Chris J Milne

List of Publications by Year
in descending order

135 papers	5,510 citations	87888 38 h-index	85541 71 g-index
142 all docs	142 docs citations	142 times ranked	6361 citing authors

#	Article	IF	Citations
1	Femtosecond XANES Study of the Light-Induced Spin Crossover Dynamics in an Iron(II) Complex. Science, 2009, 323, 489-492.	12.6	497
2	Retinal isomerization in bacteriorhodopsin captured by a femtosecond x-ray laser. Science, 2018, 361, .	12.6	285
3	SwissFEL: The Swiss X-ray Free Electron Laser. Applied Sciences (Switzerland), 2017, 7, 720.	2.5	272
4	Light-induced spin crossover in Fe(II)-based complexes: The full photocycle unraveled by ultrafast optical and X-ray spectroscopies. Coordination Chemistry Reviews, 2010, 254, 2677-2686.	18.8	246
5	Short-wavelength free-electron laser sources and science: a review. Reports on Progress in Physics, 2017, 80, 115901.	20.1	183
6	Recent experimental and theoretical developments in time-resolved X-ray spectroscopies. Coordination Chemistry Reviews, 2014, 277-278, 44-68.	18.8	161
7	Charge migration and charge transfer in molecular systems. Structural Dynamics, 2017, 4, 061508.	2.3	146
8	A compact and cost-effective hard X-ray free-electron laser driven by a high-brightness and low-energy electron beam. Nature Photonics, 2020, 14, 748-754.	31.4	140
9	Nanoscale Depth-Resolved Coherent Femtosecond Motion in Laser-Excited Bismuth. Physical Review Letters, 2008, 100, 155501.	7.8	136
10	Directly Observing Squeezed Phonon States with Femtosecond X-Ray Diffraction. Physical Review Letters, 2009, 102, 175503.	7.8	122
11	Structural Determination of a Photochemically Active Diplatinum Molecule by Timeâ€Resolved EXAFS Spectroscopy. Angewandte Chemie - International Edition, 2009, 48, 2711-2714.	13.8	116
12	Femtosecond-to-millisecond structural changes in a light-driven sodium pump. Nature, 2020, 583, 314-318.	27.8	115
13	Nonthermal Melting of a Charge Density Wave in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>TiSe</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math>. Physical Review Letters, 2011, 107, 036403.	7.8	114
14	Solvent-Induced Luminescence Quenching: Static and Time-Resolved X-Ray Absorption Spectroscopy of a Copper(I) Phenanthroline Complex. Journal of Physical Chemistry A, 2013, 117, 4591-4601.	2.5	111
15	Ultrafast Structural Phase Transition Driven by Photoinduced Melting of Charge and Orbital Order. Physical Review Letters, 2009, 103, 155702.	7.8	108
16	A high-repetition rate scheme for synchrotron-based picosecond laser pump/x-ray probe experiments on chemical and biological systems in solution. Review of Scientific Instruments, 2011, 82, 063111.	1.3	103
17	Picosecond Timeâ€Resolved Xâ€Ray Emission Spectroscopy: Ultrafast Spinâ€State Determination in an Iron Complex. Angewandte Chemie - International Edition, 2010, 49, 5910-5912.	13.8	99
18	Diffractive optics-based six-wave mixing: Heterodyne detection of the full Ï‡(5) tensor of liquid CS2. Journal of Chemical Physics, 2002, 116, 2016-2042.	3.0	96

#	Article	IF	Citations
19	Mapping of the Photoinduced Electron Traps in TiO₂ by Picosecond Xâ€ray Absorption Spectroscopy. Angewandte Chemie - International Edition, 2014, 53, 5858-5862.	13.8	92
20	Structural and Magnetic Dynamics of a Laser Induced Phase Transition in FeRh. Physical Review Letters, 2012, 108, 087201.	7.8	91
21	Revealing hole trapping in zinc oxide nanoparticles by time-resolved X-ray spectroscopy. Nature Communications, 2018, 9, 478.	12.8	84
22	Probing the Transition from Hydrophilic to Hydrophobic Solvation with Atomic Scale Resolution. Journal of the American Chemical Society, 2011, 133, 12740-12748.	13.7	71
23	Lipidic cubic phase injector is a viable crystal delivery system for time-resolved serial crystallography. Nature Communications, 2016, 7, 12314.	12.8	71
24	Direct observation of charge separation on Au localized surface plasmons. Energy and Environmental Science, 2013, 6, 3584.	30.8	70
25	Diffractive optics based two-color six-wave mixing: phase contrast heterodyne detection of the fifth order Raman response of liquids. Chemical Physics Letters, 2000, 327, 334-342.	2.6	67
26	Fifth-order two-dimensional Raman spectroscopy: A new direct probe of the liquid state. International Reviews in Physical Chemistry, 2003, 22, 497-532.	2.3	63
27	X-ray Absorption Spectroscopy of Ground and Excited Rheniumâ€“Carbonylâ€“Diimine Complexes: Evidence for a Two-Center Electron Transfer. Journal of Physical Chemistry A, 2013, 117, 361-369.	2.5	63
28	Diffractive optics implementation of six-wave mixing. Optics Letters, 2000, 25, 853.	3.3	59
29	The solvent shell structure of aqueous iodide: X-ray absorption spectroscopy and classical, hybrid QM/MM and full quantum molecular dynamics simulations. Chemical Physics, 2010, 371, 24-29.	1.9	56
30	Tracking multiple components of a nuclear wavepacket in photoexcited Cu(I)-phenanthroline complex using ultrafast X-ray spectroscopy. Nature Communications, 2019, 10, 3606.	12.8	56
31	L-edge XANES analysis of photoexcited metal complexes in solution. Physical Chemistry Chemical Physics, 2010, 12, 5551.	2.8	50
32	Photooxidation and photoaquation of iron hexacyanide in aqueous solution: A picosecond X-ray absorption study. Structural Dynamics, 2014, 1, 024901.	2.3	49
33	Probing wavepacket dynamics using ultrafast x-ray spectroscopy. Journal of Physics B: Atomic, Molecular and Optical Physics, 2015, 48, 214001.	1.5	46
34	The role of Hartreeâ€“Fock exchange in the simulation of X-ray absorption spectra: A study of photoexcited. Chemical Physics Letters, 2013, 580, 179-184.	2.6	43
35	Re and Br X-ray Absorption Near-Edge Structure Study of the Ground and Excited States of [ReBr(CO)₃(bpy)] Interpreted by DFT and TD-DFT Calculations. Inorganic Chemistry, 2013, 52, 5775-5785.	4.0	43
36	Subsecond and in Situ Chemical Speciation of Pt/Al₂O₃ during Oxidationâ€“Reduction Cycles Monitored by High-Energy Resolution Off-Resonant X-ray Spectroscopy. Journal of the American Chemical Society, 2013, 135, 19071-19074.	13.7	43

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37	Establishing nonlinearity thresholds with ultraintense X-ray pulses. Scientific Reports, 2016, 6, 33292.	3.3	43
38	Dynamics and mechanism of a light-driven chloride pump. Science, 2022, 375, 845-851.	12.6	43
39	X-ray Spectroscopic Study of Solvent Effects on the Ferrous and Ferric Hexacyanide Anions. Journal of Physical Chemistry A, 2014, 118, 9411-9418.	2.5	42
40	Perspective: Opportunities for ultrafast science at SwissFEL. Structural Dynamics, 2017, 4, 061602.	2.3	40
41	Probing the electronic and geometric structure of ferric and ferrous myoglobins in physiological solutions by Fe K-edge absorption spectroscopy. Physical Chemistry Chemical Physics, 2014, 16, 1617-1631.	2.8	39
42	Non-equilibrium phonon dynamics studied by grazing-incidence femtosecond X-ray crystallography. Acta Crystallographica Section A: Foundations and Advances, 2010, 66, 157-167.	0.3	38
43	A wavelet analysis for the X-ray absorption spectra of molecules. Journal of Chemical Physics, 2013, 138, 014104.	3.0	38
44	Heterodyne detected fifth-order Raman response of liquid CS2: â€˜Dutch Crossâ€™ polarization. Chemical Physics Letters, 2003, 369, 635-642.	2.6	36
45	Communication: The electronic structure of matter probed with a single femtosecond hard x-ray pulse. Structural Dynamics, 2014, 1, 021101.	2.3	31
46	Hard X-ray transient grating spectroscopy on bismuth germanate. Nature Photonics, 2021, 15, 499-503.	31.4	31
47	NO binding kinetics in myoglobin investigated by picosecond Fe K-edge absorption spectroscopy. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 12922-12927.	7.1	30
48	Temperature-programmed reduction of NiO nanoparticles followed by time-resolved RIXS. Physical Chemistry Chemical Physics, 2014, 16, 7692.	2.8	29
49	Femtosecond X-ray emission study of the spin cross-over dynamics in haem proteins. Nature Communications, 2020, 11, 4145.	12.8	29
50	SwissFEL Aramis beamline photon diagnostics. Journal of Synchrotron Radiation, 2018, 25, 1238-1248.	2.4	29
51	Spin cascade and doming in ferric hemes: Femtosecond X-ray absorption and X-ray emission studies. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 21914-21920.	7.1	27
52	Full Reconstruction of a Crystal Unit Cell Structure during Coherent Femtosecond Motion. Physical Review Letters, 2009, 103, 205501.	7.8	26
53	Comparing the oscillation phase in optical pump-probe spectra to ultrafast x-ray diffraction in the metal-dielectric SrRuO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>/SrTiO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>	3.2	26
54	Temperature-dependent electron-phonon coupling in La<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>2</mml:mn><mml:mo>â^’</mml:mo><mml:mi>x</mml:mi></mml:mrow></mml:msub></mml:math>Sr<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mi>x</mml:mi></mml:msub></mml:math>CuO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:	3.2	26

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55	Quantum efficiency of technical metal photocathodes under laser irradiation of various wavelengths. Applied Physics A: Materials Science and Processing, 2013, 112, 647-661.	2.3	25
56	Advances in long-wavelength native phasing at X-ray free-electron lasers. IUCrJ, 2020, 7, 965-975.	2.2	25
57	Fifth-Order Raman Spectroscopy of Liquid Benzene:Â Experiment and Theoryâ€. Journal of Physical Chemistry B, 2006, 110, 19867-19876.	2.6	24
58	Following the dynamics of matter with femtosecond precision using the X-ray streaking method. Scientific Reports, 2015, 5, 7644.	3.3	24
59	Taking a snapshot of the triplet excited state of an OLED organometallic luminophore using X-rays. Nature Communications, 2020, 11, 2131.	12.8	24
60	THz streak camera method for synchronous arrival time measurement of two-color hard X-ray FEL pulses. Optics Express, 2017, 25, 2080.	3.4	23
61	Core-level nonlinear spectroscopy triggered by stochastic X-ray pulses. Nature Communications, 2019, 10, 4761.	12.8	23
62	Direct observation of non-fully-symmetric coherent optical phonons by femtosecond x-ray diffraction. Physical Review B, 2013, 87, .	3.2	22
63	Characterizing the Structure and Defect Concentration of ZnO Nanoparticles in a Colloidal Solution. Journal of Physical Chemistry C, 2014, 118, 19422-19430.	3.1	22
64	Time-resolved structural studies with serial crystallography: A new light on retinal proteins. Structural Dynamics, 2015, 2, 041718.	2.3	22
65	EXAFS Structural Determination of the Pt₂(P₂O₅H₂)₄^{4â€“} Anion in Solution. Chimia, 2008, 62, 287-290.	0.6	21
66	Ultrafast manipulation of hard x-rays by efficient Bragg switches. Applied Physics Letters, 2010, 96, .	3.3	20
67	Picosecond dynamics of laser-induced strain in graphite. Physical Review B, 2011, 84, .	3.2	19
68	Femtosecond dynamics of the structural transition in mixed valence manganites. Physical Review B, 2012, 86, .	3.2	19
69	Transient mid-IR study of electron dynamics in TiO2 conduction band. Analyst, The, 2013, 138, 1966.	3.5	19
70	Towards X-ray transient grating spectroscopy. Optics Letters, 2019, 44, 574.	3.3	17
71	Investigating DNA Radiation Damage Using X-Ray Absorption Spectroscopy. Biophysical Journal, 2016, 110, 1304-1311.	0.5	16
72	Light-Induced Spin Crossover Probed by Ultrafast Optical and X-ray Spectroscopies. Chimia, 2007, 61, 179-183.	0.6	15

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73	Identifying the major intermediate species by combining time-resolved X-ray solution scattering and X-ray absorption spectroscopy. Physical Chemistry Chemical Physics, 2015, 17, 23298-23302.	2.8	15
74	Nonlinear XUV-optical transient grating spectroscopy at the Si L2,3â€“edge. Applied Physics Letters, 2019, 114, 181101.	3.3	15
75	Studies on the interaction of selenite and selenium with sulphur donors. Part 5. Thiocyanate. Canadian Journal of Chemistry, 1996, 74, 1889-1895.	1.1	14
76	Tailoring interference and nonlinear manipulation of femtosecond x-rays. New Journal of Physics, 2012, 14, 013004.	2.9	14
77	Local structural changes in excited<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msup><mml:mrow><mml:mtext>Ti</mml:mtext></mml:mrow><mml:mrow><mml:mn>3+</mml:mn></mml:mrow></mml:msup></mml:mrow></mml:math> by time-resolved XANES. Physical Review B, 2009, 80, .	3.2	13
78	Identification of coherent lattice modulations coupled to charge and orbital order in a manganite. Physical Review B, 2013, 87, .	3.2	12
79	Science Opportunities at the SwissFEL X-ray Laser. Chimia, 2014, 68, 73.	0.6	12
80	A Dispersive Inelastic X-ray Scattering Spectrometer for Use at X-ray Free Electron Lasers. Applied Sciences (Switzerland), 2017, 7, 899.	2.5	12
81	Opportunities for Chemistry at the SwissFEL X-ray Free Electron Laser. Chimia, 2017, 71, 299.	0.6	11
82	Time-resolved Element-selective Probing of Charge Carriers in Solar Materials. Chimia, 2017, 71, 768.	0.6	11
83	Demonstration of femtosecond X-ray pump X-ray probe diffraction on protein crystals. Structural Dynamics, 2018, 5, 054303.	2.3	11
84	Pink-beam serial femtosecond crystallography for accurate structure-factor determination at an X-ray free-electron laser. IUCrJ, 2021, 8, 905-920.	2.2	11
85	A von Hamos spectrometer for in situ sulfur speciation by non-resonant sulfur KÎ± emission spectroscopy. Journal of Analytical Atomic Spectrometry, 2019, 34, 2105-2111.	3.0	10
86	XFELs: cutting edge X-ray light for chemical and material sciences. Physical Chemistry Chemical Physics, 2020, 22, 2612-2614.	2.8	10
87	Diffractive optics implementation of time- and frequency-domain heterodyne-detected six-wave mixing. Applied Physics B: Lasers and Optics, 2002, 74, s107-s112.	2.2	9
88	Time-resolved x-ray absorption spectroscopy: Watching atoms dance. Journal of Physics: Conference Series, 2009, 190, 012052.	0.4	9
89	Probing the dynamics of plasmon-excited hexanethiol-capped gold nanoparticles by picosecond X-ray absorption spectroscopy. Physical Chemistry Chemical Physics, 2014, 16, 23157-23163.	2.8	9
90	Serial Millisecond Crystallography of Membrane Proteins. Advances in Experimental Medicine and Biology, 2016, 922, 137-149.	1.6	9

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91	Optical design of the ARAMIS-beamlines at SwissFEL. AIP Conference Proceedings, 2016, , .	0.4	8
92	Femtosecond phase-transition in hard x-ray excited bismuth. Scientific Reports, 2019, 9, 602.	3.3	8
93	Ultrafast X-ray science: structural transients in solution. TrAC - Trends in Analytical Chemistry, 2010, 29, 497-507.	11.4	7
94	Ultrafast X-ray Absorption Studies of the Structural Dynamics of Molecular and Biological Systems in Solution. Chimia, 2011, 65, 303-307.	0.6	7
95	Inception of electronic damage of matter by photon-driven post-ionization mechanisms. Structural Dynamics, 2019, 6, 024901.	2.3	7
96	Lipidic cubic phase serial femtosecond crystallography structure of a photosynthetic reaction centre. Acta Crystallographica Section D: Structural Biology, 2022, 78, 698-708.	2.3	7
97	Hydrophobicity with atomic resolution: Steady-state and ultrafast X-ray absorption and molecular dynamics studies. Pure and Applied Chemistry, 2012, 85, 53-60.	1.9	6
98	A compact and versatile tender X-ray single-shot spectrometer for online XFEL diagnostics. Journal of Synchrotron Radiation, 2018, 25, 16-19.	2.4	6
99	Ultrafast Structural Dynamics in Condensed Matter. Chimia, 2011, 65, 308.	0.6	5
100	Hole Dynamics in Photoexcited Hematite Studied with Femtosecond Oxygen K-edge X-ray Absorption Spectroscopy. Journal of Physical Chemistry Letters, 2022, 13, 4207-4214.	4.6	5
101	JohnsonetÂal.Reply:. Physical Review Letters, 2010, 104, .	7.8	4
102	X-ray two-photon absorption with high fluence XFEL pulses. Journal of Physics: Conference Series, 2015, 635, 102009.	0.4	4
103	Two Dimensional Fifth-Order Raman Spectroscopy. , 2008, , 1-72.		3
104	Retrieving photochemically active structures by time-resolved EXAFS spectroscopy. Journal of Physics: Conference Series, 2009, 190, 012054.	0.4	3
105	State-Population Narrowing Effect in Two-Photon Absorption for Intense Hard X-ray Pulses. Applied Sciences (Switzerland), 2017, 7, 653.	2.5	3
106	Cross-section determination for one- and two-photon absorption of cobalt at hard-x-ray energies. Physical Review A, 2019, 99, .	2.5	3
107	Multipass Ti:sapphire amplifier based on a parabolic mirror. Optics Communications, 2004, 234, 385-390.	2.1	2
108	Nonlinear delayed symmetry breaking in a solid excited by hard x-ray free electron laser pulses. Applied Physics Letters, 2015, 106, 154101.	3.3	2

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109	Femtosecond X-ray spectroscopy of haem proteins. Faraday Discussions, 2021, 228, 312-328.	3.2	2
110	Femtosecond X-ray Absorption Spectroscopy Î¿f a Light-Driven Spin-Crossover Process. Acta Physica Polonica A, 2010, 117, 391-393.	0.5	2
111	Approaching the Attosecond Frontier of Dynamics in Matter with the Concept of X-ray Chronoscopy. Applied Sciences (Switzerland), 2022, 12, 1721.	2.5	2
112	Atomic Motion in Laser Excited Bismuth Studied with Femtosecond X-Ray Diffraction. Springer Series in Chemical Physics, 2009, , 104-106.	0.2	1
113	Vibrational and condensed phase dynamics: general discussion. Faraday Discussions, 2016, 194, 747-775.	3.2	1
114	Resonant X-ray Emission Spectroscopy with a SASE Beam. Applied Sciences (Switzerland), 2021, 11, 8775.	2.5	1
115	Lipidic cubic phase injector is a viable crystal delivery system for time-resolved serial crystallography. Acta Crystallographica Section A: Foundations and Advances, 2016, 72, s41-s42.	0.1	1
116	Femtosecond X-Ray Absorption Spectroscopy of a Photoinduced Spin-Crossover Process. Springer Series in Chemical Physics, 2009, , 122-124.	0.2	0
117	Short-Time Events, Coherence, and Structural Dynamics in Photochemistry of Aqueous Halogenated Transition Metal Dianions. EPJ Web of Conferences, 2013, 41, 05038.	0.3	0
118	Optical and x-ray time resolved study of the structural transition in mixed valence manganites. EPJ Web of Conferences, 2013, 41, 03002.	0.3	0
119	X-Âray Sources and Detectors. , 2014, , 1-26.		0
120	Two-photon absorption using off-resonant excitation with ultrashort X-ray pulses. Journal of Physics: Conference Series, 2015, 635, 092147.	0.4	0
121	Attosecond processes and X-ray spectroscopy: general discussion. Faraday Discussions, 2016, 194, 427-462.	3.2	0
122	Diffractive optics based 2-colour six wave mixing: heterodyne detection of the fifth-order Raman response of liquids. Springer Series in Chemical Physics, 2001, , 510-512.	0.2	0
123	Diffractive optics based heterodyne detected six-wave mixing: â€œDutch Crossâ€•fifth-order Raman. , 2002, , .		0
124	Diffractive optics based heterodyne detected six-wave mixing: â€œDutch Crossâ€•fifth-order Raman. Springer Series in Chemical Physics, 2003, , 551-553.	0.2	0
125	Femtosecond liquid dynamics studied by two-dimensional Raman spectroscopy. , 2004, , 265-268.		0
126	Fifth-order Raman spectroscopy: Liquid benzene. Springer Series in Chemical Physics, 2007, , 297-299.	0.2	0

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127	Picosecond and femtosecond X-ray absorption studies of the photoinduced spin change in Fe complexes. Acta Crystallographica Section A: Foundations and Advances, 2008, 64, C49-C50.	0.3	0
128	SUB-PICOSECOND INTERSYSTEM CROSSINGS AND STRUCTURAL DYNAMICS: COMBINED ULTRAFAST OPTICAL AND X-RAY ABSORPTION STUDIES. , 2009, , .		0
129	Laser induced CDW melting in TiSe2. Optical and X-ray time resolved study. , 2010, , .		0
130	Time-Resolved X-Ray Emission Spectroscopy. , 2010, , .		0
131	Solvation Dynamics Using Ultrafast X-Ray Absorption Spectroscopy. NATO Science for Peace and Security Series B: Physics and Biophysics, 2011, , 381-381.	0.3	0
132	Preparing for SwissFEL: Exploring the limits of time-resolved X-ray spectroscopy. Acta Crystallographica Section A: Foundations and Advances, 2014, 70, C129-C129.	0.1	0
133	Femtosecond X-ray Absorption and Emission Spectroscopy on ZnO Nanoparticles in Solution. , 2016, , .		0
134	Macromolecular crystallography at SwissFEL. Acta Crystallographica Section A: Foundations and Advances, 2016, 72, s17-s17.	0.1	0
135	Optical second harmonic generation in LiB3O5 modulated by intense femtosecond X-ray pulses. Optics Express, 2020, 28, 11117.	3.4	0