Joshua J Kas

List of Publications by Year
in descending order

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64 papers	3,127 citations	236925 25 h-index	155660 55 g-index
66 all docs	66 docs citations	66 times ranked	4562 citing authors

#	Article	IF	Citations
1	Parameter-free calculations of X-ray spectra with FEFF9. Physical Chemistry Chemical Physics, 2010, 12, 5503.	2.8	985
2	Ab initio theory and calculations of X-ray spectra. Comptes Rendus Physique, 2009, 10, 548-559.	0.9	468
3	Bethe-Salpeter equation calculations of core excitation spectra. Physical Review B, 2011, 83, .	3.2	228
4	Valence Electron Photoemission Spectrum of Semiconductors:AbÂInitioDescription of Multiple Satellites. Physical Review Letters, 2011, 107, 166401.	7.8	120
5	Automated generation and ensemble-learned matching of X-ray absorption spectra. Npj Computational Materials, 2018, 4, .	8.7	82
6	Cumulant expansion of the retarded one-electron Green function. Physical Review B, 2014, 90, .	3.2	77
7	Many-pole model of inelastic losses in x-ray absorption spectra. Physical Review B, 2007, 76, .	3.2	68
8	Dynamical effects in electron spectroscopy. Journal of Chemical Physics, 2015, 143, 184109.	3.0	57
9	L-edge XANES analysis of photoexcited metal complexes in solution. Physical Chemistry Chemical Physics, 2010, 12, 5551.	2.8	50
10	Orbital and spin character of doped carriers in infinite-layer nickelates. Physical Review B, 2021, 104, .	3.2	50
11	Theoretical optical and x-ray spectra of liquid and solid H<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>O. Physical Review B, 2012, 85, .	3.2	47
12	Ab initiocalculations of electron inelastic mean free paths and stopping powers. Physical Review B, 2006, 74, .	3.2	46
13	Benchmark results and theoretical treatments for valence-to-core x-ray emission spectroscopy in transition metal compounds. Physical Review B, 2017, 96, .	3.2	43
14	Polarization Dependent High Energy Resolution X-ray Absorption Study of Dicesium Uranyl Tetrachloride. Inorganic Chemistry, 2015, 54, 174-182.	4.0	41
15	A compact dispersive refocusing Rowland circle X-ray emission spectrometer for laboratory, synchrotron, and XFEL applications. Review of Scientific Instruments, 2017, 88, 073904.	1.3	40
16	Multiple satellites in materials with complex plasmon spectra: From graphite to graphene. Physical Review B, 2014, 89, .	3.2	38
17	Real-time cumulant approach for charge-transfer satellites in x-ray photoemission spectra. Physical Review B, 2015, 91, .	3.2	38
18	Real-space Greenâ€™s function approach to resonant inelastic x-ray scattering. Physical Review B, 2011, 83, .	3.2	34

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19	Finite Temperature Greenâ€™s Function Approach for Excited State and Thermodynamic Properties of Cool to Warm Dense Matter. Physical Review Letters, 2017, 119, 176403.	7.8	34
20	Particle-hole cumulant approach for inelastic losses in x-ray spectra. Physical Review B, 2016, 94, .	3.2	32
21	Real space calculation of optical constants from optical to x-ray frequencies. Physical Review B, 2009, 80, .	3.2	31
22	Cumulant expansion for phonon contributions to the electron spectral function. Physical Review B, 2014, 90, .	3.2	30
23	Revisiting the origin of satellites in core-level photoemission of transparent conducting oxides: The case of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>n</mml:mi></mml:math> -doped <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>SnO</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math> . Physical Review B, 2018, 97, .	3.2	30
24	Deconvolving instrumental and intrinsic broadening in core-shell x-ray spectroscopies. Physical Review B, 2007, 75, .	3.2	28
25	Plasmon satellites in valence-band photoemission spectroscopy. European Physical Journal B, 2012, 85, 1.	1.5	27
26	Geometry of electromechanically active structures in Gadolinium - doped Cerium oxides. AIP Advances, 2016, 6, 055320.	1.3	27
27	Advanced calculations of X-ray spectroscopies with FEFF10 and Corvus. Journal of Synchrotron Radiation, 2021, 28, 1801-1810.	2.4	27
28	Equation of motion coupled-cluster cumulant approach for intrinsic losses in x-ray spectra. Journal of Chemical Physics, 2020, 152, 174113.	3.0	25
29	Database of ab initio L-edge X-ray absorption near edge structure. Scientific Data, 2021, 8, 153.	5.3	21
30	Real-Time Coupled-Cluster Approach for the Cumulant Greenâ€™s Function. Journal of Chemical Theory and Computation, 2020, 16, 6983-6992.	5.3	19
31	Unraveling intrinsic correlation effects with angle-resolved photoemission spectroscopy. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 28596-28602.	7.1	18
32	Effects of Adsorbate Coverage and Bondâ€Length Disorder on the dâ€Band Center of Carbonâ€Supported Pt Catalysts. ChemPhysChem, 2014, 15, 1569-1572.	2.1	17
33	Many-pole model of inelastic losses applied to calculations of XANES. Journal of Physics: Conference Series, 2009, 190, 012009.	0.4	16
34	Spatial dependence and mitigation of radiation damage by a line-focus mini-beam. Acta Crystallographica Section D: Biological Crystallography, 2010, 66, 1287-1294.	2.5	14
35	Mitigation of X-ray damage in macromolecular crystallography by submicrometre line focusing. Acta Crystallographica Section D: Biological Crystallography, 2013, 69, 1463-1469.	2.5	14
36	Charge-transfer satellites and chemical bonding in photoemission and x-ray absorption of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>SrTi</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math> and rutile <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Ti</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> : Expe	3.2	14

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37	Intensity oscillations in the carbon 1s ionization cross sections of 2-butyne. Journal of Chemical Physics, 2013, 138, 234310.	3.0	12
38	Energy-Dependent Relative Cross Sections in Carbon 1s Photoionization: Separation of Direct Shake and Inelastic Scattering Effects in Single Molecules. Journal of Physical Chemistry A, 2019, 123, 7619-7636.	2.5	12
39	Description of Resonant Inelastic X-Ray Scattering in Correlated Metals. Physical Review X, 2021, 11, .	8.9	12
40	X-ray absorption near-edge spectra of overdoped<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi mathvariant="normal">La</mml:mi><mml:mrow><mml:mn>2</mml:mn><mml:mo>â^’</mml:mo><mml:mi>x</mml:mi></mml:mrow><mml:mi mathvariant="normal">Sr</mml:mi><mml:mrow><mml:mi>x</mml:mi></mml:mrow></mml:msub><mml:msub><mml:mi mathvariant="normal">CuO</mml:mi><mml:mrow><mml:mn>4</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>high-xmlns:m. Physical Review B, 2011, 83, .	3.2	11
41	Core hole processes in x-ray absorption and photoemission by resonant Auger-electron spectroscopy and first-principles theory. Physical Review B, 2020, 101, .	3.2	11
42	Strengths of plasmon satellites in XPS: Real-time cumulant approach. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, .	2.1	11
43	Double-ionization satellites in the x-ray emission spectrum of Ni metal. Physical Review A, 2017, 96, .	2.5	10
44	Valence-to-core X-ray emission spectroscopy of vanadium oxide and lithiated vanadyl phosphate materials. Journal of Materials Chemistry A, 2020, 8, 16332-16344.	10.3	10
45	Probing the Local Bonding at the Pt/Î³-Al₂O₃ Interface. Journal of Physical Chemistry C, 2020, 124, 9876-9885.	3.1	10
46	Real-Time Equation-of-Motion CCSD Cumulant Greenâ€™s Function. Journal of Chemical Theory and Computation, 2022, 18, 1799-1807.	5.3	10
47	Probing electronic structure of stoichiometric and defective <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Sn</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2017, 95, .	3.2	9
48	Nonlinear response in the cumulant expansion for core-level photoemission. Physical Review Research, 2020, 2, .	3.6	9
49	Extended X-Ray Absorption Fine Structure of ZrW2O8: Theory vs. Experiment. Frontiers in Chemistry, 2018, 6, 356.	3.6	8
50	Equation-of-Motion Coupled-Cluster Cumulant Greenâ€™s Function for Excited States and X-Ray Spectra. Frontiers in Chemistry, 2021, 9, 734945.	3.6	8
51	Exchange and correlation in finite-temperature TDDFT. European Physical Journal B, 2018, 91, 1.	1.5	7
52	Quantitative first-principles calculations of valence and core excitation spectra of solid<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">C</mml:mi><mml:mn>60</mml:mn></mml:msub></mml:math>. Physical Review B, 2017, 95, .	3.2	6
53	Corvus: a framework for interfacing scientific software for spectroscopic and materials science applications. Journal of Synchrotron Radiation, 2019, 26, 1694-1704.	2.4	5
54	Inelastic Losses and Multi-Electron Excitations in X-Ray Spectra. AIP Conference Proceedings, 2007, , .	0.4	3

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55	The effect of self-consistent potentials on EXAFS analysis. Journal of Synchrotron Radiation, 2017, 24, 1173-1179.	2.4	3
56	Web-based methods for X-ray and photoelectron spectroscopies. Computational Materials Science, 2021, 200, 110814.	3.0	3
57	Ab initio calculation of X-ray and related core-level spectroscopies: Green's function approaches. Physical Chemistry Chemical Physics, 2022, 24, 13461-13473.	2.8	3
58	Theory and Parameter Free Calculations of EELS and X-ray Spectra. Microscopy and Microanalysis, 2016, 22, 1408-1409.	0.4	1
59	Correlative Structure-Bonding and Stability Studies of Pt/Î³-Al2O3 Catalysts. Microscopy and Microanalysis, 2018, 24, 1644-1645.	0.4	1
60	Determination of the Crystal Structure of Gamma-Alumina by Electron Diffraction and Electron Energy-Loss Spectroscopy. Microscopy and Microanalysis, 2019, 25, 2036-2037.	0.4	1
61	Comparison of Spinel and Monoclinic Crystal Structures of Î³-Al2O3 for Simulation of Electron Energy Loss Spectra. Microscopy and Microanalysis, 2017, 23, 2020-2021.	0.4	0
62	Cumulant Approach for Inelastic Losses in X-ray Spectra. Springer Proceedings in Physics, 2018, , 375-380.	0.2	0
63	Noble-metal dark-edge fermiology: Centrifugal barriers, core-hole memory, and the Zeeman Auger effect. Physical Review B, 2021, 104, .	3.2	0
64	Greenâ€™s function methods for excited states and x-ray spectra of functional materials. Electronic Structure, 0, , .	2.8	0