Roberto Alonso Mori

List of Publications by Year
in descending order

113	9,766	36303	37204
papers	citations	51 h-index	96 g-index

116	116	116	11532
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Femtosecond X-ray Spectroscopy Directly Quantifies Transient Excited-State Mixed Valency. Journal of Physical Chemistry Letters, 2022, 13, 378-386.	4.6	9
2	Generation of intense phase-stable femtosecond hard X-ray pulse pairs. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2119616119.	7.1	4
3	XFEL serial crystallography reveals the room temperature structure of methyl-coenzyme M reductase. Journal of Inorganic Biochemistry, 2022, 230, 111768.	3.5	6
4	Charge transfer driven by ultrafast spin transition in a CoFe Prussian blue analogue. Nature Chemistry, 2021, 13, 10-14.	13.6	96
5	Visualization of dynamic polaronic strain fields in hybrid lead halide perovskites. Nature Materials, 2021, 20, 618-623.	27.5	96
6	Short-lived metal-centered excited state initiates iron-methionine photodissociation in ferrous cytochrome c. Nature Communications, 2021, 12, 1086.	12.8	17
7	Direct observation of coherent femtosecond solvent reorganization coupled to intramolecular electron transfer. Nature Chemistry, 2021, 13, 343-349.	13.6	59
8	Laser-induced transient magnons in Sr ₃ Ir ₂ O ₇ throughout the Brillouin zone. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	19
9	Resonant X-ray emission spectroscopy from broadband stochastic pulses at an X-ray free electron laser. Communications Chemistry, 2021, 4, .	4.5	4
10	X-ray free-electron laser studies reveal correlated motion during isopenicillin N synthase catalysis. Science Advances, 2021, 7, .	10.3	23
11	Pulse Energy and Pulse Duration Effects in the Ionization and Fragmentation of Iodomethane by Ultraintense Hard X Rays. Physical Review Letters, 2021, 127, 093202.	7.8	6
12	Analytic von Hamos geometry optimization and calibration. , 2021, , .		0
13	Effects of x-ray free-electron laser pulse intensity on the Mn KÎ²_{1,3} x-ray emission spectrum in photosystem IIâ€"A case study for metalloprotein crystals and solutions. Structural Dynamics, 2021, 8, 064302.	2.3	10
14	Structural dynamics in the water and proton channels of photosystem II during the S2 to S3 transition. Nature Communications, 2021, 12, 6531.	12.8	73
15	Resolving structures of transition metal complex reaction intermediates with femtosecond EXAFS. Physical Chemistry Chemical Physics, 2020, 22, 2660-2666.	2.8	21
16	Hot Branching Dynamics in a Lightâ€Harvesting Iron Carbene Complex Revealed by Ultrafast Xâ€ray Emission Spectroscopy. Angewandte Chemie - International Edition, 2020, 59, 364-372.	13.8	41
17	Ultrafast XANES Monitors Femtosecond Sequential Structural Evolution in Photoexcited Coenzyme B₁₂. Journal of Physical Chemistry B, 2020, 124, 199-209.	2.6	17
18	Photoreversible interconversion of a phytochrome photosensory module in the crystalline state. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 300-307.	7.1	19

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19	High-Resolution XFEL Structure of the Soluble Methane Monooxygenase Hydroxylase Complex with its Regulatory Component at Ambient Temperature in Two Oxidation States. Journal of the American Chemical Society, 2020, 142, 14249-14266.	13.7	41
20	Observation of Seeded Mn KÎ² Stimulated X-Ray Emission Using Two-Color X-Ray Free-Electron Laser Pulses. Physical Review Letters, 2020, 125, 037404.	7.8	20
21	Femtosecond electronic structure response to high intensity XFEL pulses probed by iron X-ray emission spectroscopy. Scientific Reports, 2020, 10, 16837.	3.3	13
22	Excited state charge distribution and bond expansion of ferrous complexes observed with femtosecond valence-to-core x-ray emission spectroscopy. Journal of Chemical Physics, 2020, 152, 074203.	3.0	15
23	Vibrational wavepacket dynamics in Fe carbene photosensitizer determined with femtosecond X-ray emission and scattering. Nature Communications, 2020, 11, 634.	12.8	75
24	A versatile Johansson-type tender x-ray emission spectrometer. Review of Scientific Instruments, 2020, 91, 033101.	1.3	26
25	The Photoactive Excited State of the B₁₂-Based Photoreceptor CarH. Journal of Physical Chemistry B, 2020, 124, 10732-10738.	2.6	25
26	Untangling the sequence of events during the S ₂ â†' S ₃ transition in photosystem II and implications for the water oxidation mechanism. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 12624-12635.	7.1	149
27	XANES and EXAFS of dilute solutions of transition metals at XFELs. Journal of Synchrotron Radiation, 2019, 26, 1716-1724.	2.4	16
28	Soft X-ray spectroscopy with transition-edge sensors at Stanford Synchrotron Radiation Lightsource beamline 10-1. Review of Scientific Instruments, 2019, 90, 113101.	1.3	40
29	Antivitamins B₁₂ in a Microdrop: The Excited-State Structure of a Precious Sample Using Transient Polarized X-ray Absorption Near-Edge Structure. Journal of Physical Chemistry Letters, 2019, 10, 5484-5489.	4.6	10
30	Pheomelanin pigment remnants mapped in fossils of an extinct mammal. Nature Communications, 2019, 10, 2250.	12.8	30
31	Finding intersections between electronic excited state potential energy surfaces with simultaneous ultrafast X-ray scattering and spectroscopy. Chemical Science, 2019, 10, 5749-5760.	7.4	90
32	Separate measurement of the 5f5/2 and 5f7/2 unoccupied density of states of UO2. Journal of Electron Spectroscopy and Related Phenomena, 2019, 232, 100-104.	1.7	19
33	Diagram, valenceâ€toâ€core, and hypersatellite KÎ² Xâ€ray transitions in metallic chromium. X-Ray Spectrometry, 2019, 48, 351-359.	1.4	6
34	Core-level nonlinear spectroscopy triggered by stochastic X-ray pulses. Nature Communications, 2019, 10, 4761.	12.8	23
35	Mix-and-inject XFEL crystallography reveals gated conformational dynamics during enzyme catalysis. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 25634-25640.	7.1	56
36	The Macromolecular Femtosecond Crystallography Instrument at the Linac Coherent Light Source. Journal of Synchrotron Radiation, 2019, 26, 346-357.	2.4	37

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37	A high-throughput energy-dispersive tender X-ray spectrometer for shot-to-shot sulfur measurements. Journal of Synchrotron Radiation, 2019, 26, 629-634.	2.4	11
38	Solvent control of charge transfer excited state relaxation pathways in [Fe(2,2â€²-bipyridine)(CN)₄]^{2â^’}. Physical Chemistry Chemical Physics, 2018, 20, 4238-4249.	2.8	52
39	Stimulated X-Ray Emission Spectroscopy in Transition Metal Complexes. Physical Review Letters, 2018, 120, 133203.	7.8	48
40	Structures of the intermediates of Kokâ€™s photosynthetic water oxidation clock. Nature, 2018, 563, 421-425.	27.8	386
41	Relativistic and resonant effects in the ionization of heavy atoms by ultra-intense hard X-rays. Nature Communications, 2018, 9, 4200.	12.8	29
42	Coherent X-rays reveal the influence of cage effects on ultrafast water dynamics. Nature Communications, 2018, 9, 1917.	12.8	59
43	Ultrafast X-ray Absorption Near Edge Structure Reveals Ballistic Excited State Structural Dynamics. Journal of Physical Chemistry A, 2018, 122, 4963-4971.	2.5	34
44	Ultrafast nonthermal heating of water initiated by an X-ray Free-Electron Laser. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 5652-5657.	7.1	28
45	X-ray Emission Spectroscopy as an in Situ Diagnostic Tool for X-ray Crystallography of Metalloproteins Using an X-ray Free-Electron Laser. Biochemistry, 2018, 57, 4629-4637.	2.5	39
46	X-Ray Spectroscopy with XFELs. , 2018, , 377-399.		1
47	Polarized XANES Monitors Femtosecond Structural Evolution of Photoexcited Vitamin B₁₂. Journal of the American Chemical Society, 2017, 139, 1894-1899.	13.7	64
48	Drop-on-demand sample delivery for studying biocatalysts in action at X-ray free-electron lasers. Nature Methods, 2017, 14, 443-449.	19.0	150
49	High-speed fixed-target serial virus crystallography. Nature Methods, 2017, 14, 805-810.	19.0	106
50	Metalloprotein entatic control of ligand-metal bonds quantified by ultrafast x-ray spectroscopy. Science, 2017, 356, 1276-1280.	12.6	109
51	Femtosecond response of polyatomic molecules to ultra-intense hard X-rays. Nature, 2017, 546, 129-132.	27.8	139
52	Ligand manipulation of charge transfer excited state relaxation and spin crossover in [Fe(2,2â€²-bipyridine)2(CN)2]. Structural Dynamics, 2017, 4, 044030.	2.3	41
53	Soft x-ray absorption spectroscopy of metalloproteins and high-valent metal-complexes at room temperature using free-electron lasers. Structural Dynamics, 2017, 4, 054307.	2.3	34
54	Manipulating charge transfer excited state relaxation and spin crossover in iron coordination complexes with ligand substitution. Chemical Science, 2017, 8, 515-523.	7.4	102

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55	ePix100 camera: Use and applications at LCLS. AIP Conference Proceedings, 2016, , .	0.4	14
56	X-ray absorption spectroscopy using a self-seeded soft X-ray free-electron laser. Optics Express, 2016, 24, 22469.	3.4	19
57	Matter under extreme conditions experiments at the Linac Coherent Light Source. Journal of Physics B: Atomic, Molecular and Optical Physics, 2016, 49, 092001.	1.5	107
58	No observable conformational changes in PSII. Nature, 2016, 533, E1-E2.	27.8	40
59	Ultrafast energy- and momentum-resolved dynamics of magnetic correlations in the photo-doped Mott insulator Sr2IrO4. Nature Materials, 2016, 15, 601-605.	27.5	120
60	Structural changes correlated with magnetic spin state isomorphism in the S₂ state of the Mn₄CaO₅ cluster in the oxygen-evolving complex of photosystem II. Chemical Science, 2016, 7, 5236-5248.	7.4	39
61	Structure of photosystem II and substrate binding at room temperature. Nature, 2016, 540, 453-457.	27.8	323
62	Femtosecond X-Ray Scattering Study of Ultrafast Photoinduced Structural Dynamics in Solvated<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mo stretchy="false">[</mml:mo><mml:mi>Co</mml:mi><mml:mo stretchy="false">(</mml:mo><mml:mtext) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 452 Td (mathvariant="bold">terpy</mml:mtext><mml:	7.8	86
63	Fixed target combined with spectral mapping: approaching 100% hit rates for serial crystallography. Acta Crystallographica Section D: Structural Biology, 2016, 72, 944-955.	2.3	71
64	Elemental characterisation of melanin in feathers via synchrotron X-ray imaging and absorption spectroscopy. Scientific Reports, 2016, 6, 34002.	3.3	44
65	High-density grids for efficient data collection from multiple crystals. Acta Crystallographica Section D: Structural Biology, 2016, 72, 2-11.	2.3	62
66	Towards characterization of photo-excited electron transfer and catalysis in natural and artificial systems using XFELs. Faraday Discussions, 2016, 194, 621-638.	3.2	19
67	Acoustic Injectors for Drop-On-Demand Serial Femtosecond Crystallography. Structure, 2016, 24, 631-640.	3.3	88
68	Observing Solvation Dynamics with Simultaneous Femtosecond X-ray Emission Spectroscopy and X-ray Scattering. Journal of Physical Chemistry B, 2016, 120, 1158-1168.	2.6	85
69	Goniometer-based femtosecond X-ray diffraction of mutant 30S ribosomal subunit crystals. Structural Dynamics, 2015, 2, 041706.	2.3	1
70	Identification of Highly Active Fe Sites in (Ni,Fe)OOH for Electrocatalytic Water Splitting. Journal of the American Chemical Society, 2015, 137, 1305-1313.	13.7	2,018
71	Indications of radiation damage in ferredoxin microcrystals using high-intensity X-FEL beams. Journal of Synchrotron Radiation, 2015, 22, 225-238.	2.4	110
72	Focus characterization at an X-ray free-electron laser by coherent scattering and speckle analysis. Journal of Synchrotron Radiation, 2015, 22, 599-605.	2.4	18

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73	Effects of self-seeding and crystal post-selection on the quality of Monte Carlo-integrated SFX data. Journal of Synchrotron Radiation, 2015, 22, 644-652.	2.4	20
74	Demonstration of simultaneous experiments usingÂthin crystal multiplexing at the Linac CoherentÂLight Source. Journal of Synchrotron Radiation, 2015, 22, 626-633.	2.4	20
75	Photon-in photon-out hard X-ray spectroscopy at the Linac Coherent Light Source. Journal of Synchrotron Radiation, 2015, 22, 612-620.	2.4	35
76	The mapping and differentiation of biological and environmental elemental signatures in the fossil remains of a 50 million year old bird. Journal of Analytical Atomic Spectrometry, 2015, 30, 627-634.	3.0	28
77	Simultaneous detection of electronic structure changes from two elements of a bifunctional catalyst using wavelength-dispersive X-ray emission spectroscopy and in situ electrochemistry. Physical Chemistry Chemical Physics, 2015, 17, 8901-8912.	2.8	45
78	The X-ray Correlation Spectroscopy instrument atÂtheÂLinac Coherent Light Source. Journal of Synchrotron Radiation, 2015, 22, 508-513.	2.4	54
79	The X-ray Pumpâ€“Probe instrument at the LinacÂCoherent Light Source. Journal of Synchrotron Radiation, 2015, 22, 503-507.	2.4	159
80	Bioturbating animals control the mobility of redox-sensitive trace elements in organic-rich mudstone. Geology, 2015, 43, 1007-1010.	4.4	14
81	Architecture of the synaptotagminâ€“SNARE machinery for neuronal exocytosis. Nature, 2015, 525, 62-67.	27.8	268
82	Mapping the conformational landscape of a dynamic enzyme by multitemperature and XFEL crystallography. ELife, 2015, 4, .	6.0	143
83	Performance of a beam-multiplexing diamond crystal monochromator at the Linac Coherent Light Source. Review of Scientific Instruments, 2014, 85, 063106.	1.3	55
84	Methods development for diffraction and spectroscopy studies of metalloenzymes at X-ray free-electron lasers. Philosophical Transactions of the Royal Society B: Biological Sciences, 2014, 369, 20130590.	4.0	23
85	Resonant Inelastic X-ray Scattering on Ferrous and Ferric Bis-imidazole Porphyrin and Cytochrome c: Nature and Role of the Axial Methionineâ€“Fe Bond. Journal of the American Chemical Society, 2014, 136, 18087-18099.	13.7	56
86	Accurate macromolecular structures using minimal measurements from X-ray free-electron lasers. Nature Methods, 2014, 11, 545-548.	19.0	140
87	Tracking excited-state charge and spin dynamics in iron coordination complexes. Nature, 2014, 509, 345-348.	27.8	382
88	Goniometer-based femtosecond crystallography with X-ray free electron lasers. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 17122-17127.	7.1	122
89	All-diamond optical assemblies for a beam-multiplexing X-ray monochromator at the Linac Coherent Light Source. Journal of Applied Crystallography, 2014, 47, 1329-1336.	4.5	39
90	Leaf metallome preserved over 50 million years. Metallomics, 2014, 6, 774-782.	2.4	35

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91	Structure, Redox Chemistry, and Interfacial Alloy Formation in Monolayer and Multilayer Cu/Au(111) Model Catalysts for CO₂ Electroreduction. Journal of Physical Chemistry C, 2014, 118, 7954-7961.	3.1	68
92	Synchrotron imaging reveals bone healing and remodelling strategies in extinct and extant vertebrates. Journal of the Royal Society Interface, 2014, 11, 20140277.	3.4	47
93	Taking snapshots of photosynthetic water oxidation using femtosecond X-ray diffraction and spectroscopy. Nature Communications, 2014, 5, 4371.	12.8	206
94	The Mn ₄ Ca photosynthetic water-oxidation catalyst studied by simultaneous X-ray spectroscopy and crystallography using an X-ray free-electron laser. Philosophical Transactions of the Royal Society B: Biological Sciences, 2014, 369, 20130324.	4.0	17
95	Experimental and Computational X-ray Emission Spectroscopy as a Direct Probe of Protonation States in Oxo-Bridged Mn^{IV} Dimers Relevant to Redox-Active Metalloproteins. Inorganic Chemistry, 2013, 52, 12915-12922.	4.0	62
96	On the chemical state of Co oxide electrocatalysts during alkaline water splitting. Physical Chemistry Chemical Physics, 2013, 15, 17460.	2.8	89
97	L-Edge X-ray Absorption Spectroscopy of Dilute Systems Relevant to Metalloproteins Using an X-ray Free-Electron Laser. Journal of Physical Chemistry Letters, 2013, 4, 3641-3647.	4.6	64
98	Simultaneous Femtosecond X-ray Spectroscopy and Diffraction of Photosystem II at Room Temperature. Science, 2013, 340, 491-495.	12.6	378
99	Reflections on hard X-ray photon-in/photon-out spectroscopy for electronic structure studies. Journal of Electron Spectroscopy and Related Phenomena, 2013, 188, 17-25.	1.7	128
100	A seven-crystal Johann-type hard x-ray spectrometer at the Stanford Synchrotron Radiation Lightsource. Review of Scientific Instruments, 2013, 84, 053102.	1.3	132
101	Energy-dispersive X-ray emission spectroscopy using an X-ray free-electron laser in a shot-by-shot mode. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 19103-19107.	7.1	113
102	Nanoflow electrospinning serial femtosecond crystallography. Acta Crystallographica Section D: Biological Crystallography, 2012, 68, 1584-1587.	2.5	167
103	Electrochemical Oxidation of Size-Selected Pt Nanoparticles Studied Using in Situ High-Energy-Resolution X-ray Absorption Spectroscopy. ACS Catalysis, 2012, 2, 2371-2376.	11.2	105
104	In situ X-ray Raman spectroscopy of LiBH4. Physical Chemistry Chemical Physics, 2012, 14, 5581.	2.8	27
105	Effect of alkalis on the Fe oxidation state and local environment in peralkaline rhyolitic glasses. American Mineralogist, 2012, 97, 468-475.	1.9	55
106	Room temperature femtosecond X-ray diffraction of photosystem II microcrystals. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 9721-9726.	7.1	144
107	A multi-crystal wavelength dispersive x-ray spectrometer. Review of Scientific Instruments, 2012, 83, 073114.	1.3	130
108	Five-element Johann-type x-ray emission spectrometer with a single-photon-counting pixel detector. Review of Scientific Instruments, 2011, 82, 065107.	1.3	93

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109	Sulfur-Metal Orbital Hybridization in Sulfur-Bearing Compounds Studied by X-ray Emission Spectroscopy. Inorganic Chemistry, 2010, 49, 6468-6473.	4.0	56
110	Separation of Two-Electron Photoexcited Atomic Processes near the Inner-Shell Threshold. Physical Review Letters, 2009, 102, 143001.	7.8	32
111	Electronic Structure of Sulfur Studied by X-ray Absorption and Emission Spectroscopy. Analytical Chemistry, 2009, 81, 6516-6525.	6.5	93
112	Sample Preparation and Data Collection for High-Speed Fixed-Target Serial Femtosecond Crystallography. Protocol Exchange, 0, , .	0.3	1
113	Out-of-equilibrium dynamics driven by photoinduced charge transfer in CsCoFe Prussian blue analogue nanocrystals. Faraday Discussions, 0, 237, 224-236.	3.2	5