Barbara Marchetti

List of Publications by Year
in descending order

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	Electronic Absorption Spectroscopy and Photochemistry of Criegee Intermediates. Photochemistry and Photobiology, 2023, 99, 4-18.	2.5	11
2	Modeling the Conformer-Dependent Electronic Absorption Spectra and Photolysis Rates of Methyl Vinyl Ketone Oxide and Methacrolein Oxide. Journal of Physical Chemistry A, 2022, 126, 485-496.	2.5	10
3	Simulating Electronic Absorption Spectra of Atmospherically Relevant Molecules: A Systematic Assignment for Enhancing Undergraduate STEM Education. Education Sciences, 2022, 12, 252.	2.6	0
4	Photoprotective Properties of Eumelanin: Computational Insights into the Photophysics of a Catechol:Quinone Heterodimer Model System. Photochem, 2021, 1, 26-37.	2.2	0
5	A Simple and Efficient Method for Simulating the Electronic Absorption Spectra of Criegee Intermediates: Benchmarking on CH₂OO and CH₃CHOO. Journal of Physical Chemistry A, 2021, 125, 4089-4097.	2.5	18
6	Photodissociation Dynamics of CH₂OO on Multiple Potential Energy Surfaces: Experiment and Theory. Journal of Physical Chemistry A, 2021, 125, 6571-6579.	2.5	16
7	Photodissociation dynamics of methyl vinyl ketone oxide: A four-carbon unsaturated Criegee intermediate from isoprene ozonolysis. Journal of Chemical Physics, 2021, 155, 174305.	3.0	14
8	Insights into the Ultrafast Dynamics of CH 2 OO and CH 3 CHOO Following Excitation to the Bright 1 ï€ï€* State: The Role of Singlet and Triplet States. Photochemistry and Photobiology, 2021, , .	2.5	12
9	Affordable Setup for Studying Photochemistry in Action in Undergraduate Teaching Laboratories: Principles and Applications. Journal of Chemical Education, 2020, 97, 2203-2211.	2.3	5
10	The Role of Norrish Type-I Chemistry in Photoactive Drugs: An ab initio Study of a Cyclopropenone-Enediyne Drug Precursor. Frontiers in Chemistry, 2020, 8, 596590.	3.6	3
11	Synthesis, Electronic Spectroscopy, and Photochemistry of Methacrolein Oxide: A Four-Carbon Unsaturated Criegee Intermediate from Isoprene Ozonolysis. Journal of the American Chemical Society, 2019, 141, 15058-15069.	13.7	52
12	Exploring Norrish type I and type II reactions: an <i>ab initio</i> mechanistic study highlighting singlet-state mediated chemistry. Physical Chemistry Chemical Physics, 2019, 21, 14418-14428.	2.8	24
13	Origins of Photodamage in Pheomelanin Constituents: Photochemistry of 4-Hydroxybenzothiazole. Journal of Physical Chemistry A, 2018, 122, 1986-1993.	2.5	5
14	Electronic spectroscopy of methyl vinyl ketone oxide: A four-carbon unsaturated Criegee intermediate from isoprene ozonolysis. Journal of Chemical Physics, 2018, 149, 244309.	3.0	44
15	The near ultraviolet photodissociation dynamics of 2- and 3-substituted thiophenols: Geometric vs. electronic structure effects. Journal of Chemical Physics, 2017, 147, 013923.	3.0	14
16	Exploring the Dynamics of the Photoinduced Ring-Opening of Heterocyclic Molecules. Journal of Physical Chemistry Letters, 2017, 8, 3440-3451.	4.6	28
17	Photoprotection: extending lessons learned from studying natural sunscreens to the design of artificial sunscreen constituents. Chemical Society Reviews, 2017, 46, 3770-3791.	38.1	146
18	A â€˜bottom upâ€™, ab initio computational approach to understanding fundamental photophysical processes in nitrogen containing heterocycles, DNA bases and base pairs. Physical Chemistry Chemical Physics, 2016, 18, 20007-20027.	2.8	78

#	Article	IF	Citations
19	Theoretical insights into the photo-protective mechanisms of natural biological sunscreens: building blocks of eumelanin and pheomelanin. Physical Chemistry Chemical Physics, 2016, 18, 3644-3658.	2.8	34
20	Near ultraviolet photochemistry of 2-bromo- and 2-iodothiophene: Revealing photoinduced ring opening in the gas phase?. Journal of Chemical Physics, 2015, 142, 224303.	3.0	17
21	Symmetry matters: photodissociation dynamics of symmetrically versus asymmetrically substituted phenols. Physical Chemistry Chemical Physics, 2014, 16, 588-598.	2.8	38