Robert Seidel

List of Publications by Year
in descending order

57 papers	2,064 citations	185998 28 h-index	243296 44 g-index
58 all docs	58 docs citations	58 times ranked	2332 citing authors

#	Article	IF	Citations
1	Improving the Acidic Stability of Zeolitic Imidazolate Frameworks by Biofunctional Molecules. CheM, 2019, 5, 1597-1608.	5.8	148
2	Photoelectron Angular Distributions from Liquid Water: Effects of Electron Scattering. Physical Review Letters, 2013, 111, 173005.	2.9	132
3	Photoelectron Spectroscopy Meets Aqueous Solution: Studies from a Vacuum Liquid Microjet. Journal of Physical Chemistry Letters, 2011, 2, 633-641.	2.1	115
4	First-Principle Protocol for Calculating Ionization Energies and Redox Potentials of Solvated Molecules and Ions: Theory and Application to Aqueous Phenol and Phenolate. Journal of Physical Chemistry B, 2012, 116, 7269-7280.	1.2	113
5	On the nature and origin of dicationic, charge-separated species formed in liquid water on X-ray irradiation. Nature Chemistry, 2013, 5, 590-596.	6.6	101
6	Valence Electronic Structure of Aqueous Solutions: Insights from Photoelectron Spectroscopy. Annual Review of Physical Chemistry, 2016, 67, 283-305.	4.8	78
7	Spectroscopy of highly charged tungsten ions relevant to fusion plasmas. Physica Scripta, 2009, T134, 014026.	1.2	73
8	Oxidation Half-Reaction of Aqueous Nucleosides and Nucleotides via Photoelectron Spectroscopy Augmented by ab Initio Calculations. Journal of the American Chemical Society, 2015, 137, 201-209.	6.6	69
9	Photoelectron Spectra of Aqueous Solutions from First Principles. Journal of the American Chemical Society, 2016, 138, 6912-6915.	6.6	64
10	Single-Ion Reorganization Free Energy of Aqueous Ru(bpy)₃^{2+/3+} and Ru(H₂O)₆^{2+/3+} from Photoemission Spectroscopy and Density Functional Molecular Dynamics Simulation. Journal of the American Chemical Society, 2009, 131, 16127-16137.	6.6	62
11	Valence Photoemission Spectra of Aqueous Fe^{2+/3+} and [Fe(CN)₆]^{4â€“/3â€“} and Their Interpretation by DFT Calculations. Journal of Physical Chemistry B, 2011, 115, 11671-11677.	1.2	54
12	Observation of electron-transfer-mediated decay in aqueous solution. Nature Chemistry, 2017, 9, 708-714.	6.6	51
13	Electronic structure of aqueous solutions: Bridging the gap between theory and experiments. Science Advances, 2017, 3, e1603210.	4.7	49
14	Transforming Anion Instability into Stability: Contrasting Photoionization of Three Protonation Forms of the Phosphate Ion upon Moving into Water. Journal of Physical Chemistry B, 2012, 116, 13254-13264.	1.2	48
15	Multi-reference approach to the calculation of photoelectron spectra including spin-orbit coupling. Journal of Chemical Physics, 2015, 143, 074104.	1.2	48
16	Photoelectron spectra of alkali metalâ€“ammonia microjets: From blue electrolyte to bronze metal. Science, 2020, 368, 1086-1091.	6.0	47
17	Energy Levels and Redox Properties of Aqueous Mn^{2+/3+} from Photoemission Spectroscopy and Density Functional Molecular Dynamics Simulation. Journal of Physical Chemistry B, 2010, 114, 9173-9182.	1.2	44
18	Advances in liquid phase soft-x-ray photoemission spectroscopy: A new experimental setup at BESSY II. Review of Scientific Instruments, 2017, 88, 073107.	0.6	43

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19	Electronic structure of sub-10 nm colloidal silica nanoparticles measured by in situ photoelectron spectroscopy at the aqueous-solid interface. Physical Chemistry Chemical Physics, 2011, 13, 12720.	1.3	39
20	Ultrafast Hybridization Screening in Fe³⁺ Aqueous Solution. Journal of the American Chemical Society, 2011, 133, 12528-12535.	6.6	38
21	Joint Analysis of Radiative and Non-Radiative Electronic Relaxation Upon X-ray Irradiation of Transition Metal Aqueous Solutions. Scientific Reports, 2016, 6, 24659.	1.6	38
22	Unexpectedly Small Effect of the DNA Environment on Vertical Ionization Energies of Aqueous Nucleobases. Journal of Physical Chemistry Letters, 2013, 4, 3766-3769.	2.1	36
23	Exploring the Aqueous Vertical Ionization of Organic Molecules by Molecular Simulation and Liquid Microjet Photoelectron Spectroscopy. Journal of Physical Chemistry B, 2015, 119, 238-256.	1.2	32
24	Origin of Dark-Channel X-ray Fluorescence from Transition-Metal Ions in Water. Journal of the American Chemical Society, 2012, 134, 1600-1605.	6.6	31
25	Do water's electrons care about electrolytes?. Chemical Science, 2019, 10, 848-865.	3.7	31
26	Flexible H2O2in Water: Electronic Structure from Photoelectron Spectroscopy and Ab Initio Calculations. Journal of Physical Chemistry A, 2011, 115, 6239-6249.	1.1	29
27	Photoemission Spectra and Density Functional Theory Calculations of 3d Transition Metalâ€“Aqua Complexes (Tiâ€“Cu) in Aqueous Solution. Journal of Physical Chemistry B, 2014, 118, 6850-6863.	1.2	28
28	Valence and Core-Level X-ray Photoelectron Spectroscopy of a Liquid Ammonia Microjet. Journal of the American Chemical Society, 2019, 141, 1838-1841.	6.6	28
29	Probing the Electronic Structure of Bulk Water at the Molecular Length Scale with Angle-Resolved Photoelectron Spectroscopy. Journal of Physical Chemistry Letters, 2020, 11, 5162-5170.	2.1	27
30	Dielectronic and radiative recombination of Si- to N-like tungsten ions. Journal of Physics: Conference Series, 2009, 163, 012034.	0.3	23
31	Exploring Redox Properties of Aromatic Amino Acids in Water: Contrasting Single Photon vs Resonant Multiphoton Ionization in Aqueous Solutions. Journal of Physical Chemistry B, 2018, 122, 3723-3733.	1.2	23
32	Control of X-ray Induced Electron and Nuclear Dynamics in Ammonia and Glycine Aqueous Solution via Hydrogen Bonding. Journal of Physical Chemistry B, 2015, 119, 10750-10759.	1.2	22
33	Electronic structure of aqueous-phase anatase titanium dioxide nanoparticles probed by liquid jet photoelectron spectroscopy. Journal of Materials Chemistry A, 2019, 7, 6665-6675.	5.2	22
34	Undistorted X-ray Absorption Spectroscopy Using s-Core-Orbital Emissions. Journal of Physical Chemistry A, 2016, 120, 2808-2814.	1.1	21
35	Metalâ€“Phenolic Networks as Tunable Buffering Systems. Chemistry of Materials, 2021, 33, 2557-2566.	3.2	21
36	Sensitivity of Electron Transfer Mediated Decay to Ion Pairing. Journal of Physical Chemistry B, 2017, 121, 7709-7714.	1.2	18

#	ARTICLE	IF	CITATIONS
37	Accessing the solid electrolyte interphase on silicon anodes for lithium-ion batteries in-situ through transmission soft X-ray absorption spectroscopy. Materials Today Advances, 2022, 14, 100215.	2.5	18
38	Spectroscopic evidence for a gold-coloured metallic water solution. Nature, 2021, 595, 673-676.	13.7	16
39	In-Situ X-ray Spectroscopy of the Electric Double Layer around TiO₂ Nanoparticles Dispersed in Aqueous Solution: Implications for H₂ Generation. ACS Applied Nano Materials, 2020, 3, 264-273.	2.4	15
40	Nanostructured Boron Doped Diamond Electrodes with Increased Reactivity for Solarâ€Driven CO₂ Reduction in Room Temperature Ionic Liquids. ChemCatChem, 2020, 12, 5548-5557.	1.8	15
41	Ti³⁺ Aqueous Solution: Hybridization and Electronic Relaxation Probed by State-Dependent Electron Spectroscopy. Journal of Physical Chemistry B, 2015, 119, 10607-10615.	1.2	14
42	Chemical bonding in aqueous hexacyano cobaltate from photon- and electron-detection perspectives. Scientific Reports, 2017, 7, 40811.	1.6	14
43	Molecular species forming at the Î±-Fe₂O₃ nanoparticleâ€“aqueous solution interface. Chemical Science, 2018, 9, 4511-4523.	3.7	14
44	Aqueous Solution Chemistry of Ammonium Cation in the Auger Time Window. Scientific Reports, 2017, 7, 756.	1.6	12
45	Detection of the electronic structure of iron-(<scp>iii)</scp>-oxo oligomers forming in aqueous solutions. Physical Chemistry Chemical Physics, 2017, 19, 32226-32234.	1.3	11
46	Molecular Arrangement of a Mixture of Organosulfur Surfactants at the Aqueous Solutionâ€“Vapor Interface Studied by Photoelectron Intensity and Angular Distribution Measurements and Molecular Dynamics Simulations. Journal of Physical Chemistry C, 2019, 123, 8160-8170.	1.5	11
47	Photoelectron angular distributions as sensitive probes of surfactant layer structure at the liquidâ€“vapor interface. Physical Chemistry Chemical Physics, 2022, 24, 4796-4808.	1.3	11
48	Reversible Water-Induced Phase Changes of Cobalt Oxide Nanoparticles. ACS Nano, 2020, 14, 15450-15457.	7.3	9
49	Deeply cooled and temperature controlled microjets: Liquid ammonia solutions released into vacuum for analysis by photoelectron spectroscopy. Review of Scientific Instruments, 2020, 91, 043101.	0.6	9
50	Optical Fluorescence Detected from X-ray Irradiated Liquid Water. Journal of Physical Chemistry B, 2017, 121, 2326-2330.	1.2	8
51	The electronic structure of the aqueous permanganate ion: aqueous-phase energetics and molecular bonding studied using liquid jet photoelectron spectroscopy. Physical Chemistry Chemical Physics, 2020, 22, 20311-20330.	1.3	8
52	Observation of early ZIF-8 crystallization stages with X-ray absorption spectroscopy. Soft Matter, 2021, 17, 331-334.	1.2	7
53	Following in Emil Fischerâ€™s Footsteps: A Site-Selective Probe of Glucose Acidâ€“Base Chemistry. Journal of Physical Chemistry A, 2021, 125, 6881-6892.	1.1	7
54	Photoelectron Spectroscopy of Benzene in the Liquid Phase and Dissolved in Liquid Ammonia. Journal of Physical Chemistry B, 2022, 126, 229-238.	1.2	7

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55	Spin propensity in resonant photoemission of transition metal complexes. Physical Review Research, 2021, 3, .	1.3	5
56	Resonant Electron Spectroscopy: Identification of Atomic Contributions to Valence States. Faraday Discussions, 2022, , .	1.6	2
57	Soft X-ray induced ultraviolet fluorescence emission from bulk and interface of a liquid water microjet. Journal of Physics: Conference Series, 2017, 875, 042008.	0.3	0