

Wojciech M Gawelda

List of Publications by Year in descending order

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74
papers

4,725
citations

126708

33
h-index

95083

68
g-index

79
all docs

79
docs citations

79
times ranked

4029
citing authors

#	ARTICLE	IF	CITATIONS
1	Unveiling the origin of photo-induced enhancement of oxidation catalysis at Mo(<i>vi</i>) centres of Ru(<i>ii</i>)–Mo(<i>vi</i>) dyads. <i>Chemical Communications</i> , 2021, 57, 4142-4145.	2.2	2
2	Site-Selective Real-Time Observation of Bimolecular Electron Transfer in a Photocatalytic System Using Edge X-ray Absorption Spectroscopy**. <i>ChemPhysChem</i> , 2021, 22, 693-700.	1.0	5
3	Fundamental Characterization, Photophysics and Photocatalysis of a Base Metal Iron(II)–Cobalt(III) Dyad. <i>Chemistry - A European Journal</i> , 2021, 27, 9905-9918.	1.7	12
4	Spin cascade and doming in ferric hemes: Femtosecond X-ray absorption and X-ray emission studies. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 21914-21920.	3.3	27
5	Femtosecond X-ray emission study of the spin cross-over dynamics in haem proteins. <i>Nature Communications</i> , 2020, 11, 4145.	5.8	29
6	Exploring the light-induced dynamics in solvated metallogrid complexes with femtosecond pulses across the electromagnetic spectrum. <i>Journal of Chemical Physics</i> , 2020, 152, 214301.	1.2	10
7	Direct observation of nuclear reorganization driven by ultrafast spin transitions. <i>Nature Communications</i> , 2020, 11, 1530.	5.8	20
8	Ultrafast X-ray Photochemistry at European XFEL: Capabilities of the Femtosecond X-ray Experiments (FXE) Instrument. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 995.	1.3	35
9	Revealing Hot and Long-Lived Metastable Spin States in the Photoinduced Switching of Solvated Metallogrid Complexes with Femtosecond Optical and X-ray Spectroscopies. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 2133-2141.	2.1	11
10	Femtosecond Molecular Flattening in [Cu(dmp) ₂] ⁺ Probed by X-ray Emission Spectroscopy and Solution Scattering. , 2020, , .		0
11	Using Ultrafast X-ray Spectroscopy To Address Questions in Ligand-Field Theory: The Excited State Spin and Structure of [Fe(dcpp) ₂] ²⁺ . <i>Inorganic Chemistry</i> , 2019, 58, 9341-9350.	1.9	29
12	Elucidation of the photoaquation reaction mechanism in ferrous hexacyanide using synchrotron x-rays with sub-pulse-duration sensitivity. <i>Journal of Chemical Physics</i> , 2019, 151, 144306.	1.2	24
13	Tracking multiple components of a nuclear wavepacket in photoexcited Cu(I)-phenanthroline complex using ultrafast X-ray spectroscopy. <i>Nature Communications</i> , 2019, 10, 3606.	5.8	56
14	Combining X-ray K _L ² , valence-to-core, and X-ray Raman spectroscopy for studying Earth materials at high pressure and temperature: the case of siderite. <i>Journal of Analytical Atomic Spectrometry</i> , 2019, 34, 384-393.	1.6	17
15	Ultrafast spin crossover in a single crystal. <i>EPJ Web of Conferences</i> , 2019, 205, 07009.	0.1	0
16	Scientific instrument Femtosecond X-ray Experiments (FXE): instrumentation and baseline experimental capabilities. <i>Journal of Synchrotron Radiation</i> , 2019, 26, 1432-1447.	1.0	24
17	Revealing hole trapping in zinc oxide nanoparticles by time-resolved X-ray spectroscopy. <i>Nature Communications</i> , 2018, 9, 478.	5.8	84
18	Towards Noble-Metal-Free Dyads: Ground and Excited State Tuning by a Cobalt Dimethylglyoxime Motif Connected to an Iron N-Heterocyclic Carbene Photosensitizer. <i>European Journal of Inorganic Chemistry</i> , 2018, 2018, 5203-5214.	1.0	19

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19	Probing Transient Valence Orbital Changes with Picosecond Valence-to-Core X-ray Emission Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2017, 121, 2620-2626.	1.5	27
20	Finite difference method accelerated with sparse solvers for structural analysis of the metal-organic complexes. <i>Journal of Physics: Conference Series</i> , 2016, 712, 012004.	0.3	24
21	Spectral Signatures of Ultrafast Spin Crossover in Single Crystal [Fe ^{II} (bpy) ₃](PF ₆) ₂ . <i>Chemistry - A European Journal</i> , 2016, 22, 5118-5122.	1.7	24
22	Atomistic characterization of the active-site solvation dynamics of a model photocatalyst. <i>Nature Communications</i> , 2016, 7, 13678.	5.8	74
23	Time-resolved pump and probe x-ray absorption fine structure spectroscopy at beamline P11 at PETRA III. <i>Review of Scientific Instruments</i> , 2016, 87, 053116.	0.6	24
24	Femtosecond X-Ray Scattering Study of Ultrafast Photoinduced Structural Dynamics in Solvated Co^{2+} [Co(terpy) ₂] ²⁺ . <i>Journal of Physical Chemistry B</i> , 2016, 120, 1158-1168.	2.9	86
25	A multi-MHz single-shot data acquisition scheme with high dynamic range: pump-probe X-ray experiments at synchrotrons. <i>Journal of Synchrotron Radiation</i> , 2016, 23, 1409-1423.	1.0	12
26	Observing Solvation Dynamics with Simultaneous Femtosecond X-ray Emission Spectroscopy and X-ray Scattering. <i>Journal of Physical Chemistry B</i> , 2016, 120, 1158-1168.	1.2	85
27	Femtosecond X-ray Absorption and Emission Spectroscopy on ZnO Nanoparticles in Solution. , 2016, , .		0
28	Synchrotron and X-Ray Free Electron Laser Studies of High-Valent Iron Formation with X-ray Absorption Spectroscopy. , 2016, , .		0
29	Visualizing the non-equilibrium dynamics of photoinduced intramolecular electron transfer with femtosecond X-ray pulses. <i>Nature Communications</i> , 2015, 6, 6359.	5.8	134
30	Feasibility of Valence-to-Core X-ray Emission Spectroscopy for Tracking Transient Species. <i>Journal of Physical Chemistry C</i> , 2015, 119, 14571-14578.	1.5	40
31	Optimized Finite Difference Method for the Full-Potential XANES Simulations: Application to Molecular Adsorption Geometries in MOFs and Metal-Ligand Intersystem Crossing Transients. <i>Journal of Chemical Theory and Computation</i> , 2015, 11, 4512-4521.	2.3	179
32	Detailed Characterization of a Nanosecond-Lived Excited State: X-ray and Theoretical Investigation of the Quintet State in Photoexcited [Fe(terpy) ₂] ²⁺ . <i>Journal of Physical Chemistry C</i> , 2015, 119, 5888-5902.	1.5	72
33	Solvation dynamics monitored by combined X-ray spectroscopies and scattering: photoinduced spin transition in aqueous [Fe(bpy) ₃] ²⁺ . <i>Faraday Discussions</i> , 2014, 171, 169-178.	1.6	17
34	Tracking excited-state charge and spin dynamics in iron coordination complexes. <i>Nature</i> , 2014, 509, 345-348.	13.7	382
35	Spin-state studies with XES and RIXS: From static to ultrafast. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2013, 188, 166-171.	0.8	87
36	Femtosecond X-ray Absorption Spectroscopy at a Hard X-ray Free Electron Laser: Application to Spin Crossover Dynamics. <i>Journal of Physical Chemistry A</i> , 2013, 117, 735-740.	1.1	183

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37	Ad-hoc design of temporally shaped fs laser pulses based on plasma dynamics for deep ablation in fused silica. <i>Applied Physics A: Materials Science and Processing</i> , 2013, 112, 185-189.	1.1	14
38	Toward Highlighting the Ultrafast Electron Transfer Dynamics at the Optically Dark Sites of Photocatalysts. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 1972-1976.	2.1	49
39	Guest-Host Interactions Investigated by Time-Resolved X-ray Spectroscopies and Scattering at MHz Rates: Solvation Dynamics and Photoinduced Spin Transition in Aqueous Fe(bipy) ₃ ²⁺ . <i>Journal of Physical Chemistry A</i> , 2012, 116, 9878-9887.	1.1	112
40	Coherent optical phonons in different phases of Ge ₂ Sb ₂ Te ₅ upon strong laser excitation. <i>Applied Physics Letters</i> , 2011, 98, 251906.	1.5	23
41	Dynamics of laser-induced phase switching in GeTe films. <i>Journal of Applied Physics</i> , 2011, 109, 123102.	1.1	33
42	Light-induced spin crossover in Fe(II)-based complexes: The full photocycle unraveled by ultrafast optical and X-ray spectroscopies. <i>Coordination Chemistry Reviews</i> , 2010, 254, 2677-2686.	9.5	246
43	Dynamics of plasma formation, relaxation, and topography modification induced by femtosecond laser pulses in crystalline and amorphous dielectrics. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2010, 27, 1065.	0.9	105
44	In situ assessment and minimization of nonlinear propagation effects for femtosecond-laser waveguide writing in dielectrics. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2010, 27, 1688.	0.9	27
45	Femtosecond X-ray Absorption Spectroscopy of a Light-Driven Spin-Crossover Process. <i>Acta Physica Polonica A</i> , 2010, 117, 391-393.	0.2	2
46	Structural analysis of ultrafast extended x-ray absorption fine structure with subpicometer spatial resolution: Application to spin crossover complexes. <i>Journal of Chemical Physics</i> , 2009, 130, 124520.	1.2	67
47	Hot-wire chemical vapor growth and characterization of crystalline GeTe films. <i>Journal of Crystal Growth</i> , 2009, 311, 362-367.	0.7	11
48	Effect of pulsed laser irradiation on the structure of GeTe films deposited by metal organic chemical vapor deposition: A Raman spectroscopy study. <i>Journal of Applied Physics</i> , 2009, 105, .	1.1	12
49	Independent control of beam astigmatism and ellipticity using a SLM for fs-laser waveguide writing. <i>Optics Express</i> , 2009, 17, 20853.	1.7	28
50	Femtosecond XANES Study of the Light-Induced Spin Crossover Dynamics in an Iron(II) Complex. <i>Science</i> , 2009, 323, 489-492.	6.0	497
51	Time-resolved x-ray absorption spectroscopy: Watching atoms dance. <i>Journal of Physics: Conference Series</i> , 2009, 190, 012052.	0.3	9
52	Retrieving photochemically active structures by time-resolved EXAFS spectroscopy. <i>Journal of Physics: Conference Series</i> , 2009, 190, 012054.	0.3	3
53	Transient reflectivity and transmission changes during plasma formation and ablation in fused silica induced by femtosecond laser pulses. <i>Applied Physics A: Materials Science and Processing</i> , 2008, 92, 803-808.	1.1	42
54	Chemical vapor deposition of chalcogenide materials for phase-change memories. <i>Microelectronic Engineering</i> , 2008, 85, 2338-2341.	1.1	20

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55	Amorphization dynamics of Ge ₂ Sb ₂ Te ₅ films upon nano- and femtosecond laser pulse irradiation. <i>Journal of Applied Physics</i> , 2008, 103, .	1.1	92
56	Hot-Wire Chemical Vapor Deposition of Chalcogenide Materials for Phase Change Memory Applications. <i>Chemistry of Materials</i> , 2008, 20, 3557-3559.	3.2	33
57	Ultrafast imaging of transient electronic plasmas produced in conditions of femtosecond waveguide writing in dielectrics. <i>Applied Physics Letters</i> , 2008, 93, .	1.5	51
58	Relaxation processes of point defects in vitreous silica from femtosecond to nanoseconds. <i>Applied Physics Letters</i> , 2008, 93, 102901.	1.5	3
59	Light-Induced Spin Crossover Probed by Ultrafast Optical and X-ray Spectroscopies. <i>Chimia</i> , 2007, 61, 179-183.	0.3	15
60	Ultrafast x-ray spectroscopy for structural dynamics studies in chemistry and biology. <i>Proceedings of SPIE</i> , 2007, , .	0.8	1
61	Plasma formation and structural modification below the visible ablation threshold in fused silica upon femtosecond laser irradiation. <i>Applied Physics Letters</i> , 2007, 91, .	1.5	56
62	Observation of the Solvent Shell Reorganization around Photoexcited Atomic Solutes by Picosecond X-ray Absorption Spectroscopy. <i>Journal of the American Chemical Society</i> , 2007, 129, 1530-1531.	6.6	62
63	Ultrafast Nonadiabatic Dynamics of [Fe(II)(bpy) ₃] ²⁺ in Solution. <i>Journal of the American Chemical Society</i> , 2007, 129, 8199-8206.	6.6	303
64	Structural Determination of a Short-Lived Excited Iron(II) Complex by Picosecond X-Ray Absorption Spectroscopy. <i>Physical Review Letters</i> , 2007, 98, 057401.	2.9	204
65	Observing molecular structure changes and dynamics in polar solution. , 2007, , 689-731.		1
66	Photexcitation of Aqueous Ruthenium(II)-tris-(2,2'-bipyridine) with High-Intensity Femtosecond Laser Pulses. <i>Journal of Physical Chemistry B</i> , 2006, 110, 26497-26505.	1.2	64
67	A Full Multiple Scattering Model for the Analysis of Time-Resolved X-ray Difference Absorption Spectra. <i>Journal of Physical Chemistry B</i> , 2006, 110, 14035-14039.	1.2	41
68	Electronic and Molecular Structure of Photoexcited [Ru(II)(bpy) ₃] ²⁺ Probed by Picosecond X-ray Absorption Spectroscopy. <i>Journal of the American Chemical Society</i> , 2006, 128, 5001-5009.	6.6	165
69	Broadband Femtosecond Fluorescence Spectroscopy of [Ru(bpy) ₃] ²⁺ . <i>Angewandte Chemie - International Edition</i> , 2006, 45, 3174-3176.	7.2	251
70	Picosecond TimeResolved XRay Absorption Spectroscopy of Solvated Organometallic Complexes. <i>Physica Scripta</i> , 2005, , 102.	1.2	31
71	A setup for ultrafast time-resolved x-ray absorption spectroscopy. <i>Review of Scientific Instruments</i> , 2004, 75, 24-30.	0.6	91
72	Structural dynamics and electronic structure changes probed with lasers and X-rays. , 2004, , 353-361.		0

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73	Time resolved dynamics of rapid melting and resolidification of Sb thin films under ns and ps laser pulse irradiation. Journal of Applied Physics, 2003, 94, 4961.	1.1	6
74	Ultrafast time-resolved X-ray absorption spectroscopy of chemical systems. Synchrotron Radiation News, 2003, 16, 12-20.	0.2	24