

# Changyong Song

## List of Publications by Year in descending order

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Version: 2024-02-01

58  
papers

3,135  
citations

236833

25  
h-index

161767

54  
g-index

58  
all docs

58  
docs citations

58  
times ranked

3278  
citing authors

#	ARTICLE	IF	CITATIONS
1	Quantitative analysis of the effect of radiation on mitochondria structure using coherent diffraction imaging with a clustering algorithm. IUCr, 2022, 9, 223-230.	1.0	2
2	Characterization of photoinduced normal state through charge density wave in superconducting YBa <sub>2</sub> Cu <sub>3</sub> O <sub>6.67</sub> . Science Advances, 2022, 8, eabk0832.	4.7	3
3	High-Throughput 3D Ensemble Characterization of Individual Core-Shell Nanoparticles with X-ray Free Electron Laser Single-Particle Imaging. ACS Nano, 2021, 15, 4066-4076.	7.3	17
4	Single-Shot Coherent X-ray Imaging Instrument at PAL-XFEL. Applied Sciences (Switzerland), 2021, 11, 5082.	1.3	5
5	Oxidation-induced three-dimensional morphological changes in Ni nanoparticles observed by coherent X-ray diffraction imaging. Journal of Synchrotron Radiation, 2021, 28, 505-511.	1.0	4
6	Denosing low-intensity diffraction signals using $k$ -space deep learning: Applications to phase recovery. Physical Review Research, 2021, 3, .	1.3	3
7	Stochastic chromatin packing of 3D mitotic chromosomes revealed by coherent X-rays. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	4
8	Inducing thermodynamically blocked atomic ordering via strongly driven nonequilibrium kinetics. Science Advances, 2021, 7, eabj8552.	4.7	6
9	Electric Multipole Transitions of Resonant X-ray Scattering for Studying Orbital Specific Magnetization in TmB <sub>4</sub> . Journal of the Korean Physical Society, 2020, 76, 517-521.	0.3	0
10	Megahertz single-particle imaging at the European XFEL. Communications Physics, 2020, 3, .	2.0	58
11	Structural Investigation of Single Specimens with a Femtosecond X-Ray Laser: Routes to Signal-to-Noise Ratio Enhancement. Physical Review Applied, 2020, 13, .	1.5	4
12	Ultrafast x-ray diffraction study of melt-front dynamics in polycrystalline thin films. Science Advances, 2020, 6, eaax2445.	4.7	21
13	Characterizing the intrinsic properties of individual XFEL pulses via single-particle diffraction. Journal of Synchrotron Radiation, 2020, 27, 17-24.	1.0	7
14	Direct observation of picosecond melting and disintegration of metallic nanoparticles. Nature Communications, 2019, 10, 2411.	5.8	43
15	Coherence and pulse duration characterization of the PAL-XFEL in the hard X-ray regime. Scientific Reports, 2019, 9, 3300.	1.6	15
16	Comparing the spatial coherence of the natural and focused X-rays from a free electron laser. Optics Express, 2019, 27, 19573.	1.7	7
17	Necessary Experimental Conditions for Single-Shot Diffraction Imaging of DNA-Based Structures with X-ray Free-Electron Lasers. ACS Nano, 2018, 12, 7509-7518.	7.3	24
18	Imaging the magnetic structures of artificial quasicrystal magnets using resonant coherent diffraction of circularly polarized X-rays. Nanoscale, 2018, 10, 13159-13164.	2.8	5

#	ARTICLE	IF	CITATIONS
19	Atomic level three-dimensional structure of individual particles with XFELs. <i>IUCr</i> , 2018, 5, 522-523.	1.0	2
20	Hydroxyethyl cellulose matrix applied to serial crystallography. <i>Scientific Reports</i> , 2017, 7, 703.	1.6	74
21	Visualization of a Mammalian Mitochondrion by Coherent X-ray Diffractive Imaging. <i>Scientific Reports</i> , 2017, 7, 1850.	1.6	12
22	Coherent soft X-ray diffraction imaging of coliphage PR772 at the Linac coherent light source. <i>Scientific Data</i> , 2017, 4, 170079.	2.4	54
23	Nanosecond pump-probe device for time-resolved serial femtosecond crystallography developed at SACLA. <i>Journal of Synchrotron Radiation</i> , 2017, 24, 1086-1091.	1.0	28
24	Three-dimensional reconstruction for coherent diffraction patterns obtained by XFEL. <i>Journal of Synchrotron Radiation</i> , 2017, 24, 727-737.	1.0	13
25	Single-pulse enhanced coherent diffraction imaging of bacteria with an X-ray free-electron laser. <i>Scientific Reports</i> , 2016, 6, 34008.	1.6	22
26	Fixed target single-shot imaging of nanostructures using thin solid membranes at SACLA. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2016, 49, 034008.	0.6	17
27	A three-dimensional movie of structural changes in bacteriorhodopsin. <i>Science</i> , 2016, 354, 1552-1557.	6.0	350
28	Coherent diffraction of single Rice Dwarf virus particles using hard X-rays at the Linac Coherent Light Source. <i>Scientific Data</i> , 2016, 3, 160064.	2.4	64
29	Coherent diffraction imaging using focused hard X-rays. <i>Journal of the Korean Physical Society</i> , 2016, 68, 1083-1087.	0.3	0
30	Enhancing resolution in coherent x-ray diffraction imaging. <i>Journal of Physics Condensed Matter</i> , 2016, 28, 493001.	0.7	14
31	Redox-coupled structural changes in nitrite reductase revealed by serial femtosecond and microfocus crystallography. <i>Journal of Biochemistry</i> , 2016, 159, 527-538.	0.9	26
32	Redox-coupled proton transfer mechanism in nitrite reductase revealed by femtosecond crystallography. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 2928-2933.	3.3	88
33	Three-dimensional coherent X-ray diffractive imaging of whole frozen-hydrated cells. <i>IUCr</i> , 2015, 2, 575-583.	1.0	78
34	Towards single particle imaging of human chromosomes at SACLA. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2015, 48, 244007.	0.6	7
35	Native sulfur/chlorine SAD phasing for serial femtosecond crystallography. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2015, 71, 2519-2525.	2.5	51
36	Direct observation of bond formation in solution with femtosecond X-ray scattering. <i>Nature</i> , 2015, 518, 385-389.	13.7	207

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37	Diverse application platform for hard X-ray diffraction in SACLA (DAPHNIS): application to serial protein crystallography using an X-ray free-electron laser. <i>Journal of Synchrotron Radiation</i> , 2015, 22, 532-537.	1.0	80
38	Grease matrix as a versatile carrier of proteins for serial crystallography. <i>Nature Methods</i> , 2015, 12, 61-63.	9.0	193
39	Imaging live cell in micro-liquid enclosure by X-ray laser diffraction. <i>Nature Communications</i> , 2014, 5, 3052.	5.8	183
40	Resolution enhancement in coherent x-ray diffraction imaging by overcoming instrumental noise. <i>Optics Express</i> , 2014, 22, 29161.	1.7	18
41	Macromolecular structures probed by combining single-shot free-electron laser diffraction with synchrotron coherent X-ray imaging. <i>Nature Communications</i> , 2014, 5, 3798.	5.8	61
42	Analytic 3D Imaging of Mammalian Nucleus at Nanoscale Using Coherent X-Rays and Optical Fluorescence Microscopy. <i>Biophysical Journal</i> , 2014, 107, 1074-1081.	0.2	24
43	Single-shot three-dimensional structure determination of nanocrystals with femtosecond X-ray free-electron laser pulses. <i>Nature Communications</i> , 2014, 5, 4061.	5.8	91
44	Multiple application X-ray imaging chamber for single-shot diffraction experiments with femtosecond X-ray laser pulses. <i>Journal of Applied Crystallography</i> , 2014, 47, 188-197.	1.9	49
45	Development of an adaptable coherent x-ray diffraction microscope with the emphasis on imaging hydrated specimens. <i>Review of Scientific Instruments</i> , 2013, 84, 113702.	0.6	6
46	Imaging Fully Hydrated Whole Cells by Coherent X-Ray Diffraction Microscopy. <i>Physical Review Letters</i> , 2013, 110, 098103.	2.9	71
47	Three-Dimensional Coherent X-Ray Diffraction Imaging of Molten Iron in Mantle Olivine at Nanoscale Resolution. <i>Physical Review Letters</i> , 2013, 110, 205501.	2.9	45
48	Monte Carlo study for optimal conditions in single-shot imaging with femtosecond x-ray laser pulses. <i>Applied Physics Letters</i> , 2013, 103, .	1.5	18
49	Coherent X-Ray Diffraction Imaging. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2012, 18, 399-410.	1.9	129
50	Coherent diffraction microscopy at SPring-8: instrumentation, data acquisition and data analysis. <i>Journal of Synchrotron Radiation</i> , 2011, 18, 293-298.	1.0	18
51	Quantitative 3D imaging of whole, unstained cells by using X-ray diffraction microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 11234-11239.	3.3	241
52	High numerical aperture tabletop soft x-ray diffraction microscopy with 70-nm resolution. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 24-27.	3.3	156
53	Quantitative Imaging of Single, Unstained Viruses with Coherent X Rays. <i>Physical Review Letters</i> , 2008, 101, 158101.	2.9	167
54	Nanoscale Imaging of Buried Structures with Elemental Specificity Using Resonant X-Ray Diffraction Microscopy. <i>Physical Review Letters</i> , 2008, 100, 025504.	2.9	81

#	ARTICLE	IF	CITATIONS
55	Tabletop Lensless Imaging Using Coherent High Harmonic Beams. , 2007, , .		1
56	Phase retrieval from exactly oversampled diffraction intensity through deconvolution. Physical Review B, 2007, 75, .	1.1	51
57	Three-Dimensional GaN $\delta$ /Ga <sub>2</sub> O <sub>3</sub> Core Shell Structure Revealed by X-Ray Diffraction Microscopy. Physical Review Letters, 2006, 97, 215503.	2.9	117
58	3D microscopy provides the first deep view. , 0, , .		0