Christoph Bostedt

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/11179139/publications.pdf

Version: 2024-02-01

93	9,894	66343	53230
papers	citations	42 h-index	85 g-index

94	94	94	6775
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Femtosecond X-ray protein nanocrystallography. Nature, 2011, 470, 73-77.	27.8	1,771
2	Femtosecond diffractive imaging with a soft-X-ray free-electron laser. Nature Physics, 2006, 2, 839-843.	16.7	910
3	Single mimivirus particles intercepted and imaged with an X-ray laser. Nature, 2011, 470, 78-81.	27.8	790
4	Linac Coherent Light Source: The first five years. Reviews of Modern Physics, 2016, 88, .	45.6	477
5	Atomic inner-shell X-ray laser at 1.46 nanometres pumped by an X-ray free-electron laser. Nature, 2012, 481, 488-491.	27.8	321
6	Self-terminating diffraction gates femtosecond X-ray nanocrystallography measurements. Nature Photonics, 2012, 6, 35-40.	31.4	292
7	Three-Dimensional Reconstruction of the Giant Mimivirus Particle with an X-Ray Free-Electron Laser. Physical Review Letters, 2015, 114, 098102.	7.8	284
8	Large-format, high-speed, X-ray pnCCDs combined with electron and ion imaging spectrometers in a multipurpose chamber for experiments at 4th generation light sources. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2010, 614, 483-496.	1.6	275
9	Roadmap of ultrafast x-ray atomic and molecular physics. Journal of Physics B: Atomic, Molecular and Optical Physics, 2018, 51, 032003.	1.5	240
10	Femtosecond time-delay X-ray holography. Nature, 2007, 448, 676-679.	27.8	238
11	Time-resolved protein nanocrystallography using an X-ray free-electron laser. Optics Express, 2012, 20, 2706.	3.4	219
12	Ultra-efficient ionization of heavy atoms by intense X-ray free-electron laser pulses. Nature Photonics, 2012, 6, 858-865.	31.4	218
13	X-Ray Diffraction from Isolated and Strongly Aligned Gas-Phase Molecules with a Free-Electron Laser. Physical Review Letters, 2014, 112, .	7.8	217
14	Shapes and vorticities of superfluid helium nanodroplets. Science, 2014, 345, 906-909.	12.6	197
15	In vivo protein crystallization opens new routes in structural biology. Nature Methods, 2012, 9, 259-262.	19.0	193
16	Imaging charge transfer in iodomethane upon x-ray photoabsorption. Science, 2014, 345, 288-291.	12.6	183
17	Double-core-hole spectroscopy for chemical analysis with an intense X-ray femtosecond laser. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 16912-16915.	7.1	165
18	Radiation damage in protein serial femtosecond crystallography using an x-ray free-electron laser. Physical Review B, 2011, 84, 214111.	3.2	156

#	Article	IF	Citations
19	High-throughput imaging of heterogeneous cell organelles with an X-ray laser. Nature Photonics, 2014, 8, 943-949.	31.4	156
20	Imaging single cells in a beam of live cyanobacteria with an X-ray laser. Nature Communications, 2015, 6, 5704.	12.8	156
21	Lipidic phase membrane protein serial femtosecond crystallography. Nature Methods, 2012, 9, 263-265.	19.0	135
22	Stimulated Electronic X-Ray Raman Scattering. Physical Review Letters, 2013, 111, 233902.	7.8	123
23	Optical Response of Diamond Nanocrystals as a Function of Particle Size, Shape, and Symmetry. Physical Review Letters, 2009, 103, 047402.	7.8	110
24	Ultrafast isomerization initiated by X-ray core ionization. Nature Communications, 2015, 6, 8199.	12.8	92
25	Unsupervised classification of single-particle X-ray diffraction snapshots by spectral clustering. Optics Express, 2011, 19, 16542.	3.4	91
26	Femtosecond and nanometre visualization of structural dynamics in superheated nanoparticles. Nature Photonics, 2016, 10, 93-97.	31.4	89
27	Experiments at FLASH. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 601, 108-122.	1.6	88
28	The 3D-architecture of individual free silver nanoparticles captured by X-ray scattering. Nature Communications, 2015, 6, 6187.	12.8	82
29	Transient lattice contraction in the solid-to-plasma transition. Science Advances, 2016, 2, e1500837.	10.3	70
30	The Atomic, Molecular and Optical Science instrument at the Linac Coherent Light Source. Journal of Synchrotron Radiation, 2015, 22, 492-497.	2.4	61
31	Size-Dependent Ultrafast Ionization Dynamics of Nanoscale Samples in Intense Femtosecond X-Ray Free-Electron-Laser Pulses. Physical Review Letters, 2012, 108, 233401.	7.8	60
32	Charge transfer in dissociating iodomethane and fluoromethane molecules ionized by intense femtosecond X-ray pulses. Structural Dynamics, 2016, 3, 043207.	2.3	59
33	Fast electrons from multi-electron dynamics in xenon clusters induced by inner-shell ionization. New Journal of Physics, 2010, 12, 083004.	2.9	58
34	Femtosecond X-ray Fourier holography imaging of free-flying nanoparticles. Nature Photonics, 2018, 12, 150-153.	31.4	58
35	Resonance-enhanced multiple ionization of krypton at an x-ray free-electron laser. Physical Review A, 2013, 87, .	2.5	57
36	Femtosecond free-electron laser x-ray diffraction data sets for algorithm development. Optics Express, 2012, 20, 4149.	3.4	56

#	Article	IF	Citations
37	Transient X-Ray Fragmentation: Probing a Prototypical Photoinduced Ring Opening. Physical Review Letters, 2012, 108, 253006.	7.8	56
38	Imaging molecular structure through femtosecond photoelectron diffraction on aligned and oriented gas-phase molecules. Faraday Discussions, 2014, 171, 57-80.	3.2	55
39	Electronic structure tuning of diamondoids through functionalization. Journal of Chemical Physics, 2013, 138, 024310.	3.0	51
40	The SwissFEL soft X-ray free-electron laser beamline: Athos. Journal of Synchrotron Radiation, 2019, 26, 1073-1084.	2.4	51
41	Electrospray sample injection for single-particle imaging with x-ray lasers. Science Advances, 2019, 5, eaav8801.	10.3	49
42	Theoretical Tracking of Resonance-Enhanced Multiple Ionization Pathways in X-ray Free-Electron Laser Pulses. Physical Review Letters, 2014, 113, 253001.	7.8	48
43	Electronic Population Transfer via Impulsive Stimulated X-Ray Raman Scattering with Attosecond Soft-X-Ray Pulses. Physical Review Letters, 2020, 125, 073203.	7.8	42
44	Considerations for three-dimensional image reconstruction from experimental data in coherent diffractive imaging. IUCrJ, 2018, 5, 531-541.	2.2	40
45	The influence of a single thiol group on the electronic and optical properties of the smallest diamondoid adamantane. Journal of Chemical Physics, 2010, 132, 024710.	3.0	38
46	Generation and structure of extremely large clusters in pulsed jets. Journal of Chemical Physics, 2014, 141, 044306.	3.0	38
47	Communication: X-ray coherent diffractive imaging by immersion in nanodroplets. Structural Dynamics, 2015, 2, 051102.	2.3	38
48	Intrinsic photoluminescence of adamantane in the ultraviolet spectral region. Physical Review B, 2009, 80, .	3.2	35
49	Size and shape dependent photoluminescence and excited state decay rates of diamondoids. Physical Chemistry Chemical Physics, 2014, 16, 3070-3076.	2.8	35
50	Shapes of rotating superfluid helium nanodroplets. Physical Review B, 2017, 95, .	3.2	33
51	Experimental and theoretical study of the absorption properties of thiolated diamondoids. Journal of Chemical Physics, 2010, 132, 144305.	3.0	31
52	Coupled motion of Xe clusters and quantum vortices in He nanodroplets. Physical Review B, 2016, 93, .	3.2	31
53	Chemical Understanding of the Limited Site-Specificity in Molecular Inner-Shell Photofragmentation. Journal of Physical Chemistry Letters, 2018, 9, 1156-1163.	4.6	31
54	Angular Momentum in Rotating Superfluid Droplets. Physical Review Letters, 2020, 124, 215301.	7.8	30

#	Article	IF	Citations
55	Relativistic and resonant effects in the ionization of heavy atoms by ultra-intense hard X-rays. Nature Communications, 2018, 9, 4200.	12.8	29
56	Sensing the wavefront of x-ray free-electron lasers using aerosol spheres. Optics Express, 2013, 21, 12385.	3.4	28
57	The role of transient resonances for ultra-fast imaging of single sucrose nanoclusters. Nature Communications, 2020, 11, 167.	12.8	27
58	Stimulated X-ray Raman scattering â€“ a critical assessment of the building block of nonlinear X-ray spectroscopy. Faraday Discussions, 2016, 194, 305-324.	3.2	25
59	The LAMP instrument at the Linac Coherent Light Source free-electron laser. Review of Scientific Instruments, 2018, 89, 035112.	1.3	24
60	Ab initio structure determination from experimental fluctuation X-ray scattering data. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 11772-11777.	7.1	24
61	Elucidation of the photoaquation reaction mechanism in ferrous hexacyanide using synchrotron x-rays with sub-pulse-duration sensitivity. Journal of Chemical Physics, 2019, 151, 144306.	3.0	24
62	Recombination-Enhanced Surface Expansion of Clusters in Intense Soft X-Ray Laser Pulses. Physical Review Letters, 2016, 117, 153401.	7.8	21
63	Toward unsupervised single-shot diffractive imaging of heterogeneous particles using X-ray free-electron lasers. Optics Express, 2013, 21, 28729.	3.4	20
64	Observing Femtosecond Fragmentation Using Ultrafast X-ray-Induced Auger Spectra. Applied Sciences (Switzerland), 2017, 7, 681.	2.5	19
65	Single-shot diffraction data from the Mimivirus particle using an X-ray free-electron laser. Scientific Data, 2016, 3, 160060.	5.3	18
66	Shapes of rotating normal fluid <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>He</mml:mi><mml:mprescripts /><mml:none /><mml:mn>3</mml:mn></mml:mmultiscripts></mml:math> versus superfluid <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>He</mml:mi><mml:mprescripts /><mml:none /><mml:mn>4</mml:mn></mml:mmultiscripts></mml:math> droplets in molecular beams. Physical Review B, 2020, 102, .	3.2	16
67	Ultrafast Structural Dynamics of Nanoparticles in Intense Laser Fields. Physical Review Letters, 2019, 123, 123201.	7.8	14
68	Imaging plasma formation in isolated nanoparticles with ultrafast resonant scattering. Structural Dynamics, 2020, 7, 034303.	2.3	14
69	Single particle imaging with soft x-rays at the Linac Coherent Light Source. , 2011, , .		12
70	A data set from flash X-ray imaging of carboxysomes. Scientific Data, 2016, 3, 160061.	5.3	11
71	Widely tunable two-color x-ray free-electron laser pulses. Physical Review Research, 2022, 4, .	3.6	8
72	Open data set of live cyanobacterial cells imaged using an X-ray laser. Scientific Data, 2016, 3, 160058.	5.3	7

#	Article	IF	Citations
73	Micro-focused MHz pink beam for time-resolved X-ray emission spectroscopy. Journal of Synchrotron Radiation, 2019, 26, 1956-1966.	2.4	7
74	Crystallization kinetics of atomic crystals revealed by a single-shot and single-particle X-ray diffraction experiment. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	7
75	Aggregation of solutes in bosonic versus fermionic quantum fluids. Science Advances, 2021, 7, eabk2247.	10.3	7
76	Few-femtosecond resolved imaging of laser-driven nanoplasma expansion. New Journal of Physics, 2022, 24, 043024.	2.9	7
77	Free-electron laser data for multiple-particle fluctuation scattering analysis. Scientific Data, 2018, 5, 180201.	5.3	6
78	XUV double-pulses with femtosecond to 650â€...ps separation from a multilayer-mirror-based split-and-delay unit at FLASH. Journal of Synchrotron Radiation, 2018, 25, 1517-1528.	2.4	6
79	Refinement for single-nanoparticle structure determination from low-quality single-shot coherent diffraction data. IUCrJ, 2020, 7, 10-17.	2.2	6
80	Characterizing crystalline defects in single nanoparticles from angular correlations of single-shot diffracted X-rays. IUCrJ, 2020, 7, 276-286.	2.2	4
81	Short-pulse Laser Induced Transient Structure Formation and Ablation Studied with Time-resolved Coherent XUV-scattering. Materials Research Society Symposia Proceedings, 2009, 1230, 1.	0.1	3
82	Relation between Inner Structural Dynamics and Ion Dynamics of Laser-Heated Nanoparticles. Physical Review X, 2021, 11, .	8.9	3
83	Charging and ion ejection dynamics of large helium nanodroplets exposed to intense femtosecond soft X-ray pulses. European Physical Journal: Special Topics, 0, , 1.	2.6	3
84	Clusters and Nanocrystals. , 2020, , 1525-1573.		3
85	Sizes of pure and doped helium droplets from single shot x-ray imaging. Journal of Chemical Physics, 2022, 156, 041102.	3.0	3
86	Multispectroscopic Study of Single Xe Clusters Using XFEL Pulses. Applied Sciences (Switzerland), 2019, 9, 4932.	2.5	2
87	Profiling structured beams using injected aerosols. Proceedings of SPIE, 2012, , .	0.8	1
88	Evaporation of an anisotropic nanoplasma. EPJ Web of Conferences, 2019, 205, 06006.	0.3	1
89	Ultrafast imaging of nanoclusters with intense x-ray laser pulses. , 2011, , .		0
90	Double Core Hole Spectroscopy of Small Molecules. , 2012, , .		0

#	Article	IF	Citations
91	Clusters and Nanocrystals. , 2015, , 1-38.		0
92	Clusters and Nanocrystals. , 2016, , 1323-1364.		0
93	Clusters and Nanocrystals. , 2019, , 1-49.		0