Cort Anastasio

List of Publications by Year
in descending order

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83 papers	4,573 citations	87888 38 h-index	114465 63 g-index
85 all docs	85 docs citations	85 times ranked	3554 citing authors

#	Article	IF	Citations
1	Quantum Yields of Hydroxyl Radical and Nitrogen Dioxide from the Photolysis of Nitrate on Ice. Journal of Physical Chemistry A, 2003, 107, 9594-9602.	2.5	226
2	Free and combined amino compounds in atmospheric fine particles (PM2.5) and fog waters from Northern California. Atmospheric Environment, 2003, 37, 2247-2258.	4.1	218
3	Chemistry of fog waters in California's Central Valley: 1. In situ photoformation of hydroxyl radical and singlet molecular oxygen. Atmospheric Environment, 2001, 35, 1079-1089.	4.1	159
4	Formation of Hydroxyl Radical from the Photolysis of Frozen Hydrogen Peroxide. Journal of Physical Chemistry A, 2005, 109, 6264-6271.	2.5	149
5	2-Nitrobenzaldehyde as a chemical actinometer for solution and ice photochemistry. Journal of Photochemistry and Photobiology A: Chemistry, 2010, 209, 186-192.	3.9	138
6	Chemistry of fog waters in California's Central Valleyâ€”Part 3: concentrations and speciation of organic and inorganic nitrogen. Atmospheric Environment, 2001, 35, 5629-5643.	4.1	131
7	Aromatic Carbonyl Compounds as Aqueous-Phase Photochemical Sources of Hydrogen Peroxide in Acidic Sulfate Aerosols, Fogs, and Clouds. 1. Non-Phenolic Methoxybenzaldehydes and Methoxyacetophenones with Reductants (Phenols). Environmental Science & Technology, 1997, 31, 218-232.	10.0	130
8	Secondary Organic Aerosol Production from Aqueous Reactions of Atmospheric Phenols with an Organic Triplet Excited State. Environmental Science & Technology, 2014, 48, 1049-1057.	10.0	130
9	A General Scavenging Rate Constant for Reaction of Hydroxyl Radical with Organic Carbon in Atmospheric Waters. Environmental Science & Technology, 2013, 47, 8196-8203.	10.0	129
10	Water-soluble organic nitrogen in atmospheric fine particles (PM2.5) from northern California. Journal of Geophysical Research, 2002, 107, AAC 3-1-AAC 3-9.	3.3	128
11	Chemistry of fog waters in California's Central Valley: 2. Photochemical transformations of amino acids and alkyl amines. Atmospheric Environment, 2001, 35, 1091-1104.	4.1	121
12	Hydrogen Peroxide Formation in a Surrogate Lung Fluid by Transition Metals and Quinones Present in Particulate Matter. Environmental Science & Technology, 2014, 48, 7010-7017.	10.0	121
13	Generation of hydroxyl radicals from dissolved transition metals in surrogate lung fluid solutions. Atmospheric Environment, 2008, 42, 4369-4379.	4.1	110
14	Impacts of antioxidants on hydroxyl radical production from individual and mixed transition metals in a surrogate lung fluid. Atmospheric Environment, 2011, 45, 7555-7562.	4.1	109
15	Quantum Yield of Nitrite from the Photolysis of Aqueous Nitrate above 300 nm. Environmental Science & Technology, 2017, 51, 4387-4395.	10.0	108
16	Aqueous phase photochemical formation of hydrogen peroxide in authentic cloud waters. Journal of Geophysical Research, 1994, 99, 8231.	3.3	107
17	Generation of Hydroxyl Radicals from Ambient Fine Particles in a Surrogate Lung Fluid Solution. Environmental Science & Technology, 2009, 43, 922-927.	10.0	94
18	Temperature and Wavelength Dependence of Nitrite Photolysis in Frozen and Aqueous Solutions. Environmental Science & Technology, 2007, 41, 3626-3632.	10.0	93

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19	Molecular transformations of phenolic SOA during photochemical aging in the aqueous phase: competition among oligomerization, functionalization, and fragmentation. Atmospheric Chemistry and Physics, 2016, 16, 4511-4527.	4.9	92
20	Photochemistry of Nitrous Acid (HONO) and Nitrous Acidium Ion (H₂ONO⁺) in Aqueous Solution and Ice. Environmental Science & Technology, 2009, 43, 1108-1114.	10.0	89
21	Rates of Hydroxyl Radical Production from Transition Metals and Quinones in a Surrogate Lung Fluid. Environmental Science & Technology, 2015, 49, 9317-9325.	10.0	89
22	Photochemistry of phenanthrene, pyrene, and fluoranthene in ice and snow. Atmospheric Environment, 2009, 43, 2252-2259.	4.1	83
23	Quantitative measurements of the generation of hydroxyl radicals by soot particles in a surrogate lung fluid. Atmospheric Environment, 2006, 40, 1043-1052.	4.1	74
24	Phenolic carbonyls undergo rapid aqueous photodegradation to form low-volatility, light-absorbing products. Atmospheric Environment, 2016, 126, 36-44.	4.1	72
25	Processing of atmospheric nitrogen by clouds above a forest environment. Journal of Geophysical Research, 2007, 112, .	3.3	71
26	Formation and Evolution of aqSOA from Aqueous-Phase Reactions of Phenolic Carbonyls: Comparison between Ammonium Sulfate and Ammonium Nitrate Solutions. Environmental Science & Technology, 2018, 52, 9215-9224.	10.0	68
27	A comparison of hydroxyl radical and hydrogen peroxide generation in ambient particle extracts and laboratory metal solutions. Atmospheric Environment, 2012, 46, 665-668.	4.1	61
28	A bias in the â€œmass-normalizedâ€•DTT response â€“ An effect of non-linear concentration-response curves for copper and manganese. Atmospheric Environment, 2016, 144, 325-334.	4.1	58
29	Photoformation of hydroxyl radical and hydrogen peroxide in aerosol particles from Alert, Nunavut: implications for aerosol and snowpack chemistry in the Arctic. Atmospheric Environment, 2004, 38, 1153-1166.	4.1	57
30	Conversion of Fogwater and Aerosol Organic Nitrogen to Ammonium, Nitrate, and NOxduring Exposure to Simulated Sunlight and Ozone. Environmental Science & Technology, 2003, 37, 3522-3530.	10.0	55
31	Photoformation of hydroxyl radical on snow grains at Summit, Greenland. Atmospheric Environment, 2007, 41, 5110-5121.	4.1	55
32	Aqueous benzene-diols react with an organic triplet excited state and hydroxyl radical to form secondary organic aerosol. Physical Chemistry Chemical Physics, 2015, 17, 10227-10237.	2.8	55
33	Combustion-derived flame generated ultrafine soot generates reactive oxygen species and activates Nrf2 antioxidants differently in neonatal and adult rat lungs. Particle and Fibre Toxicology, 2013, 10, 34.	6.2	54
34	Sources and sinks of hydroxyl radical in sea-salt particles. Journal of Geophysical Research, 2007, 112, .	3.3	49
35	Photooxidants from brown carbon and other chromophores in illuminated particle extracts. Atmospheric Chemistry and Physics, 2019, 19, 6579-6594.	4.9	47
36	FT-IR quantification of the carbonyl functional group in aqueous-phase secondary organic aerosol from phenols. Atmospheric Environment, 2015, 100, 230-237.	4.1	45

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37	First Measurements of Organic Triplet Excited States in Atmospheric Waters. Environmental Science & Technology, 2018, 52, 5218-5226.	10.0	45
38	Light penetration in the snowpack at Summit, Greenland: Part 2 Nitrate photolysis. Atmospheric Environment, 2007, 41, 5091-5100.	4.1	44
39	Soluble, light-absorbing species in snow at Barrow, Alaska. Journal of Geophysical Research, 2011, 116, .	3.3	44
40	Chloride and bromide depletions in sea-salt particles over the northeastern Pacific Ocean. Journal of Geophysical Research, 2005, 110, n/a-n/a.	3.3	40
41	Aircraft Measurements of Nitrogen and Phosphorus in and around the Lake Tahoe Basin:â€‰ Implications for Possible Sources of Atmospheric Pollutants to Lake Tahoe. Environmental Science & Technology, 2002, 36, 4981-4989.	10.0	39
42	Light penetration in the snowpack at Summit, Greenland: Part 1. Atmospheric Environment, 2007, 41, 5077-5090.	4.1	38
43	Photosensitized Reactions of a Phenolic Carbonyl from Wood Combustion in the Aqueous Phaseâ€”Chemical Evolution and Light Absorption Properties of AqSOA. Environmental Science & Technology, 2021, 55, 5199-5211.	10.0	36
44	Light absorption by soluble chemical species in Arctic and Antarctic snow. Journal of Geophysical Research, 2007, 112, .	3.3	34
45	Secondary Organic Aerosol from Aqueous Reactions of Green Leaf Volatiles with Organic Triplet Excited States and Singlet Molecular Oxygen. Environmental Science & Technology, 2015, 49, 268-276.	10.0	33
46	Photodestruction of Dissolved Organic Nitrogen Species in Fog Waters. Aerosol Science and Technology, 2000, 32, 106-119.	3.1	32
47	Soluble chromophores in marine snow, seawater, sea ice and frost flowers near Barrow, Alaska. Journal of Geophysical Research, 2012, 117, .	3.3	32
48	Release of gaseous bromine from the photolysis of nitrate and hydrogen peroxide in simulated sea-salt solutions. Atmospheric Environment, 2007, 41, 543-553.	4.1	31
49	Measuring a 10,000-fold enhancement of singlet molecular oxygen (1O2*) concentration on illuminated ice relative to the corresponding liquid solution. Atmospheric Environment, 2013, 75, 188-195.	4.1	29
50	Hydroperoxyl radical (HO2â€¢) oxidizes dibromide radical anion (â€¢Br2â¯) to bromine (Br2) in aqueous solution: Implications for the formation of Br2in the marine boundary layer. Geophysical Research Letters, 2003, 30, .	4.0	28
51	The specific surface area and chemical composition of diamond dust near Barrow, Alaska. Journal of Geophysical Research, 2011, 116, .	3.3	27
52	Aqueous oxidation of green leaf volatiles by hydroxyl radical as a source of SOA: Kinetics and SOA yields. Atmospheric Environment, 2014, 95, 105-112.	4.1	27
53	Direct visualization of solute locations in laboratory ice samples. Cryosphere, 2016, 10, 2057-2068.	3.9	27
54	Nitrate Photochemistry at the Airâ€“Ice Interface and in Other Ice Reservoirs. Environmental Science & Technology, 2018, 52, 5710-5717.	10.0	26

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55	An overview of air-snow exchange at Summit, Greenland: Recent experiments and findings. Atmospheric Environment, 2007, 41, 4995-5006.	4.1	23
56	Determination of halogenated mono-alcohols and diols in water by gas chromatography with electron-capture detection. Journal of Chromatography A, 2000, 866, 65-77.	3.7	22
57	Role of Nitrite in the Photochemical Formation of Radicals in the Snow. Environmental Science & Technology, 2014, 48, 165-172.	10.0	20
58	Kinetics and Mass Yields of Aqueous Secondary Organic Aerosol from Highly Substituted Phenols Reacting with a Triplet Excited State. Environmental Science & Technology, 2021, 55, 5772-5781.	10.0	20
59	Physicochemical properties of iron oxide nanoparticles that contribute to cellular ROS-dependent signaling and acellular production of hydroxyl radical. Free Radical Research, 2016, 50, 1153-1164.	3.3	19
60	Quantum Yields of Nitrite (NO₂^{â€“}) from the Photolysis of Nitrate (NO₃^{â€“}) in Ice at 313 nm. Journal of Physical Chemistry A, 2017, 121, 8474-8483.	2.5	19
61	Photodegradation Rate Constants for Anthracene and Pyrene Are Similar in/on Ice and in Aqueous Solution. Environmental Science & Technology, 2018, 52, 12225-12234.	10.0	18
62	Impact of the Versatile Aerosol Concentration Enrichment System (VACES) on Gas Phase Species. Aerosol Science and Technology, 2010, 44, 1113-1121.	3.1	17
63	Age-Specific Effects on Rat Lung Glutathione and Antioxidant Enzymes after Inhaling Ultrafine Soot. American Journal of Respiratory Cell and Molecular Biology, 2013, 48, 114-124.	2.9	17
64	The photolysis of flash-frozen dilute hydrogen peroxide solutions. Journal of Geophysical Research, 2011, 116, .	3.3	16
65	Degradation of organic pollutants in/on snow and ice by singlet molecular oxygen (¹O*2) and an organic triplet excited state. Environmental Sciences: Processes and Impacts, 2014, 16, 748-756.	3.5	16
66	The effect of cations on NO₂ production from the photolysis of aqueous thin water films of nitrate salts. Physical Chemistry Chemical Physics, 2015, 17, 32211-32218.	2.8	16
67	Photon flux dependence on solute environment in water ices. Environmental Chemistry, 2016, 13, 682.	1.5	16
68	Aqueous reactions of organic triplet excited states with atmospheric alkenes. Atmospheric Chemistry and Physics, 2019, 19, 5021-5032.	4.9	16
69	Airâ€“Water Partitioning of Biomass-Burning Phenols and the Effects of Temperature and Salinity. Environmental Science & Technology, 2020, 54, 3823-3830.	10.0	16
70	Using Singlet Molecular Oxygen to Probe the Solute and Temperature Dependence of Liquid-Like Regions in/on Ice. Journal of Physical Chemistry A, 2013, 117, 6612-6621.	2.5	15
71	Photodecay of guaiacol is faster in ice, and even more rapid on ice, than in aqueous solution. Environmental Sciences: Processes and Impacts, 2020, 22, 1666-1677.	3.5	14
72	Bathochromic Shift in the UVâ€“Visible Absorption Spectra of Phenols at Ice Surfaces: Insights from First-Principles Calculations. Journal of Physical Chemistry A, 2020, 124, 9288-9298.	2.5	14

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73	Aqueous-phase oxidation of green leaf volatiles by hydroxyl radical as a source of SOA: Product identification from methyl jasmonate and methyl salicylate oxidation. Atmospheric Environment, 2015, 102, 43-51.	4.1	11
74	Hydroxyl radical in/on illuminated polar snow: formation rates, lifetimes, and steady-state concentrations. Atmospheric Chemistry and Physics, 2016, 16, 9579-9590.	4.9	9
75	Concentrations of a triplet excited state are enhanced in illuminated ice. Environmental Sciences: Processes and Impacts, 2017, 19, 12-21.	3.5	9
76	Lens-coupled liquid core waveguide for ultraviolet-visible absorption spectroscopy. Review of Scientific Instruments, 2006, 77, 073103.	1.3	7
77	Quantum Yield for the Aqueous Photochemical Degradation of Chlorantraniliprole and Simulation of Its Environmental Fate in a Model California Rice Field. Environmental Toxicology and Chemistry, 2020, 39, 1929-1935.	4.3	7
78	Photochemistry in Terrestrial Ices. Astrophysics and Space Science Library, 2013, , 583-644.	2.7	7
79	Aqueous ^{Â·}OH Oxidation of Highly Substituted Phenols as a Source of Secondary Organic Aerosol. Environmental Science & Technology, 2022, 56, 9959-9967.	10.0	7
80	Enhanced photodegradation of dimethoxybenzene isomers in/on ice compared to in aqueous solution. Atmospheric Chemistry and Physics, 2022, 22, 5943-5959.	4.9	5
81	Aqueous Photolysis of Benzobicyclon Hydrolysate. Journal of Agricultural and Food Chemistry, 2018, 66, 5462-5472.	5.2	4
82	Formation of hydrogen peroxide from illuminated polar snows and frozen solutions of model compounds. Atmospheric Environment, 2012, 55, 127-134.	4.1	2
83	Modeling the influence of photochemistry on hydrogen peroxide concentrations in an Arctic snowpack. Geophysical Research Letters, 2013, 40, 2694-2698.	4.0	2