

Philippe Wernet

List of Publications by Year in descending order

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111
papers

5,760
citations

94433

37
h-index

76900

74
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113
all docs

113
docs citations

113
times ranked

5496
citing authors

#	ARTICLE	IF	CITATIONS
1	Capturing Atom-Specific Electronic Structural Dynamics of Transition-Metal Complexes with Ultrafast Soft X-Ray Spectroscopy. <i>Annual Review of Physical Chemistry</i> , 2022, 73, 187-208.	10.8	6
2	Photoinduced bond oscillations in ironpentacarbonyl give delayed synchronous bursts of carbonmonoxide release. <i>Nature Communications</i> , 2022, 13, 1337.	12.8	2
3	Electronic Structure Changes of an Aromatic Amine Photoacid along the Frster Cycle. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	6
4	Using X-ray free-electron lasers for spectroscopy of molecular catalysts and metalloenzymes. <i>Nature Reviews Physics</i> , 2021, 3, 264-282.	26.6	60
5	Resonant X-ray emission spectroscopy from broadband stochastic pulses at an X-ray free electron laser. <i>Communications Chemistry</i> , 2021, 4, .	4.5	4
6	Following Metal-to-Ligand Charge-Transfer Dynamics with Ligand and Spin Specificity Using Femtosecond Resonant Inelastic X-ray Scattering at the Nitrogen K-Edge. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 6676-6683.	4.6	12
7	Resonant Inelastic X-ray Scattering (RIXS) Studies in Chemistry: Present and Future. , 2020, , 2315-2366.		3
8	Deciphering Photoacidity by Following Electronic Charge Distribution Changes along the Photoacid Frster Cycle with Time-Resolved Nitrogen K-Edge X-Ray Absorption Spectroscopy. , 2020, , .		0
9	Chemical interactions and dynamics with femtosecond X-ray spectroscopy and the role of X-ray free-electron lasers. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2019, 377, 20170464.	3.4	31
10	Resonant Inelastic X-ray Scattering (RIXS) Studies in Chemistry: Present and Future. , 2019, , 1-52.		2
11	Fingerprints of electronic, spin and structural dynamics from resonant inelastic soft X-ray scattering in transient photo-chemical species. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 7243-7253.	2.8	25
12	Direct Determination of Absolute Absorption Cross Sections at the L-Edge of Dilute Mn Complexes in Solution Using a Transmission Flatjet. <i>Inorganic Chemistry</i> , 2018, 57, 5449-5462.	4.0	32
13	Time-resolved electron spectroscopy for chemical analysis of photodissociation: Photoelectron spectra of Fe(CO) ₅ , Fe(CO) ₄ , and Fe(CO) ₃ . <i>Journal of Chemical Physics</i> , 2018, 149, 044307.	3.0	20
14	Soft X-ray Spectroscopy of the Amine Group: Hydrogen Bond Motifs in Alkylamine/Alkylammonium Acid-Base Pairs. <i>Journal of Physical Chemistry B</i> , 2018, 122, 7737-7746.	2.6	22
15	Cr L-Edge X-ray Absorption Spectroscopy of Cr ^{III} (acac) ₃ in Solution with Measured and Calculated Absolute Absorption Cross Sections. <i>Journal of Physical Chemistry B</i> , 2018, 122, 7375-7384.	2.6	18
16	Probing the oxidation state of transition metal complexes: a case study on how charge and spin densities determine Mn L-edge X-ray absorption energies. <i>Chemical Science</i> , 2018, 9, 6813-6829.	7.4	60
17	X-ray-induced sample damage at the Mn L-edge: a case study for soft X-ray spectroscopy of transition metal complexes in solution. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 16817-16827.	2.8	23
18	Disentangling Transient Charge Density and Metal-Ligand Covalency in Photoexcited Ferricyanide with Femtosecond Resonant Inelastic Soft X-ray Scattering. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 3538-3543.	4.6	42

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19	Quantifying covalent interactions with resonant inelastic soft X-ray scattering: Case study of Ni ²⁺ aqua complex. <i>Chemical Physics Letters</i> , 2017, 669, 196-201.	2.6	4
20	Communication: Direct evidence for sequential dissociation of gas-phase Fe(CO) ₅ via a singlet pathway upon excitation at 266 nm. <i>Journal of Chemical Physics</i> , 2017, 146, 211103.	3.0	14
21	Iron L-Edge Absorption Spectroscopy of Iron Pentacarbonyl and Ferrocene in the Gas Phase. <i>Journal of Physical Chemistry A</i> , 2017, 121, 66-72.	2.5	19
22	Soft x-ray absorption spectroscopy of metalloproteins and high-valent metal-complexes at room temperature using free-electron lasers. <i>Structural Dynamics</i> , 2017, 4, 054307.	2.3	34
23	Aqueous Solvation of Ammonia and Ammonium: Probing Hydrogen Bond Motifs with FT-IR and Soft X-ray Spectroscopy. <i>Journal of the American Chemical Society</i> , 2017, 139, 12773-12783.	13.7	65
24	Time-resolved soft X-ray absorption spectroscopy in transmission mode on liquids at MHz repetition rates. <i>Structural Dynamics</i> , 2017, 4, 054902.	2.3	47
25	Cationic and Anionic Impact on the Electronic Structure of Liquid Water. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 3759-3764.	4.6	26
26	Chemical and Bio-chemical X-ray Spectroscopy at Current and Future X-ray Lasers. , 2017, , .		0
27	Taking snapshots of photosynthetic water oxidation with an X-ray laser. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2017, 73, C14-C14.	0.1	0
28	X-ray absorption spectroscopy using a self-seeded soft X-ray free-electron laser. <i>Optics Express</i> , 2016, 24, 22469.	3.4	19
29	Isotope effects in liquid water probed by transmission mode x-ray absorption spectroscopy at the oxygen K-edge. <i>Journal of Chemical Physics</i> , 2016, 145, 104502.	3.0	12
30	Structure of photosystem II and substrate binding at room temperature. <i>Nature</i> , 2016, 540, 453-457.	27.8	323
31	Viewing the Valence Electronic Structure of Ferric and Ferrous Hexacyanide in Solution from the Fe and Cyanide Perspectives. <i>Journal of Physical Chemistry B</i> , 2016, 120, 7182-7194.	2.6	76
32	Anti-Stokes resonant x-ray Raman scattering for atom specific and excited state selective dynamics. <i>New Journal of Physics</i> , 2016, 18, 103011.	2.9	14
33	Identification of the dominant photochemical pathways and mechanistic insights to the ultrafast ligand exchange of Fe(CO) ₅ to Fe(CO) ₄ EtOH. <i>Structural Dynamics</i> , 2016, 3, 043204.	2.3	48
34	Probing photoelectron angular distributions in molecules with polarization-controlled two-color above-threshold ionization. <i>Physical Review A</i> , 2015, 91, .	2.5	8
35	A liquid flatjet system for solution phase soft-x-ray spectroscopy. <i>Structural Dynamics</i> , 2015, 2, 054301.	2.3	99
36	Ionic Solutions Probed by Resonant Inelastic X-ray Scattering. <i>Zeitschrift Fur Physikalische Chemie</i> , 2015, 229, 1855-1867.	2.8	13

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37	Correlating Infrared and X-ray Absorption Energies for Molecular-Level Insight into Hydrogen Bond Making and Breaking in Solution. <i>Journal of Physical Chemistry B</i> , 2015, 119, 8115-8124.	2.6	11
38	Orbital-specific mapping of the ligand exchange dynamics of Fe(CO) ₅ in solution. <i>Nature</i> , 2015, 520, 78-81.	27.8	247
39	X-ray emission spectroscopy of bulk liquid water in "no-man's land". <i>Journal of Chemical Physics</i> , 2015, 142, 044505.	3.0	32
40	Design and optimization of a parallel spectrometer for ultra-fast X-ray science. <i>Optics Express</i> , 2014, 22, 12583.	3.4	11
41	Temperature dependent soft x-ray absorption spectroscopy of liquids. <i>Review of Scientific Instruments</i> , 2014, 85, 103102.	1.3	37
42	Methods development for diffraction and spectroscopy studies of metalloenzymes at X-ray free-electron lasers. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2014, 369, 20130590.	4.0	23
43	Comment on "State-Dependent Electron Delocalization Dynamics at the Solute-Solvent Interface: Soft-X-ray Absorption Spectroscopy and Ab Initio Calculations". <i>Physical Review Letters</i> , 2014, 112, 129302.	7.8	5
44	Reabsorption of Soft X-Ray Emission at High X-Ray Free-Electron Laser Fluences. <i>Physical Review Letters</i> , 2014, 113, 153002.	7.8	33
45	State-dependent fluorescence yields through the core-valence Coulomb exchange parameter. <i>Physical Review A</i> , 2014, 89, .	2.5	9
46	Dynamics of the OH group and the electronic structure of liquid alcohols. <i>Structural Dynamics</i> , 2014, 1, 054901.	2.3	27
47	Probing the Hofmeister Effect with Ultrafast Core" Hole Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2014, 118, 9398-9403.	2.6	22
48	From Ligand Fields to Molecular Orbitals: Probing the Local Valence Electronic Structure of Ni ²⁺ in Aqueous Solution with Resonant Inelastic X-ray Scattering. <i>Journal of Physical Chemistry B</i> , 2013, 117, 16512-16521.	2.6	36
49	L-Edge X-ray Absorption Spectroscopy of Dilute Systems Relevant to Metalloproteins Using an X-ray Free-Electron Laser. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 3641-3647.	4.6	64
50	Time resolved resonant inelastic X-ray scattering: A supreme tool to understand dynamics in solids and molecules. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2013, 188, 172-182.	1.7	18
51	The confocal plane grating spectrometer at BESSY II. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2013, 188, 133-139.	1.7	9
52	A high-order harmonic generation apparatus for time- and angle-resolved photoelectron spectroscopy. <i>Review of Scientific Instruments</i> , 2013, 84, 075106.	1.3	71
53	Monochromatizing and focussing femtosecond high-order harmonic radiation with one optical element. <i>Review of Scientific Instruments</i> , 2013, 84, 103102.	1.3	7
54	Coherent wave packet dynamics in photo-excited NaI. <i>EPJ Web of Conferences</i> , 2013, 41, 02027.	0.3	1

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55	Mapping chemical bonding of reaction intermediates with femtosecond X-ray laser spectroscopy. EPJ Web of Conferences, 2013, 41, 05025.	0.3	3
56	A setup for resonant inelastic soft x-ray scattering on liquids at free electron laser light sources. Review of Scientific Instruments, 2012, 83, 123109.	1.3	70
57	Femtosecond Laser Excitation Drives Ferromagnetic Gadolinium out of Magnetic Equilibrium. Physical Review Letters, 2012, 109, 057401.	7.8	77
58	Dissecting Local Atomic and Intermolecular Interactions of Transition-Metal Ions in Solution with Selective X-ray Spectroscopy. Journal of Physical Chemistry Letters, 2012, 3, 3448-3453.	4.6	59
59	Ab Initio Calculations of X-ray Spectra: Atomic Multiplet and Molecular Orbital Effects in a Multiconfigurational SCF Approach to the L-Edge Spectra of Transition Metal Complexes. Journal of Physical Chemistry Letters, 2012, 3, 3565-3570.	4.6	168
60	Intrinsic deviations in fluorescence yield detected x-ray absorption spectroscopy: the case of the transition metal L _{2,3} edges. Journal of Physics Condensed Matter, 2012, 24, 452201.	1.8	47
61	Electronic structure in real time: mapping valence electron rearrangements during chemical reactions. Physical Chemistry Chemical Physics, 2011, 13, 16941.	2.8	31
62	A sample holder for soft x-ray absorption spectroscopy of liquids in transmission mode. Review of Scientific Instruments, 2011, 82, 103101.	1.3	63
63	Shot-to-shot and average absolute photon flux measurements of a femtosecond laser high-order harmonic photon source. New Journal of Physics, 2011, 13, 093003.	2.9	16
64	Femtosecond time-resolved photoelectron spectroscopy with a vacuum-ultraviolet photon source based on laser high-order harmonic generation. Review of Scientific Instruments, 2011, 82, 063114.	1.3	37
65	X-ray absorption spectroscopy and X-ray Raman scattering of water and ice; an experimental view. Journal of Electron Spectroscopy and Related Phenomena, 2010, 177, 99-129.	1.7	158
66	Real-Time Evolution of the Valence Electronic Structure in a Dissociating Molecule. Physical Review Letters, 2009, 103, 013001.	7.8	58
67	Time-resolved X-ray absorption spectroscopy of infrared-laser-induced temperature jumps in liquid water. Applied Physics A: Materials Science and Processing, 2009, 96, 11-18.	2.3	28
68	Ultrafast Temperature Jumps in Liquid Water Studied by Infrared-Pump and X-ray Absorption-Probe Spectroscopy. Springer Series in Chemical Physics, 2009, , 505-507.	0.2	2
69	Structure and dynamics in liquid water from x-ray absorption spectroscopy. Journal of Physics: Conference Series, 2009, 190, 012055.	0.4	2
70	First Step Towards a Femtosecond VUV Microscope: Zone Plate Optics as Monochromator for High-Order Harmonics.. Springer Series in Chemical Physics, 2009, , 884-886.	0.2	0
71	Ultrafast temperature jump in liquid water studied by a novel infrared pump-x-ray probe technique. Applied Physics A: Materials Science and Processing, 2008, 92, 511-516.	2.3	46
72	Term-dependent lifetime broadening effect on the 4d photoelectron spectrum of atomic thulium. Journal of Physics B: Atomic, Molecular and Optical Physics, 2008, 41, 215002.	1.5	19

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73	Selection of a single femtosecond high-order harmonic using a zone plate based monochromator. Journal of Applied Physics, 2008, 104, .	2.5	11
74	Nearest-neighbor oxygen distances in liquid water and ice observed by x-ray Raman based extended x-ray absorption fine structure. Journal of Chemical Physics, 2007, 127, 174504.	3.0	118
75	Isotope effects in liquid water probed by x-ray Raman spectroscopy. Physical Review B, 2007, 76, .	3.2	72
76	Strong influence of configuration interactions on the orientation and alignment dichroism in the 3p photoelectron spectra of free laser-polarized Fe atoms. Physical Review A, 2007, 75, .	2.5	4
77	Femtosecond VUV Photon Pulses for Time-resolved Photoelectron Spectroscopy. Springer Series in Chemical Physics, 2007, , 45-47.	0.2	2
78	Open shells and multi-electron interactions: core level photoionization of the 3d metal atoms. Journal of Physics B: Atomic, Molecular and Optical Physics, 2006, 39, R79-R125.	1.5	80
79	The local structure of protonated water from x-ray absorption and density functional theory. Journal of Chemical Physics, 2006, 124, 194508.	3.0	49
80	Comment on "Energetics of Hydrogen Bond Network Rearrangements in Liquid Water". Science, 2005, 308, 793a-793a.	12.6	90
81	Spectroscopic characterization of microscopic hydrogen-bonding disparities in supercritical water. Journal of Chemical Physics, 2005, 123, 154503.	3.0	79
82	The hydrogen bond in ice probed by soft x-ray spectroscopy and density functional theory. Journal of Chemical Physics, 2005, 122, 154505.	3.0	79
83	X-ray Absorption Spectroscopy Study of the Hydrogen Bond Network in the Bulk Water of Aqueous Solutions. Journal of Physical Chemistry A, 2005, 109, 5995-6002.	2.5	156
84	X-ray Absorption Spectroscopy Measurements of Liquid Water. Journal of Physical Chemistry B, 2005, 109, 13835-13839.	2.6	120
85	Compton profiles for water and mixed water-neon clusters: A measure of coordination. Physical Review B, 2004, 70, .	3.2	30
86	Surface structure of thin ice films. Chemical Physics Letters, 2004, 395, 161-165.	2.6	66
87	The Structure of the First Coordination Shell in Liquid Water. Science, 2004, 304, 995-999.	12.6	1,287
88	Direct Evidence of Orbital Mixing between Water and Solvated Transition-Metal Ions: An Oxygen 1s XAS and DFT Study of Aqueous Systems. Journal of Physical Chemistry A, 2003, 107, 6869-6876.	2.5	67
89	Determination of the \hat{L}^2 parameter for atomic Mn and Cr 2p photoemission: A benchmark test for core-electron photoionization theories. Physical Review A, 2003, 68, .	2.5	6
90	Linear dichroism of the 4f photoemission in the giant resonance of atomic europium. Physical Review A, 2003, 67, .	2.5	5

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91	Photoionization studies of the 2p resonances of atomic calcium. <i>Physical Review A</i> , 2002, 65, .	2.5	4
92	Core-hole-induced degeneracy of the valence subshells in the 5p photoemission of atomic europium. <i>Physical Review A</i> , 2002, 65, .	2.5	7
93	X-ray Raman spectroscopy at the oxygen K edge of water and ice: σ Implications on local structure models. <i>Physical Review B</i> , 2002, 66, .	3.2	101
94	Combining high-resolution photoelectron spectroscopy and laser polarization for a study of the 4f and 5p photoionization of atomic thulium. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2002, 35, 3887-3900.	1.5	9
95	Linear dichroism in the 4d photoionization of atomic europium. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2002, 35, 907-916.	1.5	7
96	Spectroscopic probing of local hydrogen-bonding structures in liquid water. <i>Journal of Physics Condensed Matter</i> , 2002, 14, L213-L219.	1.8	262
97	2p photoelectron spectra and linear alignment dichroism of atomic Cr. <i>Physical Review A</i> , 2001, 64, .	2.5	35
98	Multiplet splitting and valence-shell recoupling in the core-level 2p photoelectron spectrum of atomic Mn and of Mn compounds. <i>Physical Review A</i> , 2001, 63, .	2.5	30
99	Resonant 3p photoelectron spectroscopy of free Cu atoms. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2000, 33, 1563-1573.	1.5	6
100	Multiplet and lifetime effects in the 4d photoelectron spectrum of Eu. <i>Physical Review A</i> , 2000, 61, .	2.5	26
101	Core-valence interactions in the linear dichroism of Cr 2p photoelectron spectra. <i>Physical Review B</i> , 2000, 62, 14331-14336.	3.2	18
102	Suppression of the low-spin multiplet components in the 3p photoelectron spectra of atomic and solid 3d metals. <i>Physical Review A</i> , 2000, 62, .	2.5	54
103	Metastable state contributions to the measured 3p photoabsorption spectrum of Cr ⁺ ions in a laser-produced plasma. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1999, 32, L583-L591.	1.5	49
104	vuv photoionization of uv-laser-tailored Ni-like Cu 3d ⁹ atoms. <i>Physical Review A</i> , 1999, 60, R737-R740.	2.5	6
105	Breakdown of the three-parameter model for the dichroism in the 4f photoelectron spectrum of laser-aligned Eu atoms. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1999, 32, 4079-4090.	1.5	8
106	Magnetic dichroism in the 4f photoelectron spectra of free Eu atoms: Experimental proof of the atomic character of thin film Eu ²⁺ /Gd MCD. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 1999, 101-103, 179-183.	1.7	7
107	High resolution spectroscopy of 2p ₆ 2p ₅ 3d resonantly excited atomic Ca. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 1999, 101-103, 39-42.	1.7	7
108	Determination of Ca 2p ionization thresholds by high-resolution photoelectron spectroscopy. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1998, 31, L289-L296.	1.5	5

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109	A complete photoionization experiment with polarized atoms using magnetic dichroism and phase tilt measurements. <i>Physical Review A</i> , 1998, 58, R3371-R3374.	2.5	31
110	Valence satellite and 3p photoelectron spectra of atomic Fe and Cu. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1998, 31, 2539-2547.	1.5	22
111	Electronic Structure Changes of an Aromatic Amine Photoacid along the Förster Cycle. <i>Angewandte Chemie</i> , 0, , .	2.0	0