

Barbara Marchetti

List of Publications by Year in descending order

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Version: 2024-02-01

21
papers

569
citations

687363

13
h-index

794594

19
g-index

21
all docs

21
docs citations

21
times ranked

642
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	A "bottom up"™, ab initio computational approach to understanding fundamental photophysical processes in nitrogen containing heterocycles, DNA bases and base pairs. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 20007-20027.	2.8	78
3	Synthesis, Electronic Spectroscopy, and Photochemistry of Methacrolein Oxide: A Four-Carbon Unsaturated Criegee Intermediate from Isoprene Ozonolysis. <i>Journal of the American Chemical Society</i> , 2019, 141, 15058-15069.	13.7	52
4	Electronic spectroscopy of methyl vinyl ketone oxide: A four-carbon unsaturated Criegee intermediate from isoprene ozonolysis. <i>Journal of Chemical Physics</i> , 2018, 149, 244309.	3.0	44
5	Symmetry matters: photodissociation dynamics of symmetrically versus asymmetrically substituted phenols. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 588-598.	2.8	38
6	Theoretical insights into the photo-protective mechanisms of natural biological sunscreens: building blocks of eumelanin and pheomelanin. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 3644-3658.	2.8	34
7	Exploring the Dynamics of the Photoinduced Ring-Opening of Heterocyclic Molecules. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 3440-3451.	4.6	28
8	Exploring Norrish type I and type II reactions: an <i>ab initio</i> mechanistic study highlighting singlet-state mediated chemistry. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 14418-14428.	2.8	24
9	A Simple and Efficient Method for Simulating the Electronic Absorption Spectra of Criegee Intermediates: Benchmarking on CH ₂ OO and CH ₃ CHOO. <i>Journal of Physical Chemistry A</i> , 2021, 125, 4089-4097.	2.5	18
10	Near ultraviolet photochemistry of 2-bromo- and 2-iodothiophene: Revealing photoinduced ring opening in the gas phase?. <i>Journal of Chemical Physics</i> , 2015, 142, 224303.	3.0	17
11	Photodissociation Dynamics of CH ₂ OO on Multiple Potential Energy Surfaces: Experiment and Theory. <i>Journal of Physical Chemistry A</i> , 2021, 125, 6571-6579.	2.5	16
12	The near ultraviolet photodissociation dynamics of 2- and 3-substituted thiophenols: Geometric vs. electronic structure effects. <i>Journal of Chemical Physics</i> , 2017, 147, 013923.	3.0	14
13	Photodissociation dynamics of methyl vinyl ketone oxide: A four-carbon unsaturated Criegee intermediate from isoprene ozonolysis. <i>Journal of Chemical Physics</i> , 2021, 155, 174305.	3.0	14
14	Insights into the Ultrafast Dynamics of CH ₂ OO and CH ₃ CHOO Following Excitation to the Bright 1 ¹ Σ ⁺ State: The Role of Singlet and Triplet States. <i>Photochemistry and Photobiology</i> , 2021, , .	2.5	12
15	Electronic Absorption Spectroscopy and Photochemistry of Criegee Intermediates. <i>Photochemistry and Photobiology</i> , 2023, 99, 4-18.	2.5	11
16	Modeling the Conformer-Dependent Electronic Absorption Spectra and Photolysis Rates of Methyl Vinyl Ketone Oxide and Methacrolein Oxide. <i>Journal of Physical Chemistry A</i> , 2022, 126, 485-496.	2.5	10
17	Origins of Photodamage in Pheomelanin Constituents: Photochemistry of 4-Hydroxybenzothiazole. <i>Journal of Physical Chemistry A</i> , 2018, 122, 1986-1993.	2.5	5
18	Affordable Setup for Studying Photochemistry in Action in Undergraduate Teaching Laboratories: Principles and Applications. <i>Journal of Chemical Education</i> , 2020, 97, 2203-2211.	2.3	5

#	ARTICLE	IF	CITATIONS
19	The Role of Norrish Type-I Chemistry in Photoactive Drugs: An ab initio Study of a Cyclopropanone-Enediyne Drug Precursor. <i>Frontiers in Chemistry</i> , 2020, 8, 596590.	3.6	3
20	Photoprotective Properties of Eumelanin: Computational Insights into the Photophysics of a Catechol:Quinone Heterodimer Model System. <i>Photochem</i> , 2021, 1, 26-37.	2.2	0
21	Simulating Electronic Absorption Spectra of Atmospherically Relevant Molecules: A Systematic Assignment for Enhancing Undergraduate STEM Education. <i>Education Sciences</i> , 2022, 12, 252.	2.6	0