

# Gerald T Seidler

## List of Publications by Year in descending order

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59  
papers

1,802  
citations

257450

24  
h-index

276875

41  
g-index

63  
all docs

63  
docs citations

63  
times ranked

2573  
citing authors

#	ARTICLE	IF	CITATIONS
1	Fast and reversible zinc ion intercalation in Al-ion modified hydrated vanadate. <i>Nano Energy</i> , 2020, 70, 104519.	16.0	188
2	Structural engineering of hydrated vanadium oxide cathode by K <sup>+</sup> incorporation for high-capacity and long-cycling aqueous zinc ion batteries. <i>Energy Storage Materials</i> , 2020, 29, 9-16.	18.0	139
3	Energy-Degeneracy-Driven Covalency in Actinide Bonding. <i>Journal of the American Chemical Society</i> , 2018, 140, 17977-17984.	13.7	108
4	Enhanced Lithium-Ion Intercalation Properties of V <sub>2</sub> O <sub>5</sub> Xerogel Electrodes with Surface Defects. <i>Journal of Physical Chemistry C</i> , 2011, 115, 4959-4965.	3.1	96
5	Probing Surface Defects of InP Quantum Dots Using Phosphorus K <sub>1</sub> and K <sub>2</sub> X-ray Emission Spectroscopy. <i>Chemistry of Materials</i> , 2018, 30, 6377-6388.	6.7	70
6	An improved laboratory-based x-ray absorption fine structure and x-ray emission spectrometer for analytical applications in materials chemistry research. <i>Review of Scientific Instruments</i> , 2019, 90, 024106.	1.3	70
7	Interface Engineering V <sub>2</sub> O <sub>5</sub> Nanofibers for High-Energy and Durable Supercapacitors. <i>Small</i> , 2019, 15, e1901747.	10.0	66
8	Covalency in Metal-Oxygen Multiple Bonds Evaluated Using Oxygen K-edge Spectroscopy and Electronic Structure Theory. <i>Journal of the American Chemical Society</i> , 2013, 135, 1864-1871.	13.7	57
9	Tailoring Energy and Power Density through Controlling the Concentration of Oxygen Vacancies in V <sub>2</sub> O <sub>5</sub> /PEDOT Nanocable-Based Supercapacitors. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 16647-16655.	8.0	57
10	Aminophosphines as Versatile Precursors for the Synthesis of Metal Phosphide Nanocrystals. <i>Chemistry of Materials</i> , 2018, 30, 5373-5379.	6.7	54
11	V <sub>2</sub> O <sub>5</sub> -Conductive polymer nanocables with built-in local electric field derived from interfacial oxygen vacancies for high energy density supercapacitors. <i>Journal of Materials Chemistry A</i> , 2019, 7, 17966-17973.	10.3	53
12	Local Electronic Structure of Dicarba-closo-dodecarboranes C <sub>2</sub> B <sub>10</sub> H <sub>12</sub> . <i>Journal of the American Chemical Society</i> , 2008, 130, 925-932.	13.7	50
13	Effect of pore morphology on the electrochemical properties of electric double layer carbon cryogel supercapacitors. <i>Journal of Applied Physics</i> , 2008, 104, 014305.	2.5	46
14	New Insights into the High-Performance Black Phosphorus Anode for Lithium-Ion Batteries. <i>Advanced Materials</i> , 2021, 33, e2101259.	21.0	41
15	Competing Effects of Fluorination on the Orientation of Aromatic and Aliphatic Phosphonic Acid Monolayers on Indium Tin Oxide. <i>Journal of Physical Chemistry C</i> , 2013, 117, 15139-15147.	3.1	40
16	A compact dispersive refocusing Rowland circle X-ray emission spectrometer for laboratory, synchrotron, and XFEL applications. <i>Review of Scientific Instruments</i> , 2017, 88, 073904.	1.3	40
17	The coordination chemistry of Cm <sup>III</sup> , Am <sup>III</sup> , and Ac <sup>III</sup> in nitrate solutions: an actinide L <sub>3</sub> -edge EXAFS study. <i>Chemical Science</i> , 2018, 9, 7078-7090.	7.4	40
18	Experimental and Theoretical Comparison of the O K-Edge Nonresonant Inelastic X-ray Scattering and X-ray Absorption Spectra of NaReO <sub>4</sub> . <i>Journal of the American Chemical Society</i> , 2010, 132, 13914-13921.	13.7	37

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19	X-ray Emission Spectroscopy of Biomimetic Mn Coordination Complexes. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 2584-2589.	4.6	31
20	Probing Sulfur Chemical and Electronic Structure with Experimental Observation and Quantitative Theoretical Prediction of $K\text{L}_{23}$ and Valence-to-Core $K\text{L}_{23}^2$ X-ray Emission Spectroscopy. <i>Journal of Physical Chemistry A</i> , 2020, 124, 5415-5434.	2.5	30
21	Intermediate-range order in water ices: Nonresonant inelastic x-ray scattering measurements and real-space full multiple scattering calculations. <i>Physical Review B</i> , 2009, 79, .	3.2	26
22	Conjugated Metal-Organic Macrocycles: Synthesis, Characterization, and Electrical Conductivity. <i>Journal of the American Chemical Society</i> , 2022, 144, 4515-4521.	13.7	25
23	$4f$ electron delocalization and volume collapse in praseodymium metal. <i>Physical Review B</i> , 2012, 85, .	3.2	24
24	Kinetic Modeling of the X-ray-Induced Damage to a Metalloprotein. <i>Journal of Physical Chemistry B</i> , 2013, 117, 9161-9169.	2.6	24
25	Benchtop Nonresonant X-ray Emission Spectroscopy: Coming Soon to Laboratories and XAS Beamlines Near You?. <i>Journal of Physics: Conference Series</i> , 2016, 712, 012036.	0.4	24
26	X-ray Emission Spectroscopy of Mn Coordination Complexes Toward Interpreting the Electronic Structure of the Oxygen-Evolving Complex of Photosystem II. <i>Journal of Physical Chemistry C</i> , 2016, 120, 3326-3333.	3.1	24
27	Sulfur Speciation in Biochars by Very High Resolution Benchtop $K\text{L}_{23}$ X-ray Emission Spectroscopy. <i>Journal of Physical Chemistry A</i> , 2018, 122, 5153-5161.	2.5	24
28	Rapid Evolution of the Photosystem II Electronic Structure during Water Splitting. <i>Physical Review X</i> , 2018, 8, .	8.9	23
29	Determination of Hexavalent Chromium Fractions in Plastics Using Laboratory-Based, High-Resolution X-ray Emission Spectroscopy. <i>Analytical Chemistry</i> , 2018, 90, 6587-6593.	6.5	23
30	Unsupervised machine learning for unbiased chemical classification in X-ray absorption spectroscopy and X-ray emission spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 23586-23601.	2.8	23
31	Surface Functionalization of Black Phosphorus with Nitrenes: Identification of P=N Bonds by Using Isotopic Labeling. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 9127-9134.	13.8	21
32	Robust optic alignment in a tilt-free implementation of the Rowland circle spectrometer. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2017, 215, 8-15.	1.7	20
33	Laboratory-Based X-ray Absorption Spectroscopy on a Working Pouch Cell Battery at Industrially-Relevant Charging Rates. <i>Journal of the Electrochemical Society</i> , 2019, 166, A2549-A2555.	2.9	20
34	Real-space Green's function calculations of Compton profiles. <i>Physical Review B</i> , 2012, 85, .	3.2	19
35	Reducing radiation damage in macromolecular crystals at synchrotron sources. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2009, 65, 366-374.	2.5	16
36	A color x-ray camera for 2-6 keV using a mass produced back illuminated complementary metal oxide semiconductor sensor. <i>Review of Scientific Instruments</i> , 2018, 89, 093111.	1.3	14

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37	A mail-in and user facility for X-ray absorption near-edge structure: the CEI-XANES laboratory X-ray spectrometer at the University of Washington. <i>Journal of Synchrotron Radiation</i> , 2019, 26, 2086-2093.	2.4	14
38	Direct Measurement of Acceptor Group Localization on Donor-acceptor Polymers Using Resonant Auger Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2014, 118, 5570-5578.	3.1	13
39	Vacuum formed temporary spherically and toroidally bent crystal analyzers for x-ray absorption and x-ray emission spectroscopy. <i>Review of Scientific Instruments</i> , 2019, 90, 013106.	1.3	12
40	Theoretical treatments of the bound-free contribution and experimental best practice in X-ray Thomson scattering from warm dense matter. <i>Physics of Plasmas</i> , 2013, 20, .	1.9	10
41	Warm dense crystallography. <i>Physical Review B</i> , 2016, 93, .	3.2	10
42	Double-ionization satellites in the x-ray emission spectrum of Ni metal. <i>Physical Review A</i> , 2017, 96, .	2.5	10
43	Valence-to-core X-ray emission spectroscopy of vanadium oxide and lithiated vanadyl phosphate materials. <i>Journal of Materials Chemistry A</i> , 2020, 8, 16332-16344.	10.3	10
44	4 <sup>+</sup> : Invited Paper: Role of Phosphorus Oxidation in Controlling the Luminescent Properties of Indium Phosphide Quantum Dots. <i>Digest of Technical Papers SID International Symposium</i> , 2018, 49, 21-24.	0.3	8
45	X-ray Emission Spectroscopy at X-ray Free Electron Lasers: Limits to Observation of the Classical Spectroscopic Response for Electronic Structure Analysis. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 441-446.	4.6	8
46	Note: A disposable x-ray camera based on mass produced complementary metal-oxide-semiconductor sensors and single-board computers. <i>Review of Scientific Instruments</i> , 2015, 86, 086107.	1.3	7
47	Informed Chemical Classification of Organophosphorus Compounds via Unsupervised Machine Learning of X-ray Absorption Spectroscopy and X-ray Emission Spectroscopy. <i>Journal of Physical Chemistry A</i> , 2022, 126, 4862-4872.	2.5	7
48	Factors Defining the Intercalation Electrochemistry of CaFe <sub>2</sub> O <sub>4</sub> -Type Manganese Oxides. <i>Chemistry of Materials</i> , 2020, 32, 8203-8215.	6.7	6
49	Reactivity of a Chloride Decorated, Mixed Valent Ce <sup>III/IV</sup> <sub>38</sub> Oxo Cluster. <i>Inorganic Chemistry</i> , 2022, 61, 193-205.	4.0	6
50	Resonant inelastic X-ray scattering using a miniature dispersive Rowland refocusing spectrometer. <i>Journal of Synchrotron Radiation</i> , 2020, 27, 446-454.	2.4	5
51	X-ray absorption spectroscopy of trivalent Eu, Gd, Tb, and Dy chlorides and oxychlorides. <i>Journal of Alloys and Compounds</i> , 2022, 897, 162629.	5.5	4
52	Effect of chlorine and chromium on sulfur solubility in Low-activity waste glass. <i>International Journal of Applied Glass Science</i> , 0, .	2.0	3
53	Nonlocal heat transport and improved target design for x-ray heating studies at x-ray free electron lasers. <i>Physical Review B</i> , 2018, 97, .	3.2	2
54	An exploration of benchtop X-ray emission spectroscopy for precise characterization of the sulfur redox state in cementitious materials. <i>X-Ray Spectrometry</i> , 2022, 51, 151-162.	1.4	2

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55	Spherically bent mica analyzers as universal dispersing elements for X-ray spectroscopy. X-Ray Spectrometry, 2020, 49, 493-501.	1.4	1
56	Characterizing Polyoxovanadate-Alkoxide Clusters Using Vanadium K-Edge X-Ray Absorption Spectroscopy. Chemistry - A European Journal, 2021, 27, 1592-1597.	3.3	1
57	EFFECT OF PORE MORPHOLOGY ON THE ELECTROCHEMICAL PROPERTIES OF ELECTRIC DOUBLE LAYER CARBON CRYOGEL SUPERCAPACITORS. , 2008, ,		0
58	Surface Functionalization of Black Phosphorus with Nitrenes: Identification of P=N Bonds by Using Isotopic Labeling. Angewandte Chemie, 2021, 133, 9209-9216.	2.0	0
59	Iron redox analysis of silicate-based minerals and glasses using synchrotron X-ray absorption and laboratory X-ray emission spectroscopy. Journal of Non-Crystalline Solids, 2022, 577, 121326.	3.1	0