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	Approaching the Attosecond Frontier of Dynamics in Matter with the Concept of X-ray Chronoscopy. Applied Sciences (Switzerland), 2022, 12, 1721.	2.5	2
2	Dynamics and mechanism of a light-driven chloride pump. Science, 2022, 375, 845-851.	12.6	43
3	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
4	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
5	Femtosecond X-ray spectroscopy of haem proteins. Faraday Discussions, 2021, 228, 312-328.	3.2	2
6	Hard X-ray transient grating spectroscopy on bismuth germanate. Nature Photonics, 2021, 15, 499-503.	31.4	31
7	Resonant X-ray Emission Spectroscopy with a SASE Beam. Applied Sciences (Switzerland), 2021, 11, 8775.	2.5	1
8	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
9	XFELs: cutting edge X-ray light for chemical and material sciences. Physical Chemistry Chemical Physics, 2020, 22, 2612-2614.	2.8	10
10	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
11	Femtosecond X-ray emission study of the spin cross-over dynamics in haem proteins. Nature Communications, 2020, 11, 4145.	12.8	29
12	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
13	Femtosecond-to-millisecond structural changes in a light-driven sodium pump. Nature, 2020, 583, 314-318.	27.8	115
14	Taking a snapshot of the triplet excited state of an OLED organometallic luminophore using X-rays. Nature Communications, 2020, 11, 2131.	12.8	24
15	Advances in long-wavelength native phasing at X-ray free-electron lasers. IUCrJ, 2020, 7, 965-975.	2.2	25
16	Optical second harmonic generation in LiB3O5 modulated by intense femtosecond X-ray pulses. Optics Express, 2020, 28, 11117.	3.4	0
17	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
18	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

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19	Femtosecond phase-transition in hard x-ray excited bismuth. Scientific Reports, 2019, 9, 602.	3.3	8
20	Nonlinear XUV-optical transient grating spectroscopy at the Si L2,3â€“edge. Applied Physics Letters, 2019, 114, 181101.	3.3	15
21	Cross-section determination for one- and two-photon absorption of cobalt at hard-x-ray energies. Physical Review A, 2019, 99, .	2.5	3
22	Inception of electronic damage of matter by photon-driven post-ionization mechanisms. Structural Dynamics, 2019, 6, 024901.	2.3	7
23	Core-level nonlinear spectroscopy triggered by stochastic X-ray pulses. Nature Communications, 2019, 10, 4761.	12.8	23
24	Towards X-ray transient grating spectroscopy. Optics Letters, 2019, 44, 574.	3.3	17
25	Revealing hole trapping in zinc oxide nanoparticles by time-resolved X-ray spectroscopy. Nature Communications, 2018, 9, 478.	12.8	84
26	Demonstration of femtosecond X-ray pump X-ray probe diffraction on protein crystals. Structural Dynamics, 2018, 5, 054303.	2.3	11
27	Retinal isomerization in bacteriorhodopsin captured by a femtosecond x-ray laser. Science, 2018, 361, .	12.6	285
28	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
29	SwissFEL Aramis beamline photon diagnostics. Journal of Synchrotron Radiation, 2018, 25, 1238-1248.	2.4	29
30	Opportunities for Chemistry at the SwissFEL X-ray Free Electron Laser. Chimia, 2017, 71, 299.	0.6	11
31	Short-wavelength free-electron laser sources and science: a review. Reports on Progress in Physics, 2017, 80, 115901.	20.1	183
32	Charge migration and charge transfer in molecular systems. Structural Dynamics, 2017, 4, 061508.	2.3	146
33	Perspective: Opportunities for ultrafast science at SwissFEL. Structural Dynamics, 2017, 4, 061602.	2.3	40
34	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
35	State-Population Narrowing Effect in Two-Photon Absorption for Intense Hard X-ray Pulses. Applied Sciences (Switzerland), 2017, 7, 653.	2.5	3
36	SwissFEL: The Swiss X-ray Free Electron Laser. Applied Sciences (Switzerland), 2017, 7, 720.	2.5	272

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37	A Dispersive Inelastic X-ray Scattering Spectrometer for Use at X-ray Free Electron Lasers. Applied Sciences (Switzerland), 2017, 7, 899.	2.5	12
38	Time-resolved Element-selective Probing of Charge Carriers in Solar Materials. Chimia, 2017, 71, 768.	0.6	11
39	Optical design of the ARAMIS-beamlines at SwissFEL. AIP Conference Proceedings, 2016, , .	0.4	8
40	Establishing nonlinearity thresholds with ultraintense X-ray pulses. Scientific Reports, 2016, 6, 33292.	3.3	43
41	Vibrational and condensed phase dynamics: general discussion. Faraday Discussions, 2016, 194, 747-775.	3.2	1
42	Attosecond processes and X-ray spectroscopy: general discussion. Faraday Discussions, 2016, 194, 427-462.	3.2	0
43	Lipidic cubic phase injector is a viable crystal delivery system for time-resolved serial crystallography. Nature Communications, 2016, 7, 12314.	12.8	71
44	Investigating DNA Radiation Damage Using X-Ray Absorption Spectroscopy. Biophysical Journal, 2016, 110, 1304-1311.	0.5	16
45	Serial Millisecond Crystallography of Membrane Proteins. Advances in Experimental Medicine and Biology, 2016, 922, 137-149.	1.6	9
46	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
47	Femtosecond X-ray Absorption and Emission Spectroscopy on ZnO Nanoparticles in Solution. , 2016, , .		0
48	Macromolecular crystallography at SwissFEL. Acta Crystallographica Section A: Foundations and Advances, 2016, 72, s17-s17.	0.1	0
49	Time-resolved structural studies with serial crystallography: A new light on retinal proteins. Structural Dynamics, 2015, 2, 041718.	2.3	22
50	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
51	Two-photon absorption using off-resonant excitation with ultrashort X-ray pulses. Journal of Physics: Conference Series, 2015, 635, 092147.	0.4	0
52	X-ray two-photon absorption with high fluence XFEL pulses. Journal of Physics: Conference Series, 2015, 635, 102009.	0.4	4
53	Following the dynamics of matter with femtosecond precision using the X-ray streaking method. Scientific Reports, 2015, 5, 7644.	3.3	24
54	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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55	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
56	Probing wavepacket dynamics using ultrafast x-ray spectroscopy. Journal of Physics B: Atomic, Molecular and Optical Physics, 2015, 48, 214001.	1.5	46
57	Communication: The electronic structure of matter probed with a single femtosecond hard x-ray pulse. Structural Dynamics, 2014, 1, 021101.	2.3	31
58	Recent experimental and theoretical developments in time-resolved X-ray spectroscopies. Coordination Chemistry Reviews, 2014, 277-278, 44-68.	18.8	161
59	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
60	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
61	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
62	Temperature-programmed reduction of NiO nanoparticles followed by time-resolved RIXS. Physical Chemistry Chemical Physics, 2014, 16, 7692.	2.8	29
63	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
64	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
65	Photooxidation and photoaquation of iron hexacyanide in aqueous solution: A picosecond X-ray absorption study. Structural Dynamics, 2014, 1, 024901.	2.3	49
66	X-Âray Sources and Detectors. , 2014, , 1-26.		0
67	Science Opportunities at the SwissFEL X-ray Laser. Chimia, 2014, 68, 73.	0.6	12
68	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
69	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
70	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
71	Direct observation of charge separation on Au localized surface plasmons. Energy and Environmental Science, 2013, 6, 3584.	30.8	70
72	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

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73	A wavelet analysis for the X-ray absorption spectra of molecules. Journal of Chemical Physics, 2013, 138, 014104.	3.0	38
74	Direct observation of non-fully-symmetric coherent optical phonons by femtosecond x-ray diffraction. Physical Review B, 2013, 87, .	3.2	22
75	Transient mid-IR study of electron dynamics in TiO2 conduction band. Analyst, The, 2013, 138, 1966.	3.5	19
76	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
77	Identification of coherent lattice modulations coupled to charge and orbital order in a manganite. Physical Review B, 2013, 87, .	3.2	12
78	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
79	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 Physical Chemistry C, 2013, 117, 16064.	13.7	43
80	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:mi>	3.2	26
81	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
82	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
83	Tailoring interference and nonlinear manipulation of femtosecond x-rays. New Journal of Physics, 2012, 14, 013004.	2.9	14
84	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
85	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>superlattice. Physical Review B, 2012, 85, .	3.2	26
86	Femtosecond dynamics of the structural transition in mixed valence manganites. Physical Review B, 2012, 86, .	3.2	19
87	Structural and Magnetic Dynamics of a Laser Induced Phase Transition in FeRh. Physical Review Letters, 2012, 108, 087201.	7.8	91
88	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
89	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
90	Picosecond dynamics of laser-induced strain in graphite. Physical Review B, 2011, 84, .	3.2	19

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91	Ultrafast X-ray Absorption Studies of the Structural Dynamics of Molecular and Biological Systems in Solution. Chimia, 2011, 65, 303-307.	0.6	7
92	Ultrafast Structural Dynamics in Condensed Matter. Chimia, 2011, 65, 308.	0.6	5
93	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
94	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
95	L-edge XANES analysis of photoexcited metal complexes in solution. Physical Chemistry Chemical Physics, 2010, 12, 5551.	2.8	50
96	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
97	Ultrafast X-ray science: structural transients in solution. TrAC - Trends in Analytical Chemistry, 2010, 29, 497-507.	11.4	7
98	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
99	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
100	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
101	Ultrafast manipulation of hard x-rays by efficient Bragg switches. Applied Physics Letters, 2010, 96, .	3.3	20
102	JohnsonetÂal.Reply:. Physical Review Letters, 2010, 104, .	7.8	4
103	Femtosecond X-ray Absorption Spectroscopy Î¿f a Light-Driven Spin-Crossover Process. Acta Physica Polonica A, 2010, 117, 391-393.	0.5	2
104	Laser induced CDW melting in TiSe2. Optical and X-ray time resolved study. , 2010, , .		0
105	Time-Resolved X-Ray Emission Spectroscopy. , 2010, , .		0
106	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	12
107	Structural Determination of a Photochemically Active Diplatinum Molecule by Timeâ€Resolved EXAFS Spectroscopy. Angewandte Chemie - International Edition, 2009, 48, 2711-2714.	13.8	116
108	Directly Observing Squeezed Phonon States with Femtosecond X-Ray Diffraction. Physical Review Letters, 2009, 102, 175503.	7.8	122

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109	Ultrafast Structural Phase Transition Driven by Photoinduced Melting of Charge and Orbital Order. Physical Review Letters, 2009, 103, 155702.	7.8	108
110	Femtosecond XANES Study of the Light-Induced Spin Crossover Dynamics in an Iron(II) Complex. Science, 2009, 323, 489-492.	12.6	497
111	Femtosecond X-Ray Absorption Spectroscopy of a Photoinduced Spin-Crossover Process. Springer Series in Chemical Physics, 2009, , 122-124.	0.2	0
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	Full Reconstruction of a Crystal Unit Cell Structure during Coherent Femtosecond Motion. Physical Review Letters, 2009, 103, 205501.	7.8	26
114	Time-resolved x-ray absorption spectroscopy: Watching atoms dance. Journal of Physics: Conference Series, 2009, 190, 012052.	0.4	9
115	Retrieving photochemically active structures by time-resolved EXAFS spectroscopy. Journal of Physics: Conference Series, 2009, 190, 012054.	0.4	3
116	SUB-PICOSECOND INTERSYSTEM CROSSINGS AND STRUCTURAL DYNAMICS: COMBINED ULTRAFAST OPTICAL AND X-RAY ABSORPTION STUDIES. , 2009, , .		0
117	Two Dimensional Fifth-Order Raman Spectroscopy. , 2008, , 1-72.		3
118	Nanoscale Depth-Resolved Coherent Femtosecond Motion in Laser-Excited Bismuth. Physical Review Letters, 2008, 100, 155501.	7.8	136
119	EXAFS Structural Determination of the Pt₂(P₂O₅H₂)₄^{4â€“} Anion in Solution. Chimia, 2008, 62, 287-290.	0.6	21
120	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
121	Light-Induced Spin Crossover Probed by Ultrafast Optical and X-ray Spectroscopies. Chimia, 2007, 61, 179-183.	0.6	15
122	Fifth-order Raman spectroscopy: Liquid benzene. Springer Series in Chemical Physics, 2007, , 297-299.	0.2	0
123	Fifth-Order Raman Spectroscopy of Liquid Benzene:Â Experiment and Theoryâ€. Journal of Physical Chemistry B, 2006, 110, 19867-19876.	2.6	24
124	Multipass Ti:sapphire amplifier based on a parabolic mirror. Optics Communications, 2004, 234, 385-390.	2.1	2
125	Femtosecond liquid dynamics studied by two-dimensional Raman spectroscopy. , 2004, , 265-268.		0
126	Heterodyne detected fifth-order Raman response of liquid CS2: â€˜Dutch Crossâ€™ polarization. Chemical Physics Letters, 2003, 369, 635-642.	2.6	36

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127	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
128	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
129	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
130	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
131	Diffractive optics based heterodyne detected six-wave mixing: â€œDutch Crossâ€•fifth-order Raman. , 2002, , .		0
132	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
133	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
134	Diffractive optics implementation of six-wave mixing. Optics Letters, 2000, 25, 853.	3.3	59
135	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