Physical Review Letters</i> , 2002, 89, 263004.	7.8	27
45	Competing $\tilde{1}^1\tilde{f}^*$ mediated dynamics in mequinol: O-H versus O-CH ₃ photodissociation pathways. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 13415.	2.8	27
46	Recent advances in experimental techniques to probe fast excited-state dynamics in biological molecules in the gas phase: dynamics in nucleotides, amino acids and beyond. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2013, 469, 20130458.	2.1	27
47	Observation of ultrafast NH ₃ (\tilde{A}) state relaxation dynamics using a combination of time-resolved photoelectron spectroscopy and photoproduct detection. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 10401.	2.8	26
48	Observing and Understanding the Ultrafast Photochemistry in Small Molecules: Applications to Sunscreens. <i>Science Progress</i> , 2016, 99, 282-311.	1.9	26
49	Gas-Phase Solution Phase Transient Absorption Study of the Plant Sunscreen Derivative Methyl Sinapate. <i>ChemPhotoChem</i> , 2018, 2, 743-748.	3.0	26
50	Insights into the photoprotection mechanism of the UV filter homosalate. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 15509-15519.	2.8	26
51	Time-resolved velocity map imaging of methyl elimination from photoexcited anisole. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 4494.	2.8	25
52	Exploring Ultrafast H-Atom Elimination versus Photofragmentation Pathways in Pyrazole Following 200 nm Excitation. <i>Journal of Physical Chemistry A</i> , 2012, 116, 2600-2609.	2.5	23
53	New Generation UV-A Filters: Understanding Their Photodynamics on a Human Skin Mimic. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 337-344.	4.6	23
54	Towards Understanding Photodegradation Pathways in Lignins: The Role of Intramolecular Hydrogen Bonding in Excited States. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 2138-2143.	4.6	22

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55	Ultrafast photoprotective properties of the sunscreensing agent octocrylene. <i>Optics Express</i> , 2016, 24, 10700.	3.4	22
56	Base-Specific Ionization of Deprotonated Nucleotides by Resonance Enhanced Two-Photon Detachment. <i>Journal of Physical Chemistry A</i> , 2013, 117, 5299-5305.	2.5	21
57	Ultrafast Excited-State Dynamics of 2,4-Dimethylpyrrole. <i>Journal of Physical Chemistry A</i> , 2014, 118, 10909-10918.	2.5	21
58	Bridging the Gap between the Gas Phase and Solution Phase: Solvent Specific Photochemistry in 4- <i>tert</i> -Butylcatechol. <i>Journal of Physical Chemistry A</i> , 2015, 119, 11989-11996.	2.5	21
59	Applications of ultrafast spectroscopy to sunscreen development, from first principles to complex mixtures. <i>International Reviews in Physical Chemistry</i> , 2019, 38, 243-285.	2.3	21
60	First Step toward a Universal Fluorescent Probe: Unravelling the Photodynamics of an Amino- α -Maleimide Fluorophore. <i>Journal of Physical Chemistry A</i> , 2017, 121, 6357-6365.	2.5	20
61	Vibrationally Autoionizing Rydberg Wave Packets in NO. <i>Physical Review Letters</i> , 1999, 83, 2552-2555.	7.8	19
62	Comparing the ultraviolet photostability of azole chromophores. <i>Chemical Science</i> , 2012, 3, 1192.	7.4	19
63	Bio-based photo-reversible self-healing polymer designed from lignin. <i>Green Chemistry</i> , 2021, 23, 10050-10061.	9.0	19
64	Relaxation dynamics of photoexcited resorcinol: internal conversion versus H atom tunnelling. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 550-562.	2.8	18
65	Ultrafast photophysical studies of a multicomponent sunscreen: Oxybenzone- α -titanium dioxide mixtures. <i>Chemical Physics Letters</i> , 2016, 664, 39-43.	2.6	18
66	Towards developing novel and sustainable molecular light-to-heat converters. <i>Chemical Science</i> , 2021, 12, 15239-15252.	7.4	18
67	The role of phase in molecular Rydberg wave packet dynamics. <i>Journal of Chemical Physics</i> , 2003, 119, 3085-3091.	3.0	17
68	A Multipronged Comparative Study of the Ultraviolet Photochemistry of 2-, 3-, and 4-Chlorophenol in the Gas Phase. <i>Journal of Physical Chemistry A</i> , 2015, 119, 6045-6056.	2.5	17
69	Torsional Motion of the Chromophore Catechol following the Absorption of Ultraviolet Light. <i>Physical Review Letters</i> , 2015, 114, 233001.	7.8	16
70	Communication Breakdown: Dissecting the COM Interfaces between the Subunits of Nonribosomal Peptide Synthetases. <i>ACS Catalysis</i> , 2021, 11, 10802-10813.	11.2	14
71	Controlling the radial dynamics of Rydberg wavepackets in Xe using phase-locked optical pulse sequences. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2003, 36, 3683-3696.	1.5	13
72	Tunneling Dynamics of the NH ₃ (\tilde{A}) State Observed by Time-Resolved Photoelectron and H Atom Kinetic Energy Spectroscopies. <i>Journal of Physical Chemistry A</i> , 2014, 118, 9438-9444.	2.5	13

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73	Exploring the Blueprint of Photoprotection in Mycosporine-like Amino Acids. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 3641-3646.	4.6	13
74	Ultrafast photodissociation dynamics of 2-ethylpyrrole: adding insight to experiment with <i>ab initio</i> multiple cloning. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 3832-3841.	2.8	12
75	Retaining individualities: the photodynamics of self-ordering porphyrin assemblies. <i>Chemical Communications</i> , 2016, 52, 1938-1941.	4.1	11
76	The role of symmetric functionalisation on photoisomerisation of a UV commercial chemical filter. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 14350-14356.	2.8	10
77	Conservation of ultrafast photoprotective mechanisms with increasing molecular complexity in sinapoyl malate derivatives. <i>ChemPhysChem</i> , 2020, 21, 2006-2011.	2.1	10
78	Reinvestigating the Photoprotection Properties of a Mycosporine Amino Acid Motif. <i>Frontiers in Chemistry</i> , 2020, 8, 574038.	3.6	10
79	Observation of autoionizing Rydberg-electron wave packets in Xe. <i>Physical Review A</i> , 1999, 59, 2186-2189.	2.5	9
80	Ultrafast Transient Absorption Spectroscopy of the Sunscreen Constituent Ethylhexyl Triazone. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 2113-2118.	4.6	9
81	Wavepacket insights into the photoprotection mechanism of the UV filter methyl anthranilate. <i>Nature Communications</i> , 2018, 9, 5188.	12.8	9
82	Examining solvent effects on the ultrafast dynamics of catechol. <i>Journal of Chemical Physics</i> , 2019, 151, 084305.	3.0	9
83	An Ultrafast Shakedown Reveals the Energy Landscape, Relaxation Dynamics, and Concentration of the N ₃ VH ⁰ Defect in Diamond. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 6677-6683.	4.6	9
84	Exploring the Photochemistry of an Ethyl Sinapate Dimer: An Attempt Toward a Better Ultraviolet Filter. <i>Frontiers in Chemistry</i> , 2020, 8, 633.	3.6	9
85	Rigidochromism by imide functionalisation of an aminomaleimide fluorophore. <i>Chemical Science</i> , 2021, 12, 10550-10557.	7.4	9
86	Extreme population inversion in the fragments formed by UV photoinduced S-H bond fission in 2-thiophenethiol. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 11401-11410.	2.8	8
87	Ultrafast Dissociation Dynamics of 2-Ethylpyrrole. <i>Journal of Physical Chemistry A</i> , 2017, 121, 969-976.	2.5	8
88	Unravelling photoprotection in microbial natural products. <i>Science Progress</i> , 2019, 102, 287-303.	1.9	8
89	Determination of Secondary Species in Solution through Pump-Selective Transient Absorption Spectroscopy and Explicit-Solvent TDDFT. <i>Journal of Physical Chemistry A</i> , 2019, 123, 873-880.	2.5	8
90	Computational and experimental characterization of novel ultraviolet filters. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 25390-25395.	2.8	8

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91	A systematic approach to methyl cinnamate photodynamics. <i>Molecular Physics</i> , 2021, 119, e1811910.	1.7	8
92	Ultrafast transient absorption spectroelectrochemistry: femtosecond to nanosecond excited-state relaxation dynamics of the individual components of an anthraquinone redox couple. <i>Chemical Science</i> , 2022, 13, 486-496.	7.4	8
93	A nano-stabilization technique for low repetition rate phase-sensitive optical experiments. <i>Measurement Science and Technology</i> , 1998, 9, 378-382.	2.6	7
94	Ultrafast photodissociation dynamics of pyrazole, imidazole and their deuterated derivatives using <i>ab initio</i> multiple cloning. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 9987-9995.	2.8	7
95	Determining the photostability of avobenzone in sunscreen formulation models using ultrafast spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 24439-24448.	2.8	7
96	A Perspective on Femtosecond Pump-Probe Spectroscopy in the Development of Future Sunscreens. <i>Journal of Physical Chemistry A</i> , 2022, 126, 2299-2308.	2.5	7
97	Calculations of the dynamics of phase-locked vibrational wave packets in Na ²⁺ : Young's double slit experiment in a molecule. <i>Journal of Chemical Physics</i> , 2000, 112, 9343-9352.	3.0	6
98	New insights into the dissociation dynamics of methylated anilines. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 14394-14406.	2.8	6
99	Sustainable synthesis, <i>in silico</i> evaluation of potential toxicity and environmental fate, antioxidant and UV-filtering/photostability activity of phenolic-based thiobarbituric derivatives. <i>Green Chemistry Letters and Reviews</i> , 2022, 15, 116-127.	4.7	6
100	Probing Redox Reactions of Immobilized Cytochrome <i>c</i> Using Evanescent Wave Cavity Ring-Down Spectroscopy in a Thin-Layer Electrochemical Cell. <i>ChemPhysChem</i> , 2010, 11, 2985-2991.	2.1	5
101	Substituent position effects on sunscreen photodynamics: A closer look at methyl anthranilate. <i>Chemical Physics</i> , 2018, 515, 596-602.	1.9	5
102	Relaxation dynamics of photoexcited dihydroxybenzene: A comparative study. <i>Biomedical Spectroscopy and Imaging</i> , 2014, 3, 271-279.	1.2	4
103	Investigating the Ultrafast Dynamics and Long-Term Photostability of an Isomer Pair, Usujirene and Palythene, from the Mycosporine-like Amino Acid Family. <i>Molecules</i> , 2022, 27, 2272.	3.8	4
104	Effect of Electron Donating/Withdrawing Groups on Molecular Photoswitching of Functionalized Hemithioindigo Derivatives: a Computational Multireference Study. <i>ChemPhotoChem</i> , 2022, 6, .	3.0	4
105	From Biomass-Derived <i>p</i> -Hydroxycinnamic Acids to Novel Sustainable and Non-Toxic Phenolics-Based UV-Filters: A Multidisciplinary Journey. <i>Frontiers in Chemistry</i> , 0, 10, .	3.6	4
106	Vibrationally autoionizing electron wave packets in a combined Coulombic and electric field. <i>Physical Review A</i> , 1999, 60, 4774-4780.	2.5	3
107	Excited-State Dynamics of a Two-Photon-Activatable Ruthenium Prodrug. <i>ChemPhysChem</i> , 2016, 17, 221-224.	2.1	3
108	Effects of substituent position on aminobenzoate relaxation pathways in solution. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 23242-23255.	2.8	3

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109	Experimental and Computational Analysis of Para-Hydroxy Methylcinnamate following Photoexcitation. <i>Molecules</i> , 2021, 26, 7621.	3.8	3
110	Intramolecular thiomaleimide [2 + 2] photocycloadditions: stereoselective control for disulfide stapling and observation of excited state intermediates by transient absorption spectroscopy. <i>Chemical Science</i> , 2022, 13, 2909-2918.	7.4	2
111	Unravelling the Photoprotection Properties of Garden Cress Sprout Extract. <i>Molecules</i> , 2021, 26, 7631.	3.8	2
112	Probing Rotational Motion in 4- <i>tert</i> -Butylcatechol through H Atom Photofragmentation: Deviations from Axial Recoil. <i>Journal of Physical Chemistry A</i> , 2015, 119, 12131-12137.	2.5	1
113	Spectroscopic Studies on Photoinduced Reactions of the Anticancer Prodrug, <i>trans,trans,trans</i> -[Pt(N ₃) ₂ (OH) ₂ (py) ₂]. <i>Chemistry - A European Journal</i> , 2018, 24, 5679-5679.	3.3	0
114	Highlights from Faraday Discussion on Ultrafast Photoinduced Energy and Charge Transfer, Ventura, CA, USA, April 2019. <i>Chemical Communications</i> , 2019, 55, 9232-9240.	4.1	0