X-Y Yu

List of Publications by Year
in descending order

114 papers	3,811 citations	109264 35 h-index	149623 56 g-index
125 all docs	125 docs citations	125 times ranked	4326 citing authors

#	Article	IF	Citations
1	Free Radical Reactions Involving Clâ€¢, Cl2-â€¢, and SO4-â€¢ in the 248 nm Photolysis of Aqueous Solutions Containing S2O82- and Cl-. Journal of Physical Chemistry A, 2004, 108, 295-308.	1.1	300
2	Hydrogen Peroxide Photolysis in Acidic Aqueous Solutions Containing Chloride Ions. I. Chemical Mechanism. Journal of Physical Chemistry A, 2003, 107, 1313-1324.	1.1	146
3	Evaluating simulated primary anthropogenic and biomass burning organic aerosols during MILAGRO: implications for assessing treatments of secondary organic aerosols. Atmospheric Chemistry and Physics, 2009, 9, 6191-6215.	1.9	138
4	The T1-T2 study: evolution of aerosol properties downwind of Mexico City. Atmospheric Chemistry and Physics, 2007, 7, 1585-1598.	1.9	124
5	Heavy metal behaviour at mineral-organo interfaces: Mechanisms, modelling and influence factors. Environment International, 2019, 131, 104995.	4.8	123
6	Emission and chemistry of organic carbon in the gas and aerosol phase at a sub-urban site near Mexico City in March 2006 during the MILAGRO study. Atmospheric Chemistry and Physics, 2009, 9, 3425-3442.	1.9	114
7	Paperâ€Based Electrochemical Biosensors: From Test Strips to Paperâ€Based Microfluidics. Electroanalysis, 2014, 26, 1214-1223.	1.5	107
8	Characterization of the Sunset Semi-Continuous Carbon Aerosol Analyzer. Journal of the Air and Waste Management Association, 2009, 59, 826-833.	0.9	106
9	Effect of hydrophobic primary organic aerosols on secondary organic aerosol formation from ozonolysis of Î±â€pinene. Geophysical Research Letters, 2007, 34, .	1.5	104
10	Single particle characterization using a light scattering module coupled to a time-of-flight aerosol mass spectrometer. Atmospheric Chemistry and Physics, 2009, 9, 7769-7793.	1.9	98
11	Overview of the 2010 Carbonaceous Aerosols and Radiative Effects Study (CARES). Atmospheric Chemistry and Physics, 2012, 12, 7647-7687.	1.9	94
12	Loss of fine particle ammonium from denuded nylon filters. Atmospheric Environment, 2006, 40, 4797-4807.	1.9	89
13	Observations of fine and coarse particle nitrate at several rural locations in the United States. Atmospheric Environment, 2008, 42, 2720-2732.	1.9	88
14	Fog chemistry in the Texasâ€“Louisiana Gulf Coast corridor. Atmospheric Environment, 2008, 42, 2048-2061.	1.9	88
15	Critical Evaluation of Rate Constants and Equilibrium Constants of Hydrogen Peroxide Photolysis in Acidic Aqueous Solutions Containing Chloride Ions. Journal of Physical and Chemical Reference Data, 2004, 33, 747-763.	1.9	85
16	Recent developments in the synthesis, properties, and biomedical applications of core/shell superparamagnetic iron oxide nanoparticles with gold. Biomaterials Science, 2017, 5, 2212-2225.	2.6	81
17	Probing liquid surfaces under vacuum using SEM and ToF-SIMS. Lab on A Chip, 2011, 11, 2481.	3.1	80
18	Hydrogen Peroxide Photolysis in Acidic Aqueous Solutions Containing Chloride Ions. II. Quantum Yield of HOâ€¢(Aq) Radicals. Journal of Physical Chemistry A, 2003, 107, 1325-1332.	1.1	77

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19	In Situ Molecular Imaging of the Biofilm and Its Matrix. Analytical Chemistry, 2016, 88, 11244-11252.	3.2	76
20	Primary and secondary organic carbon downwind of Mexico City. Atmospheric Chemistry and Physics, 2009, 9, 6793-6814.	1.9	72
21	Making a hybrid microfluidic platform compatible for in situ imaging by vacuum-based techniques. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2011, 29, .	0.9	67
22	In situ chemical probing of the electrodeâ€“electrolyte interface by ToF-SIMS. Lab on A Chip, 2014, 14, 855-859.	3.1	61
23	Aerosol mixing state, hygroscopic growth and cloud activation efficiency during MIRAGE 2006. Atmospheric Chemistry and Physics, 2013, 13, 5049-5062.	1.9	60
24	Spectro-microscopic measurements of carbonaceous aerosol aging in Central California. Atmospheric Chemistry and Physics, 2013, 13, 10445-10459.	1.9	56
25	Measurements of submicron aerosols in Houston, Texas during the 2009 SHARP field campaign. Journal of Geophysical Research D: Atmospheres, 2013, 118, 10,518.	1.2	56
26	Chemical imaging of ambient aerosol particles: Observational constraints on mixing state parameterization. Journal of Geophysical Research D: Atmospheres, 2015, 120, 9591-9605.	1.2	49
27	Chemical imaging of molecular changes in a hydrated single cell by dynamic secondary ion mass spectrometry and super-resolution microscopy. Integrative Biology (United Kingdom), 2016, 8, 635-644.	0.6	48
28	Sailing into uncharted waters: recent advances in the in situ monitoring of catalytic processes in aqueous environments. Catalysis Science and Technology, 2015, 5, 3035-3060.	2.1	47
29	In Situ Mass Spectrometric Monitoring of the Dynamic Electrochemical Process at the Electrodeâ€“Electrolyte Interface: a SIMS Approach. Analytical Chemistry, 2017, 89, 960-965.	3.2	47
30	Improving the Molecular Ion Signal Intensity for In Situ Liquid SIMS Analysis. Journal of the American Society for Mass Spectrometry, 2016, 27, 2006-2013.	1.2	46
31	In situ molecular imaging of a hydrated biofilm in a microfluidic reactor by ToF-SIMS. Analyst, The, 2014, 139, 1609-1613.	1.7	45
32	Capturing the transient species at the electrodeâ€“electrolyte interface by in situ dynamic molecular imaging. Chemical Communications, 2016, 52, 10952-10955.	2.2	43
33	Particulate Nitrate Measurement Using Nylon Filters. Journal of the Air and Waste Management Association, 2005, 55, 1100-1110.	0.9	42
34	Molecular investigation on the binding of Cd(II) by the binary mixtures of montmorillonite with two bacterial species. Environmental Pollution, 2017, 229, 871-878.	3.7	40
35	Semi-continuous measurement of PM2.5 ionic composition at several rural locations in the United States. Atmospheric Environment, 2008, 42, 6655-6669.	1.9	39
36	Effects of humic acid on the interactions between zinc oxide nanoparticles and bacterial biofilms. Environmental Pollution, 2017, 231, 1104-1111.	3.7	39

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37	Two-dimensional and three-dimensional dynamic imaging of live biofilms in a microchannel by time-of-flight secondary ion mass spectrometry. Biomicrofluidics, 2015, 9, 031101.	1.2	36
38	Imaging liquids using microfluidic cells. Microfluidics and Nanofluidics, 2013, 15, 725-744.	1.0	34
39	Secondary ion mass spectrometry: The application in the analysis of atmospheric particulate matter. Analytica Chimica Acta, 2017, 989, 1-14.	2.6	34
40	Modeling of Cd adsorption to goethite-bacteria composites. Chemosphere, 2018, 193, 943-950.	4.2	31
41	Performance of a microfluidic device for in situ ToF-SIMS analysis of selected organic molecules at aqueous surfaces. Analytical Methods, 2013, 5, 2515.	1.3	30
42	Deciphering the aqueous chemistry of glyoxal oxidation with hydrogen peroxide using molecular imaging. Physical Chemistry Chemical Physics, 2017, 19, 20357-20366.	1.3	29
43	In situ nuclear magnetic resonance microimaging of live biofilms in a microchannel. Analyst, The, 2017, 142, 2363-2371.	1.7	29
44	Does interfacial photochemistry play a role in the photolysis of pyruvic acid in water?. Atmospheric Environment, 2018, 191, 36-45.	1.9	28
45	Evolution of aqSOA from the Airâ€“Liquid Interfacial Photochemistry of Glyoxal and Hydroxyl Radicals. Environmental Science & Technology, 2019, 53, 10236-10245.	4.6	28
46	Fast In Situ Airborne Measurement of Ammonia Using a Mid-Infrared Off-Axis ICOS Spectrometer. Environmental Science & Technology, 2013, 47, 130823150605002.	4.6	26
47	Metabolism, survival, and gene expression ofPseudomonas putidato hematite nanoparticles mediated by surface-bound humic acid. Environmental Science: Nano, 2018, 5, 682-695.	2.2	26
48	In situ SEM and ToFâ€SIMS analysis of IgG conjugated gold nanoparticles at aqueous surfaces. Surface and Interface Analysis, 2014, 46, 224-228.	0.8	24
49	Characterization of syntrophic Geobacter communities using ToF-SIMS. Biointerphases, 2017, 12, 05G601.	0.6	23
50	Two coexisting liquid phases in switchable ionic liquids. Physical Chemistry Chemical Physics, 2017, 19, 22627-22632.	1.3	23
51	Molecular evidence of a toxic effect on a biofilm and its matrix. Analyst, The, 2019, 144, 2498-2503.	1.7	23
52	The influence of fog and airmass history on aerosol optical, physical and chemical properties at Pt. Reyes National Seashore. Atmospheric Environment, 2011, 45, 2559-2568.	1.9	19
53	<scp>ToFâ€SIMS</scp> characterization of glyoxal surface oxidation products by hydrogen peroxide: A comparison between dry and liquid samples. Surface and Interface Analysis, 2018, 50, 927-938.	0.8	19
54	Mesoscopic Structure Facilitates Rapid CO₂ Transport and Reactivity in CO₂ Capture Solvents. Journal of Physical Chemistry Letters, 2018, 9, 5765-5771.	2.1	19

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55	Dark airâ€“liquid interfacial chemistry of glyoxal and hydrogen peroxide. Npj Climate and Atmospheric Science, 2019, 2, .	2.6	18
56	Superparamagnetic CoFe2O4@Au with High Specific Absorption Rate and Intrinsic Loss Power for Magnetic Fluid Hyperthermia Applications. Acta Metallurgica Sinica (English Letters), 2019, 32, 719-725.	1.5	18
57	Correlative surface imaging reveals chemical signatures for bacterial hotspots on plant roots. Analyst, The, 2020, 145, 393-401.	1.7	15
58	Ionic strength dependence of the oxidation of SO2 by H2O2 in sodium chloride particles. Atmospheric Environment, 2014, 89, 731-738.	1.9	13
59	In Situ Characterization of Hydrated Proteins in Water by SALVI and ToF-SIMS. Journal of Visualized Experiments, 2016, , 53708.	0.2	13
60	An investigation of the beam damage effect on in situ liquid secondary ion mass spectrometry analysis. Rapid Communications in Mass Spectrometry, 2017, 31, 2035-2042.	0.7	13
61	Improving in situ liquid SEM imaging of particles. Surface and Interface Analysis, 2019, 51, 1325-1331.	0.8	12
62	In situ, in vivo, and in operando imaging and spectroscopy of liquids using microfluidics in vacuum. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, .	0.9	12
63	Analysis of anions in ambient aerosols by microchip capillary electrophoresis. Analyst, The, 2006, 131, 1226.	1.7	11
64	Magneto-structural and induction heating properties of MFe2O4 (Mâ€‰=â€‰Co, Mn, Zn) MNPs for magnetic particle hyperthermia application. SN Applied Sciences, 2020, 2, 1.	1.5	11
65	Understanding Time Dependence on Zinc Metalâ€“Organic Framework Growth Using in Situ Liquid Secondary Ion Mass Spectrometry. ACS Applied Materials & Interfaces, 2020, 12, 5090-5098.	4.0	10
66	In situ molecular imaging of adsorbed protein films in water indicating hydrophobicity and hydrophilicity. Scientific Reports, 2020, 10, 3695.	1.6	10
67	Surface evolution of synthetic bilgewater emulsion. Chemosphere, 2019, 236, 124345.	4.2	9
68	Molecular imaging of plantâ€“microbe interactions on the Brachypodium seed surface. Analyst, The, 2021, 146, 5855-5865.	1.7	9
69	New Insights into Secondary Organic Aerosol Formation at the Airâ€“Liquid Interface. Journal of Physical Chemistry Letters, 2021, 12, 324-329.	2.1	9
70	The interfacial compatibility between a potential CO2 separation membrane and capture solvents. Carbon Capture Science & Technology, 2022, 2, 100037.	4.9	9
71	Imaging mass spectrometry tackles interfacial challenges in electrochemistry. Current Opinion in Electrochemistry, 2017, 6, 53-59.	2.5	8
72	Atmospheric particulate characterization by ToF-SIMS in an urban site in Beijing. Atmospheric Environment, 2020, 220, 117090.	1.9	8

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73	Liquid ToF-SIMS revealing the oil, water, and surfactant interface evolution. Physical Chemistry Chemical Physics, 2020, 22, 11771-11782.	1.3	8
74	Peak selection matters in principal component analysis: A case study of syntrophic microbes. Biointerphases, 2019, 14, 051004.	0.6	7
75	Assessing the impacts of dynamic soft-templates innate to switchable ionic liquids on nanoparticulate green rust crystalline structures. Chemical Communications, 2019, 55, 11239-11242.	2.2	7
76	Stamping Nanoparticles onto the Electrode for Rapid Electrochemical Analysis in Microfluidics. Micromachines, 2021, 12, 60.	1.4	7
77	Enhancing the chemical mixture methodology in emergency preparedness and consequence assessment analysis. Toxicology, 2013, 313, 174-184.	2.0	6
78	Enabling liquid vapor analysis using synchrotron VUV single photon ionization mass spectrometry with a microfluidic interface. Review of Scientific Instruments, 2018, 89, 115105.	0.6	6
79	In Vivo Molecular Insights into Syntrophic Geobacter Aggregates. Analytical Chemistry, 2020, 92, 10402-10411.	3.2	6
80	The development and application of the chemical mixture methodology in analysis of potential health impacts from airborne release in emergencies. Journal of Applied Toxicology, 2010, 30, 513-524.	1.4	5
81	In-situ monitoring of trace gases in a nonâ€“urban environment. Atmospheric Pollution Research, 2011, 2, 89-98.	1.8	5
82	Switchable 1,8-diazabicycloundec-7-ene and 1-hexanol ionic liquid analyzed by liquid ToF-SIMS. Surface Science Spectra, 2016, 23, 9-28.	0.3	5
83	Enabling liquid solvent structure analysis using hard x-ray absorption spectroscopy with a transferrable microfluidic reactor. Journal of Physics Condensed Matter, 2018, 30, 18LT01.	0.7	5
84	In Situ Characterization of Shewanella oneidensis MR1 Biofilms by SALVI and ToF-SIMS. Journal of Visualized Experiments, 2017, , .	0.2	4
85	Microfluidics and Interfacial Chemistry in the Atmosphere. , 2018, , 245-270.		4
86	In situ liquid SIMS analysis of uranium oxide. Surface and Interface Analysis, 2020, 52, 454-459.	0.8	4
87	Evidence of lithium mobility under neutron irradiation. Journal of Materials Research and Technology, 2021, 14, 475-483.	2.6	4
88	Measurements of Carbonaceous Aerosols Using Semi-Continuous Thermal-Optical Method. , 2011, , .		3
89	Modeling and Qualification of a Modified Emission Unit for Radioactive Air Emissions Stack Sampling Compliance. Health Physics, 2016, 111, 432-441.	0.3	3
90	ToFâ€SIMS analysis of chemical composition of atmospheric aerosols in Beijing. Surface and Interface Analysis, 2020, 52, 272-282.	0.8	3

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91	Revealing the Structural Evolution of Green Rust Synthesized in Ionic Liquids by In Situ Molecular Imaging. Advanced Materials Interfaces, 2020, 7, 2000452.	1.9	3
92	In situ liquid SEM imaging analysis revealing particle dispersity in aqueous solutions. Journal of Microscopy, 2020, 279, 79-84.	0.8	3
93	Probing sulphur clusters in a microfluidic electrochemical cell with synchrotron-based photoionization mass spectrometry. Physical Chemistry Chemical Physics, 2020, 22, 14449-14453.	1.3	3
94	Studying Corrosion Using Miniaturized Particle Attached Working Electrodes and the Nafion Membrane. Micromachines, 2021, 12, 1414.	1.4	3
95	Mass spectral imaging showing the plant growth-promoting rhizobacteria's effect on the Brachypodium awn. Biointerphases, 2022, 17, .	0.6	3
96	Free Radical Reactions Involving ClÃ—, and Cl2-Ã—, and SO4-Ã— in the 248 nm Photolysis of Aqueous Solutions Containing S2O82- and Cl-.. ChemInform, 2004, 35, no.	0.1	2
97	In Situ Characterization of Boehmite Particles in Water Using Liquid SEM. Journal of Visualized Experiments, 2017, , .	0.2	2
98	Modeling filtered building effluent stack sampling points for qualification criteria. Progress in Nuclear Energy, 2020, 124, 103338.	1.3	2
99	Big Data Analytics for Long-Term Meteorological Observations at Hanford Site. Atmosphere, 2022, 13, 136.	1.0	2
100	Evaluation of nitrous oxide as a substitute for sulfur hexafluoride to reduce global warming impacts of ANSI/HPS N13.1 gaseous uniformity testing. Atmospheric Environment, 2018, 176, 40-46.	1.9	1
101	Foreword to special section on â€œNear Ambient and Synchrotron Surface Analysis (NAXPS)â€• Surface and Interface Analysis, 2018, 50, 911-912.	0.8	1
102	Studying Interfacial Dark Reactions of Glyoxal and Hydrogen Peroxide Using Vacuum Ultraviolet Single Photon Ionization Mass Spectrometry. Atmosphere, 2021, 12, 338.	1.0	1
103	Theoretical Analyses of Aerosol Aging on a Substrate without Wall-Effects by a Cross-Flow. The Open Atmospheric Science Journal, 2011, 5, 106-113.	0.5	1
104	Interfacial Dark Aging Is an Overlooked Source of Aqueous Secondary Organic Aerosol. Atmosphere, 2022, 13, 188.	1.0	1
105	Fast time-resolved aerosol collector: proof of concept. Atmospheric Measurement Techniques, 2010, 3, 1377-1384.	1.2	0
106	Corrigendum to "Spectro-microscopic measurements of carbonaceous aerosol aging in Central California" published in Atmos. Chem. Phys., 13, 10445â€“10459, 2013. Atmospheric Chemistry and Physics, 2014, 14, 6343-6344.	1.9	0
107	In Situ Imaging and Spectroscopy of Particles in Liquid. Microscopy and Microanalysis, 2017, 23, 882-883.	0.2	0
108	In Operando SEM Imaging of Electrochemical Oxidation of UO2 in Liquid. Microscopy and Microanalysis, 2019, 25, 1578-1579.	0.2	0

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109	Green Rust: Revealing the Structural Evolution of Green Rust Synthesized in Ionic Liquids by In Situ Molecular Imaging (Adv. Mater. Interfaces 15/2020). Advanced Materials Interfaces, 2020, 7, 2070086.	1.9	0
110	Studying the UO2 Electrochemistry In Situ Using SEM. Microscopy and Microanalysis, 2020, 26, 1790-1792.	0.2	0
111	Making electrodes by particle stamping for microscopic and electrochemical analysis. Microscopy and Microanalysis, 2021, 27, 2504-2506.	0.2	0
112	To fix or not fix biofilms to study microbial soil aggregation. Microscopy and Microanalysis, 2021, 27, 1148-1149.	0.2	0
113	Evaluating Concentration Profiles During Unsteady Mixing. , 2009, , .		0
114	Evaluation of Replacing Natural Gas Heat Plant with a Biomass Heat Plant - A Technical Review of Greenhouse Gas Emission Trade-Offs. , 0, , .		0