Robert Seidel

List of Publications by Year
in descending order

57 papers	2,064 citations	186265 28 h-index	243625 44 g-index
58 all docs	58 docs citations	58 times ranked	2332 citing authors

#	Article	IF	Citations
1	Photoelectron angular distributions as sensitive probes of surfactant layer structure at the liquidâ€“vapor interface. Physical Chemistry Chemical Physics, 2022, 24, 4796-4808.	2.8	11
2	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.	5.2	18
3	Resonant Electron Spectroscopy: Identification of Atomic Contributions to Valence States. Faraday Discussions, 2022, , .	3.2	2
4	Photoelectron Spectroscopy of Benzene in the Liquid Phase and Dissolved in Liquid Ammonia. Journal of Physical Chemistry B, 2022, 126, 229-238.	2.6	7
5	Observation of early ZIF-8 crystallization stages with X-ray absorption spectroscopy. Soft Matter, 2021, 17, 331-334.	2.7	7
6	Metalâ€“Phenolic Networks as Tunable Buffering Systems. Chemistry of Materials, 2021, 33, 2557-2566.	6.7	21
7	Spin propensity in resonant photoemission of transition metal complexes. Physical Review Research, 2021, 3, .	3.6	5
8	Following in Emil Fischerâ€™s Footsteps: A Site-Selective Probe of Glucose Acidâ€“Base Chemistry. Journal of Physical Chemistry A, 2021, 125, 6881-6892.	2.5	7
9	Spectroscopic evidence for a gold-coloured metallic water solution. Nature, 2021, 595, 673-676.	27.8	16
10	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.	5.0	15
11	Nanostructured Boron Doped Diamond Electrodes with Increased Reactivity for Solarâ€Driven CO₂ Reduction in Room Temperature Ionic Liquids. ChemCatChem, 2020, 12, 5548-5557.	3.7	15
12	Reversible Water-Induced Phase Changes of Cobalt Oxide Nanoparticles. ACS Nano, 2020, 14, 15450-15457.	14.6	9
13	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.	2.8	8
14	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.	4.6	27
15	Photoelectron spectra of alkali metalâ€“ammonia microjets: From blue electrolyte to bronze metal. Science, 2020, 368, 1086-1091.	12.6	47
16	Deeply cooled and temperature controlled microjets: Liquid ammonia solutions released into vacuum for analysis by photoelectron spectroscopy. Review of Scientific Instruments, 2020, 91, 043101.	1.3	9
17	Electronic structure of aqueous-phase anatase titanium dioxide nanoparticles probed by liquid jet photoelectron spectroscopy. Journal of Materials Chemistry A, 2019, 7, 6665-6675.	10.3	22
18	Do water's electrons care about electrolytes?. Chemical Science, 2019, 10, 848-865.	7.4	31

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19	Valence and Core-Level X-ray Photoelectron Spectroscopy of a Liquid Ammonia Microjet. Journal of the American Chemical Society, 2019, 141, 1838-1841.	13.7	28
20	Improving the Acidic Stability of Zeolitic Imidazolate Frameworks by Biofunctional Molecules. CheM, 2019, 5, 1597-1608.	11.7	148
21	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.	3.1	11
22	Molecular species forming at the Î±-Fe₂O₃ nanoparticleâ€"aqueous solution interface. Chemical Science, 2018, 9, 4511-4523.	7.4	14
23	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.	2.6	23
24	Observation of electron-transfer-mediated decay in aqueous solution. Nature Chemistry, 2017, 9, 708-714.	13.6	51
25	Chemical bonding in aqueous hexacyano cobaltate from photon- and electron-detection perspectives. Scientific Reports, 2017, 7, 40811.	3.3	14
26	Optical Fluorescence Detected from X-ray Irradiated Liquid Water. Journal of Physical Chemistry B, 2017, 121, 2326-2330.	2.6	8
27	Sensitivity of Electron Transfer Mediated Decay to Ion Pairing. Journal of Physical Chemistry B, 2017, 121, 7709-7714.	2.6	18
28	Aqueous Solution Chemistry of Ammonium Cation in the Auger Time Window. Scientific Reports, 2017, 7, 756.	3.3	12
29	Advances in liquid phase soft-x-ray photoemission spectroscopy: A new experimental setup at BESSY II. Review of Scientific Instruments, 2017, 88, 073107.	1.3	43
30	Detection of the electronic structure of iron-(<scp>iii)</scp>-oxo oligomers forming in aqueous solutions. Physical Chemistry Chemical Physics, 2017, 19, 32226-32234.	2.8	11
31	Electronic structure of aqueous solutions: Bridging the gap between theory and experiments. Science Advances, 2017, 3, e1603210.	10.3	49
32	Soft X-ray induced ultraviolet fluorescence emission from bulk and interface of a liquid water microjet. Journal of Physics: Conference Series, 2017, 875, 042008.	0.4	0
33	Valence Electronic Structure of Aqueous Solutions: Insights from Photoelectron Spectroscopy. Annual Review of Physical Chemistry, 2016, 67, 283-305.	10.8	78
34	Photoelectron Spectra of Aqueous Solutions from First Principles. Journal of the American Chemical Society, 2016, 138, 6912-6915.	13.7	64
35	Undistorted X-ray Absorption Spectroscopy Using s-Core-Orbital Emissions. Journal of Physical Chemistry A, 2016, 120, 2808-2814.	2.5	21
36	Joint Analysis of Radiative and Non-Radiative Electronic Relaxation Upon X-ray Irradiation of Transition Metal Aqueous Solutions. Scientific Reports, 2016, 6, 24659.	3.3	38

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37	Multi-reference approach to the calculation of photoelectron spectra including spin-orbit coupling. Journal of Chemical Physics, 2015, 143, 074104.	3.0	48
38	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.	2.6	22
39	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.	2.6	32
40	Ti³⁺ Aqueous Solution: Hybridization and Electronic Relaxation Probed by State-Dependent Electron Spectroscopy. Journal of Physical Chemistry B, 2015, 119, 10607-10615.	2.6	14
41	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.	13.7	69
42	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.	2.6	28
43	Unexpectedly Small Effect of the DNA Environment on Vertical Ionization Energies of Aqueous Nucleobases. Journal of Physical Chemistry Letters, 2013, 4, 3766-3769.	4.6	36
44	Photoelectron Angular Distributions from Liquid Water: Effects of Electron Scattering. Physical Review Letters, 2013, 111, 173005.	7.8	132
45	On the nature and origin of dicationic, charge-separated species formed in liquid water on X-ray irradiation. Nature Chemistry, 2013, 5, 590-596.	13.6	101
46	Origin of Dark-Channel X-ray Fluorescence from Transition-Metal Ions in Water. Journal of the American Chemical Society, 2012, 134, 1600-1605.	13.7	31
47	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.	2.6	113
48	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.	2.6	48
49	Flexible H2O2in Water: Electronic Structure from Photoelectron Spectroscopy and Ab Initio Calculations. Journal of Physical Chemistry A, 2011, 115, 6239-6249.	2.5	29
50	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.	2.8	39
51	Ultrafast Hybridization Screening in Fe³⁺ Aqueous Solution. Journal of the American Chemical Society, 2011, 133, 12528-12535.	13.7	38
52	Photoelectron Spectroscopy Meets Aqueous Solution: Studies from a Vacuum Liquid Microjet. Journal of Physical Chemistry Letters, 2011, 2, 633-641.	4.6	115
53	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.	2.6	54
54	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.	2.6	44

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55	Dielectronic and radiative recombination of Si- to N-like tungsten ions. Journal of Physics: Conference Series, 2009, 163, 012034.	0.4	23
56	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.	13.7	62
57	Spectroscopy of highly charged tungsten ions relevant to fusion plasmas. Physica Scripta, 2009, T134, 014026.	2.5	73