

# Yong Q Cai

## List of Publications by Year in descending order

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72  
papers

1,485  
citations

279798

23  
h-index

330143

37  
g-index

73  
all docs

73  
docs citations

73  
times ranked

1391  
citing authors

#	ARTICLE	IF	CITATIONS
1	Altering Terahertz Sound Propagation in a Liquid upon Nanoparticle Immersion. <i>Nanomaterials</i> , 2022, 12, 2401.	4.1	1
2	Signature of Many-Body Localization of Phonons in Strongly Disordered Superlattices. <i>Nano Letters</i> , 2021, 21, 7419-7425.	9.1	1
3	Onset of interfacial waves in the terahertz spectrum of a nanoparticle suspension. <i>Physical Review E</i> , 2020, 102, 022601.	2.1	6
4	The Terahertz Dynamics of an Aqueous Nanoparticle Suspension: An Inelastic X-ray Scattering Study. <i>Nanomaterials</i> , 2020, 10, 860.	4.1	7
5	Shaping the terahertz sound propagation in water under highly directional confinement. <i>Physical Review B</i> , 2020, 101, .	3.2	8
6	Functional lipid pairs as building blocks of phase-separated membranes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 4749-4757.	7.1	20
7	Molecular Picture of the Transient Nature of Lipid Rafts. <i>Langmuir</i> , 2020, 36, 4887-4896.	3.5	26
8	Achieving 3D imaging through focus stacking. <i>AIP Conference Proceedings</i> , 2019, , .	0.4	3
9	X-ray back-diffraction: can we further increase the energy resolution by tuning the energy slightly below that of exact backscattering?. <i>Journal of Applied Crystallography</i> , 2019, 52, 1321-1328.	4.5	0
10	Nanoscale <i>Q</i> -Resolved Phonon Dynamics in Block Copolymers. <i>ACS Applied Nano Materials</i> , 2018, 1, 4918-4926.	5.0	6
11	Damping Off Terahertz Sound Modes of a Liquid upon Immersion of Nanoparticles. <i>ACS Nano</i> , 2018, 12, 8867-8874.	14.6	14
12	Crossover from picosecond collective to single particle dynamics defines the mechanism of lateral lipid diffusion. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2018, 1860, 2446-2455.	2.6	16
13	Evolution of a Novel Ribbon Phase in Optimally Doped $\text{Bi}_{2-x}\text{Sr}_x\text{CaCu}_2\text{O}_{8+\delta}$ at High Pressure and Its Implication to High- <i>T<sub>c</sub></i> Superconductivity. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 4182-4188.	4.6	4
14	Emergent Optical Phononic Modes upon Nanoscale Mesogenic Phase Transitions. <i>Nano Letters</i> , 2017, 17, 3870-3876.	9.1	26
15	Initial performances of first undulator-based hard x-ray beamlines of NSLS-II compared to simulations. <i>AIP Conference Proceedings</i> , 2016, , .	0.4	3
16	On-axis microscopes for the inelastic x-ray scattering beamline at NSLS-II. <i>AIP Conference Proceedings</i> , 2016, , .	0.4	1
17	Thermally triggered phononic gaps in liquids at THz scale. <i>Scientific Reports</i> , 2016, 6, 19469.	3.3	31
18	Construction of a quartz spherical analyzer: application to high-resolution analysis of the Ni <i>K</i> emission spectrum. <i>Journal of Applied Crystallography</i> , 2016, 49, 1443-1453.	4.5	8

#	ARTICLE	IF	CITATIONS
19	Revealing the mechanism of passive transport in lipid bilayers via phonon-mediated nanometre-scale density fluctuations. <i>Nature Communications</i> , 2016, 7, 11575.	12.8	60
20	Terasonic Excitations in 2D Gold Nanoparticle Arrays in a Water Matrix as Revealed by Atomistic Simulations. <i>Journal of Physical Chemistry C</i> , 2016, 120, 19896-19903.	3.1	16
21	The onset of shear modes in the high frequency spectrum of simple disordered systems: current knowledge and perspectives. <i>Philosophical Magazine</i> , 2016, 96, 732-742.	1.6	11
22	Simulation of an IXS imaging analyzer with an extended scattering source. , 2016, , .		2
23	Signature of a polyamorphic transition in the THz spectrum of vitreous GeO <sub>2</sub> . <i>Scientific Reports</i> , 2015, 5, 14996.	3.3	6
24	The Frenkel Line: a direct experimental evidence for the new thermodynamic boundary. <i>Scientific Reports</i> , 2015, 5, 15850.	3.3	47
25	Ultrahigh energy resolution focusing monochromator for inelastic x-ray scattering spectrometer. <i>Optics Express</i> , 2015, 23, 31607.	3.4	1
26	Revealing the Mechanism of the Viscous-to-Elastic Crossover in Liquids. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 3048-3053.	4.6	42
27	Unified phonon-based approach to the thermodynamics of solid, liquid and gas states. <i>Annals of Physics</i> , 2015, 363, 221-242.	2.8	41
28	Compact pseudo-2D strip detector system for sub-meV IXS. <i>Journal of Physics: Conference Series</i> , 2014, 493, 012015.	0.4	0
29	Simulation of the ultrahigh energy resolution IXS analyzer system at NSLS-II. <i>Proceedings of SPIE</i> , 2014, , .	0.8	0
30	Partially coherent wavefront propagation simulations for inelastic x-ray scattering beamline including crystal optics. , 2014, , .		5
31	Performance of a collimating L-shaped laterally graded multilayer mirror for the IXS analyzer system at NSLS-II. <i>Journal of Synchrotron Radiation</i> , 2014, 21, 473-478.	2.4	8
32	High-quality quartz single crystals for high-energy-resolution inelastic X-ray scattering analyzers. <i>Journal of Applied Crystallography</i> , 2013, 46, 939-944.	4.5	14
33	An X-ray Raman spectrometer for EXAFS studies of minerals: bent Laue spectrometer with 20 keV X-rays. <i>Journal of Synchrotron Radiation</i> , 2013, 20, 266-271.	2.4	25
34	Electronic structure of carbon dioxide under pressure and insights into the molecular-to-nonmolecular transition. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 18402-18406.	7.1	24
35	Sagittal focusing inducing energy structure in medium to high energy resolution x-ray monochromators. <i>Proceedings of SPIE</i> , 2013, , .	0.8	1
36	The Ultrahigh Resolution IXS Beamline of NSLS-II: Recent Advances and Scientific Opportunities. <i>Journal of Physics: Conference Series</i> , 2013, 425, 202001.	0.4	30

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37	Realizing an Analyzer Instrument for Medium-energy Sub-meV IXS. Journal of Physics: Conference Series, 2013, 425, 052032. Electronic excitations around the substituted atom in La	0.4	1
38	Electronic excitations around the substituted atom in La Cu	3.2	3
39	Spin transition of ferric iron in Al-bearing Mg <sup>2+</sup> perovskite up to 200 GPa and its implication for the lower mantle. Earth and Planetary Science Letters, 2012, 317-318, 407-412.	4.4	47
40	Dispersive spread of virtual sources by asymmetric X-ray monochromators. Journal of Applied Crystallography, 2012, 45, 255-262.	4.5	18
41	Multiple-Wave Diffraction in High Energy Resolution Back-Reflecting X-Ray Optics. Physical Review Letters, 2011, 107, 155503.	7.8	8
42	Dynamical modeling of high-energy-resolution x-ray optics. Proceedings of SPIE, 2011, , .	0.8	0
43	dd excitations in three-dimensional q-space: A nonresonant inelastic X-ray scattering study on NiO. Europhysics Letters, 2011, 96, 37007.	2.0	19
44	Thermo-mechanical analyses of beryllium compound refractive lens for NSLS-II beamline. Diamond Light Source Proceedings, 2011, 1, .	0.1	0
45	Synchrotron X-ray tests of an L-shaped laterally graded multilayer mirror for the analyzer system of the ultra-high-resolution IXS spectrometer at NSLS-II. Journal of Synchrotron Radiation, 2011, 18, 862-870.	2.4	16
46	Inelastic x-ray scattering study on the single excitations of helium. Journal of Physics B: Atomic, Molecular and Optical Physics, 2011, 44, 025203.	1.5	48
47	Structural and microscopic relaxations in glycerol: An inelastic x-ray scattering study. Journal of Chemical Physics, 2011, 134, 184502.	3.0	10
48	Parametric Optimization of Undulators for NSLS-II Project Beamlines. AIP Conference Proceedings, 2010, , .	0.4	4
49	Resonant inelastic X-ray scattering of $La$ Physica C: Superconductivity and Its Applications, 2010, 470, S155-S157.	1.2	0
50	Tracing X-rays through an L-shaped laterally graded multilayer mirror: a synchrotron application. Journal of Synchrotron Radiation, 2010, 17, 352-359.	2.4	17
51	Inelastic x-ray scattering study of the state-resolved differential cross section of Compton excitations in helium atoms. Physical Review A, 2010, 82, .	2.5	69
52	Electronic Structure of Crystalline $He$ at High Pressures. Physical Review Letters, 2010, 105, 186404.	7.8	26
53	High-pressure evolution of $Fe$ structure revealed by x-ray absorption. Physical Review B, 2010, 82, .	1.2	16
54	High-Pressure Studies by X-ray Raman Scattering. Synchrotron Radiation News, 2010, 23, 26-31.	0.8	12

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55	X-ray Raman scattering for structural investigation of silica/silicate minerals. Physics and Chemistry of Minerals, 2009, 36, 171-181.	0.8	19
56	Charge transfer and dd excitations in transition metal oxides. European Physical Journal B, 2009, 70, 157-162.	1.5	26
57	Cost-effective upgrade of a focusing system for inelastic X-ray scattering experiments under high pressure. Journal of Synchrotron Radiation, 2008, 15, 50-54.	2.4	5
58	X-ray Raman scattering study of MgSiO <sub>3</sub> glass at high pressure: Implication for triclustered MgSiO <sub>3</sub> melt in Earth's mantle. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 7925-7929.	7.1	123
59	Anomalous Angular Dependence of the Dynamic Structure Factor near Bragg Reflections: Graphite. Physical Review Letters, 2008, 101, 266406.	7.8	23
60	Pressure-Induced Valence Anomaly in TmTe Probed by Resonant Inelastic X-Ray Scattering. Physical Review Letters, 2008, 101, 127401.	7.8	27
61	Coordination environment of silicon in silica glass up to 74 GPa: An x-ray Raman scattering study at the silicon $L$ edge. Physical Review B, 2008, 78, .	3.2	38
62	Development of ultrahigh-resolution inelastic x-ray scattering optics. Proceedings of SPIE, 2008, , .	0.8	0
63	Observation of strain and temperature induced changes in the band structure of thin La <sub>0.8</sub> MnO <sub>3</sub> films. Applied Physics Letters, 2007, 90, 101915.	3.3	1
64	Electronic bonding transition in compressed SiO <sub>2</sub> glass. Physical Review B, 2007, 75, .	3.2	81
65	X-ray-Induced Dissociation of H <sub>2</sub> O and Formation of an O <sub>2</sub> -H <sub>2</sub> Alloy at High Pressure. Science, 2006, 314, 636-638.	12.6	84
66	Low-Energy Charge-Density Excitations in MgB <sub>2</sub> : Striking Interplay between Single-Particle and Collective Behavior for Large Momenta. Physical Review Letters, 2006, 97, 176402.	7.8	33
67	Localized and Delocalized Excitons: Resonant Inelastic X-Ray Scattering in La <sub>2-x</sub> Sr <sub>x</sub> NiO <sub>4</sub> and La <sub>2-x</sub> Sr <sub>x</sub> CuO <sub>4</sub> . Physical Review Letters, 2006, 96, 157004.	7.8	55
68	Use of deep reactive ion etching in the fabrication of high-efficiency high-resolution crystal x-ray analyzers. , 2002, , .		1
69	Magnetic and structural $\mu$ phase transition in Fe monitored by x-ray emission spectroscopy. Physical Review B, 1999, 60, 14510-14512.	3.2	79
70	Circular dichroism in the angular distribution of core-level photoelectrons from GaAs (111). Journal of Electron Spectroscopy and Related Phenomena, 1998, 88-91, 219-223.	1.7	1
71	Electron-Lattice Interaction on $\Gamma$ -Ga(010). Physical Review Letters, 1998, 81, 1670-1673.	7.8	47
72	Photoelectron Spectroscopic Study of Coadsorbed States of Cs and O on GaAs(100). Journal of the Physical Society of Japan, 1997, 66, 2798-2804.	1.6	13