Parisa A Ariya

List of Publications by Year
in descending order

99 papers	4,407 citations	94433 37 h-index	123424 61 g-index
102 all docs	102 docs citations	102 times ranked	4197 citing authors

#	Article	IF	Citations
1	Mercury Physicochemical and Biogeochemical Transformation in the Atmosphere and at Atmospheric Interfaces: A Review and Future Directions. Chemical Reviews, 2015, 115, 3760-3802.	47.7	323
2	Reactions of Gaseous Mercury with Atomic and Molecular Halogens:Â Kinetics, Product Studies, and Atmospheric Implications. Journal of Physical Chemistry A, 2002, 106, 7310-7320.	2.5	258
3	New Directions: The role of bioaerosols in atmospheric chemistry and physics. Atmospheric Environment, 2004, 38, 1231-1232.	4.1	150
4	A review of uncertainties in atmospheric modeling of mercury chemistry I. Uncertainties in existing kinetic parameters â€" Fundamental limitations and the importance of heterogeneous chemistry. Atmospheric Environment, 2011, 45, 5664-5676.	4.1	150
5	Studies of ozone initiated reactions of gaseous mercury: kinetics, product studies, and atmospheric implications. Physical Chemistry Chemical Physics, 2004, 6, 572.	2.8	149
6	The Arctic: a sink for mercury. Tellus, Series B: Chemical and Physical Meteorology, 2004, 56, 397-403.	1.6	144
7	Gas-Phase HOâ€¢-Initiated Reactions of Elemental Mercury:Â Kinetics, Product Studies, and Atmospheric Implications. Environmental Science & Technology, 2004, 38, 5555-5566.	10.0	143
8	A theoretical study of the reactions of parent and substituted Criegee intermediates with water and the water dimer. Physical Chemistry Chemical Physics, 2004, 6, 5042.	2.8	142
9	Inhaled Pollutants: The Molecular Scene behind Respiratory and Systemic Diseases Associated with Ultrafine Particulate Matter. International Journal of Molecular Sciences, 2017, 18, 243.	4.1	122
10	The Arctic: a sink for mercury. Tellus, Series B: Chemical and Physical Meteorology, 2022, 56, 397.	1.6	103
11	Microbiological degradation of atmospheric organic compounds. Geophysical Research Letters, 2002, 29, 34-1-34-4.	4.0	100
12	A review of the sources of uncertainties in atmospheric mercury modeling II. Mercury surface and heterogeneous chemistry â€" A missing link. Atmospheric Environment, 2012, 46, 1-10.	4.1	100
13	Redox transformations of mercury in an Arctic snowpack at springtime. Atmospheric Environment, 2004, 38, 6763-6774.	4.1	91
14	A Theoretical Study on the Reactions of Hg with Halogens:Â Atmospheric Implications. Journal of Physical Chemistry A, 2003, 107, 6360-6365.	2.5	88
15	Potential for Mercury Reduction by Microbes in the High Arctic. Applied and Environmental Microbiology, 2007, 73, 2230-2238.	3.1	88
16	Modeling Dynamic Exchange of Gaseous Elemental Mercury at Polar Sunrise. Environmental Science & Technology, 2008, 42, 5183-5188.	10.0	84
17	The importance of water clusters (H2O)n (n=2,â€¦,4) in the reaction of Criegee intermediate with water in the atmosphere. Chemical Physics Letters, 2006, 419, 479-485.	2.6	73
18	Product Study of the Gas-Phase BrO-Initiated Oxidation of Hg0:Â Evidence for Stable Hg1+Compounds. Environmental Science & Technology, 2004, 38, 4319-4326.	10.0	72

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19	Reduction of Oxidized Mercury Species by Dicarboxylic Acids (C₂âˆ’C₄): Kinetic and Product Studies. Environmental Science & Technology, 2008, 42, 5150-5155.	10.0	71
20	Competing reactions of selected atmospheric gases on Fe₃O₄nanoparticles surfaces. Physical Chemistry Chemical Physics, 2014, 16, 23056-23066.	2.8	69
21	A theoretical study of the reactions of carbonyl oxide with water in atmosphere: the role of water dimer. Chemical Physics Letters, 2003, 367, 423-429.	2.6	64
22	Temperature-dependent kinetic study for ozonolysis of selected tropospheric alkenes. International Journal of Chemical Kinetics, 2002, 34, 678-684.	1.6	62
23	Fe₃O₄ Nanoparticles and Carboxymethyl Cellulose: A Green Option for the Removal of Atmospheric Benzene, Toluene, Ethylbenzene, and <i>o</i>-Xylene (BTEX). Industrial & Engineering Chemistry Research, 2012, 51, 12787-12795.	3.7	59
24	E-Wastes: Bridging the Knowledge Gaps in Global Production Budgets, Composition, Recycling and Sustainability Implications. Sustainable Chemistry, 2020, 1, 154-182.	4.7	59
25	Atmospheric mercury in the Canadian Arctic. Part I: A review of recent field measurements. Science of the Total Environment, 2015, 509-510, 3-15.	8.0	58
26	Oxidation of Oleic Acid and Oleic Acid/Sodium Chloride(aq) Mixture Droplets with Ozone:Â Changes of Hygroscopicity and Role of Secondary Reactions. Journal of Physical Chemistry A, 2007, 111, 620-632.	2.5	56
27	Microbial and â€œde novoâ€•transformation of dicarboxylic acids by three airborne fungi. Science of the Total Environment, 2008, 390, 530-537.	8.0	55
28	Mercury distribution, partitioning and speciation in coastal vs. inland High Arctic snow. Geochimica Et Cosmochimica Acta, 2007, 71, 3419-3431.	3.9	53
29	Ice Nucleation of Model Nanoplastics and Microplastics: A Novel Synthetic Protocol and the Influence of Particle Capping at Diverse Atmospheric Environments. ACS Earth and Space Chemistry, 2019, 3, 1729-1739.	2.7	53
30	Kinetics of the gas-phase reactions of Cl atom with selected C2-C5 unsaturated hydrocarbons at 283 <T < 323 K. International Journal of Chemical Kinetics, 2000, 32, 478-484.	1.6	52
31	Significance of HOxand peroxides production due to alkene ozonolysis during fall and winter: A modeling study. Journal of Geophysical Research, 2000, 105, 17721-17738.	3.3	49
32	Carbonaceous species and humic like substances (HULIS) in Arctic snowpack during OASIS field campaign in Barrow. Journal of Geophysical Research, 2012, 117, .	3.3	49
33	Biological and Chemical Redox Transformations of Mercury in Fresh and Salt Waters of the High Arctic during Spring and Summer. Environmental Science & Technology, 2007, 41, 1883-1888.	10.0	48
34	Newly desertified regions in Iraq and its surrounding areas: Significant novel sources of global dust particles. Journal of Arid Environments, 2015, 116, 1-10.	2.4	46
35	Ice nucleation activity of bacteria isolated from snow compared with organic and inorganic substrates. Environmental Chemistry, 2008, 5, 373.	1.5	45
36	Radiation enhanced uptake of Hg0(g) on iron (oxyhydr)oxide nanoparticles. RSC Advances, 2017, 7, 45010-45021.	3.6	44

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37	Photo-catalytic oxidation reaction of gaseous mercury over titanium dioxide nanoparticle surfaces. Chemical Physics Letters, 2010, 491, 23-28.	2.6	41
38	Determination of acetone in seawater using derivatization solid-phase microextraction. Analytical and Bioanalytical Chemistry, 2007, 388, 1275-1282.	3.7	39
39	A new inventory for middle east dust source points. Environmental Monitoring and Assessment, 2015, 187, 582.	2.7	39
40	Effects of relative humidity and CO(g) on the O3-initiated oxidation reaction of Hg0(g): kinetic & product studies. Physical Chemistry Chemical Physics, 2008, 10, 5616.	2.8	37
41	Recent Advances in Atmospheric Chemistry of Mercury. Atmosphere, 2018, 9, 76.	2.3	35
42	Influence of Al(III) and Sb(V) on the transformation of ferrihydrite nanoparticles: Interaction among ferrihydrite, coprecipitated Al(III) and Sb(V). Journal of Hazardous Materials, 2021, 408, 124423.	12.4	34
43	Physicochemical studies of aerosols at Montreal Trudeau Airport: The importance of airborne nanoparticles containing metal contaminants. Environmental Pollution, 2019, 246, 734-744.	7.5	32
44	Diel variations in photoinduced oxidation of Hg0 in freshwater. Chemosphere, 2005, 59, 977-981.	8.2	31
45	Determination of a wide range of volatile and semivolatile organic compounds in snow by use of solid-phase micro-extraction (SPME). Analytical and Bioanalytical Chemistry, 2006, 385, 57-66.	3.7	31
46	Air quality standards for the concentration of particulate matter 2.5, global descriptive analysis. Bulletin of the World Health Organization, 2021, 99, 125-137D.	3.3	31
47	Gaseous Elemental Mercury in the Ambient Atmosphere: Review of the Application of Theoretical Calculations and Experimental Studies for Determination of Reaction Coefficients and Mechanisms with Halogens and Other Reactants. Advances in Quantum Chemistry, 2008, , 43-55.	0.8	30
48	Degradation of Dicarboxylic Acids (C2â^'C9) upon Liquid-Phase Reactions with O3and Its Atmospheric Implications. Environmental Science & Technology, 2002, 36, 3265-3269.	10.0	29
49	Snowâ€borne nanosized particles: Abundance, distribution, composition, and significance in ice nucleation processes. Journal of Geophysical Research D: Atmospheres, 2015, 120, 11,760.	3.3	29
50	Photochemical reactions of divalent mercury with thioglycolic acid: Formation of mercuric sulfide particles. Chemosphere, 2015, 119, 467-472.	8.2	28
51	Role of snow in the fate of gaseous and particulate exhaust pollutants from gasoline-powered vehicles. Environmental Pollution, 2017, 223, 665-675.	7.5	28
52	Development of a Particle-Trap Preconcentration-Soft Ionization Mass Spectrometric Technique for the Quantification of Mercury Halides in Air. Analytical Chemistry, 2015, 87, 5109-5116.	6.5	27
53	Co-adsorption of gaseous benzene, toluene, ethylbenzene, m-xylene (BTEX) and SO2 on recyclable Fe3O4 nanoparticles at 0â€"101% relative humidities. Journal of Environmental Sciences, 2015, 31, 164-174.	6.1	26
54	Advances in Ultra-Trace Analytical Capability for Micro/Nanoplastics and Water-Soluble Polymers in the Environment: Fresh Falling Urban Snow. Environmental Pollution, 2021, 276, 116698.	7.5	25

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55	Title is missing!. Journal of Atmospheric Chemistry, 1999, 34, 55-64.	3.2	23
56	Kinetics of the gas-phase reaction of atomic chlorine with selected monoterpenes. Physical Chemistry Chemical Physics, 2001, 3, 3981-3986.	2.8	22
57	Mercury chemical transformations in the gas, aqueous and heterogeneous phases: state-of-the-art science and uncertainties. , 2009, , 459-501.		22
58	Reaction of gaseous mercury with molecular iodine, atomic iodine, and iodine oxide radicals â€" Kinetics, product studies, and atmospheric implications. Canadian Journal of Chemistry, 2008, 86, 811-820.	1.1	20
59	Development of a Green Technology for Mercury Recycling from Spent Compact Fluorescent Lamps Using Iron Oxides Nanoparticles and Electrochemistry. ACS Sustainable Chemistry and Engineering, 2016, 4, 2150-2157.	6.7	20
60	Do snow and ice alter urban air quality?. Atmospheric Environment, 2018, 186, 266-268.	4.1	20
61	Development of a Recyclable Remediation System for Gaseous BTEX: Combination of Iron Oxides Nanoparticles Adsorbents and Electrochemistry. ACS Sustainable Chemistry and Engineering, 2014, 2, 2739-2747.	6.7	18
62	Novel Technology for the Removal of Brilliant Green from Water: Influence of Post-Oxidation, Environmental Conditions, and Capping. ACS Omega, 2019, 4, 12107-12120.	3.5	18
63	Measurements of non-methane hydrocarbons, DOC in surface ocean waters and aerosols over the Nordic seas during polarstern cruise ARK-XX/1 (2004). Chemosphere, 2007, 69, 1474-1484.	8.2	15
64	Mystery of ice multiplication in warmâ€based precipitating shallow cumulus clouds. Geophysical Research Letters, 2010, 37, .	4.0	15
65	Aqueous photoreduction of oxidized mercury species in presence of selected alkanethiols. Chemosphere, 2011, 84, 1079-1084.	8.2	15
66	Volatile organic compounds in Arctic snow: concentrations and implications for atmospheric processes. Environmental Sciences: Processes and Impacts, 2014, 16, 2592-2603.	3.5	15
67	Role of snow and cold environment in the fate and effects of nanoparticles and select organic pollutants from gasoline engine exhaust. Environmental Sciences: Processes and Impacts, 2016, 18, 190-199.	3.5	14
68	Purely Inorganic Highly Efficient Ice Nucleating Particle. ACS Omega, 2018, 3, 3384-3395.	3.5	14
69	Enhanced Reactivity toward Oxidation by Water Vapor: Interactions of Toluene and NO2 on Hydrated Magnetite Nanoparticles. Journal of Physical Chemistry C, 2014, 118, 23654-23663.	3.1	13
70	Fast, Cost-effective and Energy Efficient Mercury Removal-Recycling Technology. Scientific Reports, 2018, 8, 16255.	3.3	13
71	Athabasca oil sands region snow contains efficient micron and nano-sized ice nucleating particles. Environmental Pollution, 2019, 252, 289-295.	7.5	13
72	The Existence of Airborne Mercury Nanoparticles. Scientific Reports, 2019, 9, 10733.	3.3	12

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73	A method for the simultaneous quantification of 23 C1â€“C9 trace aldehydes and ketones in seawater. Environmental Chemistry, 2011, 8, 441.	1.5	11
74	Development of a hybrid photo-bioreactor and nanoparticle adsorbent system for the removal of CO2, and selected organic and metal co-pollutants. Journal of Environmental Sciences, 2017, 57, 41-53.	6.1	11
75	Diversity of metals and metal-interactive bacterial populations in different types of Arctic snow and frost flowers: Implications on snow freeze-melt processes in a changing climate. Science of the Total Environment, 2019, 690, 277-289.	8.0	11
76	Supercritical fluid extraction followed by supramolecular solvent microextraction as a fast and efficient preconcentration method for determination of polycyclic aromatic hydrocarbons in apple peels. Journal of Separation Science, 2020, 43, 1154-1163.	2.5	10
77	Kinetic and Product Studies of the Reactions of NO2, with Hg0 in the Gas Phase in the Presence of Titania Micro-Particle Surfaces. Water, Air, and Soil Pollution, 2012, 223, 4397-4406.	2.4	9
78	Novel aerosol analysis approach for characterization of nanoparticulate matter in snow. Environmental Science and Pollution Research, 2017, 24, 4480-4493.	5.3	9
79	Influence of Environmentally Relevant Physicochemical Conditions on a Highly Efficient Inorganic Ice Nucleating Particle. Journal of Physical Chemistry C, 2018, 122, 18690-18704.	3.1	9
80	The Kinetics of Aqueous Mercury(II) Reduction by Sulfite Over an Array of Environmental Conditions. Water, Air, and Soil Pollution, 2015, 226, 1.	2.4	8
81	Natural Kaolin: Sustainable Technology for the Instantaneous and Energyâ€Neutral Recycling of Anthropogenic Mercury Emissions. ChemSusChem, 2020, 13, 165-172.	6.8	8
82	Aerosols in an urban cold climate: Physical and chemical characteristics of nanoparticles. Urban Climate, 2020, 34, 100713.	5.7	8
83	A surface second harmonic generation investigation of volatile organic compound adsorption on a liquid mercury surface. RSC Advances, 2015, 5, 23464-23470.	3.6	7
84	Anthropogenic Photolabile Chlorine in the Cold-Climate City of Montreal. Atmosphere, 2020, 11, 812.	2.3	6
85	Advancing the science of dynamic airborne nanosized particles using Nano-DIHM. Communications Chemistry, 2021, 4, .	4.5	6
86	Stability of XSO2 (X=F, Cl, and Br) radical: impact of the basis set on Xâ€“S bonding energy in ab initio and DFT calculations. Chemical Physics Letters, 2001, 350, 173-180.	2.6	5
87	Mid-latitude mercury loss. Nature Geoscience, 2011, 4, 14-15.	12.9	5
88	The gasâ€phase ozonolysis reaction of methylbutenol: A mechanistic study. International Journal of Quantum Chemistry, 2019, 119, e25888.	2.0	5
89	Chemical Transformation of Gaseous Elemental Hg in the Atmosphere. , 2005, , 261-294.		4
90	Development of methodology to generate, measure, and characterize the chemical composition of oxidized mercury nanoparticles. Analytical and Bioanalytical Chemistry, 2020, 412, 691-702.	3.7	4

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91	Simultaneous extraction and fractionation of petroleum biomarkers from tar balls and crude oils using a two-step sequential supercritical fluid extraction. Marine Pollution Bulletin, 2020, 159, 111484.	5.0	4
92	Organic Sorbents for Air Purification: A New Application for Recyclable Hyper-Cross-Linked Polystyrene. Industrial & Engineering Chemistry Research, 2021, 60, 3969-3980.	3.7	4
93	PM2.5 decadal data in cold vs. mild climate airports: COVID-19 era and a call for sustainable air quality policy. Environmental Science and Pollution Research, 2022, 29, 58133-58148.	5.3	4
94	Exposure to nanoscale and microscale particulate air pollution prior to mining development near a northern indigenous community in QuÃ©bec, Canada. Environmental Science and Pollution Research, 2018, 25, 8976-8988.	5.3	3
95	Interaction of Air Pollution with Snow and Seasonality Effects. Atmosphere, 2021, 12, 490.	2.3	3
96	Black Carbon Particles Physicochemical realâ€time dataset in a Cold City: Trends of Fallâ€Winter BC Accumulation and COVIDâ€19. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD035265.	3.3	3
97	The impact of chemical aging on ice nucleating abilities of iron oxide nanoparticles in the atmosphere. , 2013, , .		2
98	Kinetics of the gasâ€phase reactions of Cl atom with selected C2â€“C5 unsaturated hydrocarbons at 283 < T < 323 K. International Journal of Chemical Kinetics, 2000, 32, 478-484.	1.6	1
99	Insights on Pb(<scp>ii</scp>) retention and immobilization by ferrihydrite in the presence of Al(<scp>iii</scp>) and oxalic acid. Environmental Science: Nano, 0, , .	4.3	0