Caroline C Womack

List of Publications by Year
in descending order

31 papers	830 citations	516710 16 h-index	501196 28 g-index
41 all docs	41 docs citations	41 times ranked	1256 citing authors

#	Article	IF	Citations
1	The Simplest Criegee Intermediate (H₂Câ•Oâ€“O): Isotopic Spectroscopy, Equilibrium Structure, and Possible Formation from Atmospheric Lightning. Journal of Physical Chemistry Letters, 2013, 4, 4133-4139.	4.6	88
2	An Odd Oxygen Framework for Wintertime Ammonium Nitrate Aerosol Pollution in Urban Areas: NO_x and VOC Control as Mitigation Strategies. Geophysical Research Letters, 2019, 46, 4971-4979.	4.0	80
3	Observation of the simplest Criegee intermediate CH ₂ OO in the gas-phase ozonolysis of ethylene. Science Advances, 2015, 1, e1400105.	10.3	73
4	Spontaneous and Selective Formation of HSNO, a Crucial Intermediate Linking H₂S and Nitroso Chemistries. Journal of the American Chemical Society, 2016, 138, 11441-11444.	13.7	60
5	Ozone chemistry in western U.S. wildfire plumes. Science Advances, 2021, 7, eabl3648.	10.3	45
6	A Molecular Precursor to Phosphaethyne and Its Application in Synthesis of the Aromatic 1,2,3,4-Phosphatriazolate Anion. Journal of the American Chemical Society, 2016, 138, 6731-6734.	13.7	40
7	Evidence in biomass burning smoke for a light-absorbing aerosol with properties intermediate between brown and black carbon. Aerosol Science and Technology, 2019, 53, 976-989.	3.1	37
8	Nighttime and daytime dark oxidation chemistry in wildfire plumes: an observation and model analysis of FIREX-AQ aircraft data. Atmospheric Chemistry and Physics, 2021, 21, 16293-16317.	4.9	34
9	Airborne and ground-based observations of ammonium-nitrate-dominated aerosols in a shallow boundary layer during intense winter pollution episodes in northern Utah. Atmospheric Chemistry and Physics, 2018, 18, 17259-17276.	4.9	33
10	On the contribution of nocturnal heterogeneous reactive nitrogen chemistry to particulate matter formation during wintertime pollution events in Northern Utah. Atmospheric Chemistry and Physics, 2019, 19, 9287-9308.	4.9	33
11	Modeling the Rovibrationally Excited C₂H₄OH Radicals from the Photodissociation of 2-Bromoethanol at 193 nm. Journal of Physical Chemistry A, 2010, 114, 4934-4945.	2.5	29
12	Formaldehyde evolution in US wildfire plumes during the Fire Influence on Regional to Global Environments and Air Quality experiment (FIREX-AQ). Atmospheric Chemistry and Physics, 2021, 21, 18319-18331.	4.9	24
13	Assessing an Impulsive Model for Rotational Energy Partitioning to Acetyl Radicals from the Photodissociation of Acetyl Chloride at 235 nm. Journal of Physical Chemistry A, 2010, 114, 13005-13010.	2.5	20
14	Investigating biomass burning aerosol morphology using a laser imaging nephelometer. Atmospheric Chemistry and Physics, 2018, 18, 1879-1894.	4.9	20
15	Millimeter-wave optical double resonance schemes for rapid assignment of perturbed spectra, with applications to the C̃1B2 state of SO2. Journal of Chemical Physics, 2015, 142, 144201.	3.0	18
16	Evaluation of the accuracy of thermal dissociation CRDS and LIF techniques for atmospheric measurement of reactive nitrogen species. Atmospheric Measurement Techniques, 2017, 10, 1911-1926.	3.1	18
17	Effects of High Angular Momentum on the Unimolecular Dissociation of CD2CD2OH: Theory and Comparisons with Experiment. Journal of Physical Chemistry A, 2013, 117, 10951-10963.	2.5	16
18	Gasâ€Phase Structure Determination of Dihydroxycarbene, One of the Smallest Stable Singlet Carbenes. Angewandte Chemie - International Edition, 2014, 53, 4089-4092.	13.8	16

#	Article	IF	Citations
19	Wintertime spatial distribution of ammonia and its emission sources in the Great Salt Lake region. Atmospheric Chemistry and Physics, 2019, 19, 15691-15709.	4.9	15
20	Airborne Emission Rate Measurements Validate Remote Sensing Observations and Emission Inventories of Western U.S. Wildfires. Environmental Science & Technology, 2022, 56, 7564-7577.	10.0	15
21	Coupled Air Quality and Boundary-Layer Meteorology in Western U.S. Basins during Winter: Design and Rationale for a Comprehensive Study. Bulletin of the American Meteorological Society, 2021, 102, E2012-E2033.	3.3	14
22	A portable, robust, stable, and tunable calibration source for gas-phase nitrous acid (HONO). Atmospheric Measurement Techniques, 2020, 13, 5873-5890.	3.1	14
23	Complex refractive indices in the ultraviolet and visible spectral region for highly absorbing non-spherical biomass burning aerosol. Atmospheric Chemistry and Physics, 2021, 21, 7235-7252.	4.9	11
24	Novel Analysis to Quantify Plume Crosswind Heterogeneity Applied to Biomass Burning Smoke. Environmental Science & Technology, 2021, 55, 15646-15657.	10.0	11
25	Radical Intermediates in the Addition of OH to Propene: Photolytic Precursors and Angular Momentum Effects. Journal of Physical Chemistry A, 2014, 118, 3211-3229.	2.5	10
26	Complexity in the Evolution, Composition, and Spectroscopy of Brown Carbon in Aircraft Measurements of Wildfire Plumes. Geophysical Research Letters, 2022, 49, .	4.0	10
27	Characterizing the Rovibrational Distribution of CD₂CD₂OH Radicals Produced via the Photodissociation of 2-Bromoethanol-d₄. Journal of Physical Chemistry A, 2011, 115, 14559-14569.	2.5	9
28	Photoproduct Channels from BrCD₂CD₂OH at 193 nm and the HDO + Vinyl Products from the CD₂CD₂OH Radical Intermediate. Journal of Physical Chemistry A, 2012, 116, 6394-6407.	2.5	9
29	Dissociative photoionization of CH3C(O)CH2 to C2H5+. International Journal of Mass Spectrometry, 2011, 304, 45-50.	1.5	7
30	The dissociation of vibrationally excited CH3OSO radicals and their photolytic precursor, methoxysulfinyl chloride. Journal of Chemical Physics, 2011, 134, 194304.	3.0	5
31	Oxygen-18 Isotopic Studies of HOOO and DOOO. Journal of Physical Chemistry A, 2017, 121, 6296-6303.	2.5	4