

Ian K Robinson

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9525804/publications.pdf>

Version: 2024-02-01

295
papers

14,181
citations

28274

55
h-index

23533

111
g-index

302
all docs

302
docs citations

302
times ranked

10724
citing authors

#	ARTICLE	IF	CITATIONS
1	Crystal truncation rods and surface roughness. <i>Physical Review B</i> , 1986, 33, 3830-3836.	3.2	889
2	Surface X-ray diffraction. <i>Reports on Progress in Physics</i> , 1992, 55, 599-651.	20.1	719
3	GexSi1-x/Si strained-layer superlattice grown by molecular beam epitaxy. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1984, 2, 436-440.	2.1	656
4	Three-dimensional mapping of a deformation field inside a nanocrystal. <i>Nature</i> , 2006, 442, 63-66.	27.8	625
5	Beyond crystallography: Diffractive imaging using coherent x-ray light sources. <i>Science</i> , 2015, 348, 530-535.	12.6	596
6	Coherent X-ray diffraction imaging of strain at the nanoscale. <i>Nature Materials</i> , 2009, 8, 291-298.	27.5	558
7	Reconstruction of the Shapes of Gold Nanocrystals Using Coherent X-Ray Diffraction. <i>Physical Review Letters</i> , 2001, 87, 195505.	7.8	381
8	Direct Determination of the Au(110) Reconstructed Surface by X-Ray Diffraction. <i>Physical Review Letters</i> , 1983, 50, 1145-1148.	7.8	296
9	Three-Dimensional Imaging of Microstructure in Au Nanocrystals. <i>Physical Review Letters</i> , 2003, 90, 175501.	7.8	273
10	How Water Meets a Hydrophobic Surface. <i>Physical Review Letters</i> , 2006, 97, 266101.	7.8	271
11	Ultrafast Three-Dimensional Imaging of Lattice Dynamics in Individual Gold Nanocrystals. <i>Science</i> , 2013, 341, 56-59.	12.6	264
12	Three-dimensional imaging of strain in a single ZnO nanorod. <i>Nature Materials</i> , 2010, 9, 120-124.	27.5	245
13	Translation position determination in ptychographic coherent diffraction imaging. <i>Optics Express</i> , 2013, 21, 13592.	3.4	242
14	X-Ray Photon Correlation Spectroscopy Study of Brownian Motion of Gold Colloids in Glycerol. <i>Physical Review Letters</i> , 1995, 75, 449-452.	7.8	219
15	Origin of structural degradation in Li-rich layered oxide cathode. <i>Nature</i> , 2022, 606, 305-312.	27.8	206
16	Synthesis of core-shell gold coated magnetic nanoparticles and their interaction with thiolated DNA. <i>Nanoscale</i> , 2010, 2, 2624.	5.6	195
17	High-resolution three-dimensional partially coherent diffraction imaging. <i>Nature Communications</i> , 2012, 3, 993.	12.8	159
18	Partial coherence effects on the imaging of small crystals using coherent x-ray diffraction. <i>Journal of Physics Condensed Matter</i> , 2001, 13, 10593-10611.	1.8	150

#	ARTICLE	IF	CITATIONS
19	Optimization of overlap uniformness for ptychography. <i>Optics Express</i> , 2014, 22, 12634.	3.4	150
20	Hard X-ray dark-field imaging with incoherent sample illumination. <i>Applied Physics Letters</i> , 2014, 104, .	3.3	145
21	Three-dimensional imaging of dislocation propagation during crystal growth and dissolution. <i>Nature Materials</i> , 2015, 14, 780-784.	27.5	143
22	Commensurate and incommensurate structures in molecular beam epitaxially grown $GexSi_{1-x}$ films on Si(100). <i>Journal of Applied Physics</i> , 1984, 56, 1227-1229.	2.5	139
23	Non-Ising behavior of the Pt(110) surface phase transition. <i>Physical Review Letters</i> , 1989, 63, 2578-2581.	7.8	134
24	Structure of Quantum Wires in Au/Si(557). <i>Physical Review Letters</i> , 2002, 88, 096104.	7.8	129
25	Phase retrieval by coherent modulation imaging. <i>Nature Communications</i> , 2016, 7, 13367.	12.8	125
26	X-ray interference method for studying interface structures. <i>Physical Review B</i> , 1988, 38, 3632-3635.	3.2	117
27	11 nm hard X-ray focus from a large-aperture multilayer Laue lens. <i>Scientific Reports</i> , 2013, 3, 3562.	3.3	117
28	Shearing Interferometer for Quantifying the Coherence of Hard X-Ray Beams. <i>Physical Review Letters</i> , 2005, 94, 164801.	7.8	116
29	Crystal Nucleation, Growth, and Morphology of the Synthetic Malaria Pigment \hat{I}^2 -Hematin and the Effect Thereon by Quinoline Additives: A The Malaria Pigment as a Target of Various Antimalarial Drugs. <i>Journal of the American Chemical Society</i> , 2007, 129, 2615-2627.	13.7	113
30	Crystal truncation rod diffraction study of the \hat{I}^{\pm} -Al ₂ O ₃ (102) surface. <i>Surface Science</i> , 2002, 496, 238-250.	1.9	110
31	Ordering at Si(111) and Si(111)/SiO ₂ Interfaces. <i>Physical Review Letters</i> , 1986, 57, 2714-2717.	7.8	107
32	Oxygen-induced missing-row reconstruction of Cu(001) and Cu(001)-vicinal surfaces. <i>Physical Review B</i> , 1990, 42, 6954-6962.	3.2	105
33	Critical thickness of GaN thin films on sapphire (0001). <i>Applied Physics Letters</i> , 1996, 69, 2358-2360.	3.3	105
34	Synthesis and Characterization of Magnetic Nanoalloys from Bimetallic Carbonyl Clusters. <i>Chemistry of Materials</i> , 2009, 21, 3021-3026.	6.7	99
35	3D lattice distortions and defect structures in ion-implanted nano-crystals. <i>Scientific Reports</i> , 2017, 7, 45993.	3.3	96
36	Thermodynamics of Surface Segregation Profiles at Cu ₃ Au(001) Resolved by X-Ray Scattering. <i>Physical Review Letters</i> , 1995, 74, 2006-2009.	7.8	93

#	ARTICLE	IF	CITATIONS
37	Fly-scan ptychography. <i>Scientific Reports</i> , 2015, 5, 9074.	3.3	93
38	Cobalt nanoparticles as a novel magnetic resonance contrast agent—relaxivities at 1.5 and 3 Tesla. <i>Contrast Media and Molecular Imaging</i> , 2008, 3, 150-156.	0.8	92
39	Coherent diffraction imaging of nanoscale strain evolution in a single crystal under high pressure. <i>Nature Communications</i> , 2013, 4, 1680.	12.8	88
40	Observation of strain in the Si(111) 7\AA -7 surface. <i>Physical Review B</i> , 1988, 37, 4325-4328.	3.2	85
41	X-Ray Phase-Contrast Imaging with Nanoradian Angular Resolution. <i>Physical Review Letters</i> , 2013, 110, 138105.	7.8	77
42	Analysis of strain and stacking faults in single nanowires using Bragg coherent diffraction imaging. <i>New Journal of Physics</i> , 2010, 12, 035013.	2.9	71
43	Core-shell strain structure of zeolite microcrystals. <i>Nature Materials</i> , 2013, 12, 729-734.	27.5	68
44	Continuous scanning mode for ptychography. <i>Optics Letters</i> , 2014, 39, 6066.	3.3	68
45	3D Imaging of Twin Domain Defects in Gold Nanoparticles. <i>Nano Letters</i> , 2015, 15, 4066-4070.	9.1	68
46	Orientation variation of surface strain. <i>Physical Review B</i> , 2007, 76, .	3.2	66
47	Differential stress induced by thiol adsorption on faceted nanocrystals. <i>Nature Materials</i> , 2011, 10, 862-866.	27.5	65
48	Domain structure of the clean reconstructed Au(110) surface. <i>Physical Review B</i> , 1984, 29, 4762-4764.	3.2	64
49	Proximity effects and nonequilibrium superconductivity in transition-edge sensors. <i>Physical Review B</i> , 2011, 84, .	3.2	64
50	The use of DAPI fluorescence lifetime imaging for investigating chromatin condensation in human chromosomes. <i>Scientific Reports</i> , 2016, 6, 31417.	3.3	64
51	Electrochemical copper deposition on Au(100): a combined in situ STM and in situ surface X-ray diffraction study. <i>Surface Science</i> , 2000, 447, 187-200.	1.9	63
52	Size and shape control for water-soluble magnetic cobalt nanoparticles using polymer ligands. <i>Journal of Materials Chemistry</i> , 2008, 18, 2453.	6.7	63
53	Dynamic Imaging Using Ptychography. <i>Physical Review Letters</i> , 2014, 112, 113901.	7.8	60
54	Imaging transient melting of a nanocrystal using an X-ray laser. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 7444-7448.	7.1	59

#	ARTICLE	IF	CITATIONS
55	Multi-slice ptychography with large numerical aperture multilayer Laue lenses. <i>Optica</i> , 2018, 5, 601.	9.3	57
56	Adsorbate-Geometry Specific Subsurface Relaxation in the CO/Pt(111) System. <i>Journal of Physical Chemistry B</i> , 2005, 109, 24-26.	2.6	55
57	Beam tracking approach for single-shot retrieval of absorption, refraction, and dark-field signals with laboratory x-ray sources. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	55
58	Charge density waves in cuprate superconductors beyond the critical doping. <i>Npj Quantum Materials</i> , 2021, 6, .	5.2	55
59	Reconstruction of surface morphology from coherent x-ray reflectivity. <i>Physical Review B</i> , 1997, 55, 13193-13202.	3.2	54
60	Origins of decoherence in coherent X-ray diffraction experiments. <i>Optics Communications</i> , 2003, 222, 29-50.	2.1	53
61	Room temperature Si(001)-(2 Å ⁻¹) reconstruction solved by X-ray diffraction. <i>Surface Science</i> , 1997, 375, 55-62.	1.9	52
62	Comparison of aqueous and native oxide formation on Cu(111). <i>Journal of Chemical Physics</i> , 1999, 110, 5952-5959.	3.0	52
63	Three-Dimensional Structure Analysis and Percolation Properties of a Barrier Marine Coating. <i>Scientific Reports</i> , 2013, 3, 1177.	3.3	51
64	Multimodality hard-x-ray imaging of a chromosome with nanoscale spatial resolution. <i>Scientific Reports</i> , 2016, 6, 20112.	3.3	51
65	Surface atomic structure of the reconstructions of Ag(111) and Cu(111). <i>Surface Science</i> , 1998, 414, 159-169.	1.9	49
66	Coherent x-ray diffraction imaging of silicon oxide growth. <i>Physical Review B</i> , 1999, 60, 9965-9972.	3.2	48
67	Effectiveness of iterative algorithms in recovering phase in the presence of noise. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2007, 63, 36-42.	0.3	47
68	Zinc Oxide Nanostructures and High Electron Mobility Nanocomposite Thin Film Transistors. <i>IEEE Transactions on Electron Devices</i> , 2008, 55, 3001-3011.	3.0	46
69	Atmospheric pressure oxidation of Pt(111). <i>Journal of Physics Condensed Matter</i> , 2008, 20, 184013.	1.8	44
70	Structure of Cu(115): Clean surface and its oxygen-induced facets. <i>Physical Review B</i> , 1999, 59, 15446-15456.	3.2	43
71	Adsorption Configuration and Local Ordering of Silicotungstate Anions on Ag(100) Electrode Surfaces. <i>Journal of the American Chemical Society</i> , 2001, 123, 8838-8843.	13.7	42
72	Coherent X-ray scattering and lensless imaging at the European XFEL Facility. <i>Journal of Synchrotron Radiation</i> , 2007, 14, 453-470.	2.4	42

#	ARTICLE	IF	CITATIONS
73	Direct Separation of Short Range Order in Intermixed Nanocrystalline and Amorphous Phases. <i>Physical Review Letters</i> , 2002, 89, 285503.	7.8	41
74	Strain-relief by single dislocation loops in calcite crystals grown on self-assembled monolayers. <i>Nature Communications</i> , 2016, 7, 11878.	12.8	41
75	Properties of an electrochemically deposited Pb monolayer on Cu(111). <i>Physical Review B</i> , 1997, 55, 7945-7954.	3.2	40
76	Surface alloying and dealloying in at low coverage. <i>Surface Science</i> , 1997, 381, L551-L557.	1.9	40
77	Imaging of complex density in silver nanocubes by coherent x-ray diffraction. <i>New Journal of Physics</i> , 2010, 12, 035019.	2.9	40
78	Longitudinal coherence function in X-ray imaging of crystals. <i>Optics Express</i> , 2009, 17, 15853.	3.4	39
79	X-ray Crystallography of Surfaces and Interfaces. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 1998, 54, 772-778.	0.3	37
80	Superstructure ordering in lanthanum-doped lead magnesium niobate. <i>Journal of Applied Physics</i> , 2000, 87, 840-848.	2.5	37
81	Three-Dimensional Coherent X-Ray Diffraction Microscopy. <i>MRS Bulletin</i> , 2004, 29, 177-181.	3.5	37
82	Three-dimensional positioning and structure of chromosomes in a human prophase nucleus. <i>Science Advances</i> , 2017, 3, e1602231.	10.3	37
83	Observation and explanation of one-dimensional x-ray speckle patterns from synthetic multilayers. <i>Physical Review B</i> , 1995, 52, 9917-9924.	3.2	36
84	Solving the structure completion problem in surface crystallography. <i>Computer Physics Communications</i> , 2001, 137, 12-24.	7.5	36
85	Three-dimensional Bragg coherent diffraction imaging of an extended ZnO crystal. <i>Journal of Applied Crystallography</i> , 2012, 45, 778-784.	4.5	35
86	Phase-contrast microscopy at high x-ray energy with a laboratory setup. <i>Optics Letters</i> , 2014, 39, 3332.	3.3	35
87	Artifact mitigation of ptychography integrated with on-the-fly scanning probe microscopy. <i>Applied Physics Letters</i> , 2017, 111, .	3.3	34
88	Use of coherent X-ray diffraction to map strain fields in nanocrystals. <i>Applied Surface Science</i> , 2001, 182, 186-191.	6.1	33
89	Atomic Diffusion within Individual Gold Nanocrystal. <i>Scientific Reports</i> , 2014, 4, 6765.	3.3	33
90	Single-image phase retrieval using an edge illumination X-ray phase-contrast imaging setup. <i>Journal of Synchrotron Radiation</i> , 2015, 22, 1072-1077.	2.4	33

#	ARTICLE	IF	CITATIONS
91	Evaluation of partial coherence correction in X-ray ptychography. <i>Optics Express</i> , 2015, 23, 5452.	3.4	32
92	Coherent x-ray diffraction from quantum dots. <i>Physical Review B</i> , 2005, 71, .	3.2	31
93	Calculation of crystal truncation rod structure factors for arbitrary rational surface terminations. <i>Journal of Applied Crystallography</i> , 2002, 35, 696-701.	4.5	30
94	Imaging of quantum array structures with coherent and partially coherent diffraction. <i>Journal of Synchrotron Radiation</i> , 2003, 10, 409-415.	2.4	30
95	Charge density wave memory in a cuprate superconductor. <i>Nature Communications</i> , 2019, 10, 1435.	12.8	30
96	Critical thickness for the agglomeration of thin metal films. <i>Physical Review B</i> , 2009, 79, .	3.2	29
97	Coherent X-ray diffraction from collagenous soft tissues. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 15297-15301.	7.1	29
98	Quantitative X-ray wavefront measurements of Fresnel zone plate and K-B mirrors using phase retrieval. <i>Optics Express</i> , 2012, 20, 24038.	3.4	29
99	Speckle in coherent x-ray reflectivity from Si(111) wafers. <i>Physical Review B</i> , 1997, 56, 6454-6457.	3.2	28
100	Enhancement of coherent X-ray diffraction from nanocrystals by introduction of X-ray optics. <i>Optics Express</i> , 2003, 11, 2329.	3.4	28
101	Coherent X-ray Diffraction Imaging and Characterization of Strain in Silicon Insulator Nanostructures. <i>Advanced Materials</i> , 2014, 26, 7747-7763.	21.0	28
102	X-ray absorption, phase and dark-field tomography through a beam tracking approach. <i>Scientific Reports</i> , 2015, 5, 16318.	3.3	28
103	Glancing-incidence focussed ion beam milling: A coherent X-ray diffraction study of 3D nano-scale lattice strains and crystal defects. <i>Acta Materialia</i> , 2018, 154, 113-123.	7.9	28
104	Surface Structure of \pm -Ga(010). <i>Physical Review Letters</i> , 1998, 81, 626-629.	7.8	27
105	In Situ Bragg Coherent Diffraction Imaging Study of a Cement Phase Microcrystal during Hydration. <i>Crystal Growth and Design</i> , 2015, 15, 3087-3091.	3.0	27
106	Achieving hard X-ray nanofocusing using a wedged multilayer Laue lens. <i>Optics Express</i> , 2015, 23, 12496.	3.4	27
107	Deformation Twinning of a Silver Nanocrystal under High Pressure. <i>Nano Letters</i> , 2015, 15, 7644-7649.	9.1	27
108	Complex imaging of phase domains by deep neural networks. <i>IUCr</i> , 2021, 8, 12-21.	2.2	27

#	ARTICLE	IF	CITATIONS
109	Nanoparticle Structure by Coherent X-ray Diffraction. Journal of the Physical Society of Japan, 2013, 82, 021012.	1.6	26
110	Virtual edge illumination and one dimensional beam tracking for absorption, refraction, and scattering retrieval. Applied Physics Letters, 2014, 104, 134102.	3.3	26
111	Visualization of the effect of additives on the nanostructures of individual bio-inspired calcite crystals. Chemical Science, 2019, 10, 1176-1185.	7.4	26
112	Surface-Induced Giant Anisotropy in the Order Parameter Relaxation at Cu ₃ Au(001). Physical Review Letters, 1997, 78, 3475-3478.	7.8	25
113	Internal structure in small Au crystals resolved by three-dimensional inversion of coherent x-ray diffraction. Physical Review B, 2006, 73, .	3.2	25
114	Fabrication of water-soluble magnetic nanoparticles by ligand-exchange with thermo-responsive polymers. Journal of Magnetism and Magnetic Materials, 2009, 321, 1421-1423.	2.3	25
115	Atomistic simulation of diffuse x-ray scattering from defects in solids. Journal of Applied Physics, 2000, 88, 2278-2288.	2.5	24
116	Imaging of cochlear tissue with a grating interferometer and hard X-rays. Microscopy Research and Technique, 2009, 72, 902-907.	2.2	24
117	Micro-beam Laue alignment of multi-reflection Bragg coherent diffraction imaging measurements. Journal of Synchrotron Radiation, 2017, 24, 1048-1055.	2.4	24
118	Formation of an Au-Si eutectic on a clean silicon surface. Physical Review B, 2009, 79, .	3.2	23
119	Exploration of crystal strains using coherent x-ray diffraction. New Journal of Physics, 2010, 12, 035022.	2.9	23
120	Phase retrieval of diffraction from highly strained crystals. Physical Review B, 2010, 82, .	3.2	23
121	3D X-Ray Nanotomography of Cells Grown on Electrospun Scaffolds. Macromolecular Bioscience, 2017, 17, 1600236.	4.1	23
122	<i>Operando</i> Bragg Coherent Diffraction Imaging of LiNi _{0.8} Mn _{0.1} Co _{0.1} O ₂ Primary Particles within Commercially Printed NMC811 Electrode Sheets. ACS Nano, 2021, 15, 1321-1330.	14.6	23
123	Buffer layer strain transfer in AlN/GaN near critical thickness. Journal of Applied Physics, 1999, 85, 4040-4044.	2.5	22
124	Propagation uniqueness in three-dimensional coherent diffractive imaging. Physical Review B, 2011, 83, .	3.2	22
125	Coherent X-Ray Diffraction Imaging of Morphology and Strain in Nanomaterials. Jom, 2013, 65, 1202-1207.	1.9	22
126	Compositional ordering in SiGe alloy thin films. Physical Review B, 1998, 57, 12410-12420.	3.2	21

#	ARTICLE	IF	CITATIONS
127	Thickness Induced Buckling of bcc Copper Films. <i>Physical Review Letters</i> , 1999, 83, 780-783.	7.8	21
128	Pore structure development during hydration of tricalcium silicate by X-ray nano-imaging in three dimensions. <i>Construction and Building Materials</i> , 2019, 200, 318-323.	7.2	21
129	Ultrafast x-ray diffraction study of melt-front dynamics in polycrystalline thin films. <i>Science Advances</i> , 2020, 6, eaax2445.	10.3	21
130	Synthesis of Co Nanoparticles by Pulsed Laser Irradiation of Cobalt Carbonyl in Organic Solution. <i>Journal of Physical Chemistry C</i> , 2009, 113, 9497-9501.	3.1	20
131	Karyotyping Human Chromosomes by Optical and X-Ray Ptychography Methods. <i>Biophysical Journal</i> , 2015, 108, 706-713.	0.5	20
132	Spontaneous Magnetic Superdomain Wall Fluctuations in an Artificial Antiferromagnet. <i>Physical Review Letters</i> , 2019, 123, 197202.	7.8	20
133	X-ray ptychography on low-dimensional hard-condensed matter materials. <i>Applied Physics Reviews</i> , 2019, 6, 011306.	11.3	20
134	Three-dimensional coherent X-ray diffraction imaging via deep convolutional neural networks. <i>Npj Computational Materials</i> , 2021, 7, .	8.7	20
135	Energetics of oxygen-induced faceting on Cu(115). <i>Physical Review B</i> , 2001, 64, .	3.2	19
136	Coherent X-ray diffraction investigation of twinned microcrystals. <i>Journal of Synchrotron Radiation</i> , 2010, 17, 751-760.	2.4	19
137	Elastic relaxation in an ultrathin strained silicon-on-insulator structure. <i>Applied Physics Letters</i> , 2011, 99, 114103.	3.3	19
138	Laser-induced transient magnons in Sr ₃ Ir ₂ O ₇ throughout the Brillouin zone. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	19
139	X-ray determination of the 1Å–3 reconstruction of Pt(110). <i>Physical Review B</i> , 1993, 47, 10700-10705.	3.2	18
140	Structural Trends among Ionic Metal-Halide Adlayers on Electrode Surfaces. <i>Journal of Physical Chemistry B</i> , 2000, 104, 7951-7959.	2.6	18
141	Coherent grazing exit x-ray scattering geometry for probing the structure of thin films. <i>Applied Physics Letters</i> , 2004, 84, 1847-1849.	3.3	18
142	Coherent X-ray diffractive imaging of protein crystals. <i>Journal of Synchrotron Radiation</i> , 2008, 15, 576-583.	2.4	18
143	Focus on X-ray beams with high coherence. <i>New Journal of Physics</i> , 2010, 12, 035002.	2.9	18
144	Performance evaluation of Bragg coherent diffraction imaging. <i>New Journal of Physics</i> , 2017, 19, 103001.	2.9	18

#	ARTICLE	IF	CITATIONS
145	A technique for high-frequency laser-pump X-ray probe experiments at the APS. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 649, 191-193.	1.6	16
146	A single-image retrieval method for edge illumination X-ray phase-contrast imaging: Application and noise analysis. Physica Medica, 2016, 32, 1759-1764.	0.7	16
147	Static charge-density-wave order in the superconducting state of $\text{La}_{1-x}\text{Pr}_x\text{FeAs}_2$. Physical Review B, 2017, 95, .	3.2	14
148	Imaging the Phase Transformation in Single Particles of the Lithium Titanate Anode for Lithium-Ion Batteries. ACS Applied Energy Materials, 2021, 4, 111-118.	5.1	16
149	Pokrovsky-Talapov commensurate-incommensurate transition in the CO/Pd(100) system. Physical Review B, 1996, 54, 17097-17101.	3.2	14
150	Cs-Induced Relaxation of the Cu(110) Surface. Physical Review Letters, 1996, 76, 1671-1674.	7.8	14
151	Damage accumulation in Si during high-dose self-ion implantation. Journal of Applied Physics, 2004, 96, 1328-1335.	2.5	14
152	Clustering of Au on the faulted half of the Si(111)- $\sqrt{7}\times\sqrt{7}$ unit cell. Physical Review B, 2005, 71, .	3.2	14
153	Giant molecules or tiny crystals?. Nature Materials, 2008, 7, 275-276.	27.5	14
154	Diffraction refinement of localized antibonding at the Si(111) $\sqrt{7}\times\sqrt{7}$ surface. Physical Review B, 2009, 79, .	3.2	14
155	Staining and Embedding of Human Chromosomes for 3-D Serial Block-Face Scanning Electron Microscopy. BioTechniques, 2014, 57, 302-307.	1.8	14
156	Brownian motion studies of viscoelastic colloidal gels by rotational single particle tracking. IUCr, 2014, 1, 172-178.	2.2	14
157	Electronic nematicity in Sr_2RuO_4 . Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 10654-10659.	7.1	14
158	Vibrational Anisotropy of a CO Monolayer on Ni(110). Europhysics Letters, 1995, 32, 37-42.	2.0	13
159	Coherent diffraction patterns of individual dislocation strain fields. Journal Physics D: Applied Physics, 2005, 38, A7-A10.	2.8	13
160	Imaging antiferromagnetic antiphase domain boundaries using magnetic Bragg diffraction phase contrast. Nature Communications, 2018, 9, 5013.	12.8	13
161	Vacancy-Driven Noncubic Local Structure and Magnetic Anisotropy Tailoring in FeO . Physical Review X, 2019, 9, .	3.9	13
162	Anomalous coverage behavior of the Cs β -Ag distance on. Surface Science, 1995, 326, L477-L482.	1.9	12

#	ARTICLE	IF	CITATIONS
163	Perturbation method of analysis of crystal truncation rod data. <i>Journal of Applied Crystallography</i> , 2005, 38, 299-305.	4.5	12
164	Confocal Microscope Alignment of Nanocrystals for Coherent Diffraction Imaging. <i>AIP Conference Proceedings</i> , 2010, , .	0.4	12
165	A simple filtration technique for obtaining purified human chromosomes in suspension. <i>BioTechniques</i> , 2014, 56, 257-261.	1.8	12
166	Observations of artefacts in the x-ray ptychography method. <i>Optics Express</i> , 2014, 22, 10294.	3.4	12
167	Coherent X-Ray Imaging of Collagen Fibril Distributions within Intact Tendons. <i>Biophysical Journal</i> , 2014, 106, 459-466.	0.5	12
168	Bragg Coherent Diffractive Imaging of Zinc Oxide Acoustic Phonons at Picosecond Timescales. <i>Scientific Reports</i> , 2017, 7, 9823.	3.3	12
169	Coherent diffraction study of calcite crystallization during the hydration of tricalcium silicate. <i>Materials and Design</i> , 2018, 157, 251-257.	7.0	12
170	Multimodal Imaging of Autofluorescent Sites Reveals Varied Chemical Speciation in SSZâ€13 Crystals. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 5125-5131.	13.8	12
171	Evolution of ferroelastic domain walls during phase transitions in barium titanate nanoparticles. <i>Physical Review Materials</i> , 2020, 4, .	2.4	12
172	Asymmetric Fraunhofer Diffraction from Roller-Blade Slits. <i>Journal of Synchrotron Radiation</i> , 1997, 4, 125-127.	2.4	11
173	SURFACE STRUCTURE OF O/Cu(104) FACETS DETERMINED BY X-RAY DIFFRACTION. <i>Surface Review and Letters</i> , 1999, 06, 851-857.	1.1	11
174	Streaked speckle in Cu ₃ Au coherent x-ray diffraction. <i>Physical Review B</i> , 2000, 62, 13084-13088.	3.2	11
175	Poynor<i>etÂal.</i> Reply:. <i>Physical Review Letters</i> , 2008, 101, .	7.8	11
176	The Diamond Beamline I13L for Imaging and Coherence. , 2010, , .		11
177	Materials science in the time domain using Bragg coherent diffraction imaging. <i>Journal of Optics (United Kingdom)</i> , 2016, 18, 054007.	2.2	11
178	Bragg coherent diffraction imaging of iron diffusion into gold nanocrystals. <i>New Journal of Physics</i> , 2018, 20, 113026.	2.9	11
179	Time-resolved in situ visualization of the structural response of zeolites during catalysis. <i>Nature Communications</i> , 2020, 11, 5901.	12.8	11
180	X-ray Ptychography Imaging of Human Chromosomes After Low-dose Irradiation. <i>Chromosome Research</i> , 2021, 29, 107-126.	2.2	11

#	ARTICLE	IF	CITATIONS
181	Evolution of Surface Morphology and Strain in Low-Temperature AlN Grown by Plasma-Assisted Molecular Beam Epitaxy. Japanese Journal of Applied Physics, 1998, 37, L313-L315.	1.5	10
182	Coherent x-ray diffraction imaging of grown-in antiphase boundaries in $\text{Fe}_{65}\text{Al}_{35}$. Physical Review B, 2007, 76, .	3.2	10
183	Coherent x-ray diffraction imaging of ZnO nanostructures under confined illumination. New Journal of Physics, 2011, 13, 033006.	2.9	10
184	Coherent diffractive imaging of solid state reactions in zinc oxide crystals. New Journal of Physics, 2011, 13, 113009.	2.9	10
185	Radiation-induced bending of silicon-on-insulator nanowires probed by coherent x-ray diffractive imaging. New Journal of Physics, 2012, 14, 063029.	2.9	10
186	Scanning electron microscope studies of human metaphase chromosomes. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20130144.	3.4	10
187	Novel silica stabilization method for the analysis of fine nanocrystals using coherent X-ray diffraction imaging. Journal of Synchrotron Radiation, 2016, 23, 953-958.	2.4	10
188	X-ray ptychography using randomized zone plates. Optics Express, 2018, 26, 14915.	3.4	10
189	Domain Texture of the Orthorhombic Phase of $\text{La}_{2-x}\text{Ba}_x\text{CuO}_4$. Journal of Superconductivity and Novel Magnetism, 2020, 33, 99-106.	1.8	10
190	Radiation-driven rotational motion of nanoparticles. Journal of Synchrotron Radiation, 2018, 25, 757-762.	2.4	10
191	First testing of the fast kappa diffractometers at National Synchrotron Light Source and European Synchrotron Radiation Facility. Review of Scientific Instruments, 1995, 66, 1765-1767.	1.3	9
192	Local strain relaxation in $\text{Si}_{0.7}\text{Ge}_{0.3}$ on Si(001) induced by Ga ⁺ irradiation. Journal of Applied Physics, 1998, 83, 7608-7612.	2.5	9
193	Zn-triggered critical behavior of the formation of highly coherent domains in $\text{aMg}_{1-x}\text{Zn}_x\text{O}$ thin film on Al_2O_3 . Physical Review B, 2002, 66, .	3.2	9
194	Precrystallization clusters of holoferritin and apoferritin at low temperature. Physical Review E, 2007, 75, 021913.	2.1	9
195	Mechanical breakdown of bent silicon nanowires imaged by coherent x-ray diffraction. New Journal of Physics, 2013, 15, 123007.	2.9	9
196	Three-dimensional analysis of the spatial distribution of iron oxide particles in a decorative coating by electron microscopic imaging. Progress in Organic Coatings, 2014, 77, 1069-1072.	3.9	9
197	Edge illumination X-ray phase-contrast imaging: nanoradian sensitivity at synchrotrons and translation to conventional sources. Journal of Physics: Conference Series, 2014, 499, 012006.	0.4	9
198	Procedures for cryogenic X-ray ptychographic imaging of biological samples. IUCr, 2017, 4, 147-151.	2.2	9

#	ARTICLE	IF	CITATIONS
199	Three-Dimensional Characterization of Hardened Paste of Hydrated Tricalcium Silicate by Serial Block-Face Scanning Electron Microscopy. <i>Materials</i> , 2019, 12, 1882.	2.9	9
200	Use of 3D imaging for providing insights into high-order structure of mitotic chromosomes. <i>Chromosoma</i> , 2019, 128, 7-13.	2.2	9
201	Charge Condensation and Lattice Coupling Drives Stripe Formation in Nickelates. <i>Physical Review Letters</i> , 2021, 126, 177601.	7.8	9
202	Nuclear incorporation of iron during the eukaryotic cell cycle. <i>Journal of Synchrotron Radiation</i> , 2016, 23, 1490-1497.	2.4	9
203	Robinson, Vlieg, and Kern reply. <i>Physical Review Letters</i> , 1990, 65, 1831-1831.	7.8	8
204	Super-Resolution Microscopy Reveals Shape and Distribution of Dislocations in Single-Crystal Nanocomposites. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 17328-17334.	13.8	8
205	A hard x-ray KB-FZP microscope for tomography with sub-100-nm resolution. , 2006, , .		7
206	Sensitivity of edge illumination X-ray phase-contrast imaging. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2014, 372, 20130128.	3.4	7
207	Towards single particle imaging of human chromosomes at SACLA. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2015, 48, 244007.	1.5	7
208	3D microstructure reconstruction of casting aluminum alloy based on serial block-face scanning electron microscopy. <i>Journal of Alloys and Compounds</i> , 2019, 778, 721-730.	5.5	7
209	Phase-contrast 3D tomography of HeLa cells grown in PLLA polymer electrospun scaffolds using synchrotron X-rays. <i>Journal of Synchrotron Radiation</i> , 2020, 27, 158-163.	2.4	7
210	Resolving 500 nm axial separation by multi-slice X-ray ptychography. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2019, 75, 336-341.	0.1	7
211	Optimisation of coherent X-ray diffraction imaging at ultrabright synchrotron sources. <i>Zeitschrift für Kristallographie, Supplement</i> , 2008, 2008, 27-35.	0.5	7
212	Resonant scattering in delta-doped heterostructures. <i>Applied Physics Letters</i> , 2001, 79, 2913-2915.	3.3	6
213	Bonsu: the interactive phase retrieval suite. <i>Journal of Applied Crystallography</i> , 2012, 45, 840-843.	4.5	6
214	Probe-diverse ptychography. <i>Ultramicroscopy</i> , 2016, 171, 77-81.	1.9	6
215	Nucleation of fractal nanocrystallites upon annealing of Fe-based metallic glass. <i>Journal of Materials Research</i> , 2017, 32, 1880-1887.	2.6	6
216	Investigation of Three-Dimensional Microstructure of Tricalcium Silicate (C3S) by Electron Microscopy. <i>Materials</i> , 2018, 11, 1110.	2.9	6

#	ARTICLE	IF	CITATIONS
217	Complete Strain Mapping of Nanosheets of Tantalum Disulfide. ACS Applied Materials & Interfaces, 2020, 12, 43173-43179.	8.0	6
218	Scaling behavior of low-temperature orthorhombic domains in the prototypical high-temperature superconductor $\text{La}_{1.875}\text{Ba}_{0.125}\text{CuO}_4$. Physical Review B, 2020, 101, .	3.2	6
219	Concurrent probing of electron-lattice dephasing induced by photoexcitation in TaSeTe using ultrafast electron diffraction. Physical Review B, 2020, 101, .	1.2	6
220	Photoinduced anisotropic lattice dynamic response and domain formation in thermoelectric SnSe. Npj Quantum Materials, 2021, 6, .	5.2	6
221	Structure and roughening of the Pt(110) surface. Faraday Discussions of the Chemical Society, 1990, 89, 159.	2.2	5
222	Healing kinetics of a sputter-roughened surface. Surface Science, 1992, 261, 118-122.	1.9	5
223	<title>Optical detection of the superconducting proximity effect</title>. , 1996, , .		5
224	Collagen imaged by Coherent X-ray Diffraction: towards a complementary tool to conventional scanning SAXS. Journal of Physics: Conference Series, 2010, 247, 012004.	0.4	5
225	Quantitative two-dimensional strain mapping of small core-shell $\text{FePt}@_{\text{Fe}}\text{O}_3$ nanoparticles. New Journal of Physics, 2016, 18, 033016.	2.9	5
226	Phase modulation due to crystal diffraction by ptychographic imaging. Physical Review B, 2018, 97, .	3.2	5
227	Multi-Modal Ptychography: Recent Developments and Applications. Applied Sciences (Switzerland), 2018, 8, 1054.	2.5	5
228	Cryo-nanoscale chromosome imaging—future prospects. Biophysical Reviews, 2020, 12, 1257-1263.	3.2	5
229	Investigation of spatial nano-structure development of the hardened C3S pastes by serial block-face SEM. Materials Characterization, 2021, 174, 110973.	4.4	5
230	Ultra-Structural Imaging Provides 3D Organization of 46 Chromosomes of a Human Lymphocyte Prophase Nucleus. International Journal of Molecular Sciences, 2021, 22, 5987.	4.1	5
231	Imperfection and radiation damage in protein crystals studied with coherent radiation. Journal of Synchrotron Radiation, 2016, 23, 228-237.	2.4	5
232	Surface X-ray diffraction on clean and Cs-covered Ag(001). Zeitschrift Fur Kristallographie - Crystalline Materials, 1997, 212, 327-333.	0.8	5
233	Optical design and simulation of a new coherence beamline at NSLS-II. , 2017, , .		5
234	Diffuse X-Ray Scattering Study of Defects Created by KeV Ion Implants In Si. Materials Research Society Symposia Proceedings, 1996, 439, 89.	0.1	4

#	ARTICLE	IF	CITATIONS
235	One-step synthesis of monodisperse water-soluble Fe^{2+} -dual-responsive TM magnetic nanoparticles. <i>Chemical Communications</i> , 2007, , 4602-4.	4.1	4
236	Coherent x-ray diffraction imaging of paint pigment particles by scanning a phase plate modulator. <i>New Journal of Physics</i> , 2011, 13, 103022.	2.9	4
237	Improved sensitivity at synchrotrons using edge illumination X-ray phase-contrast imaging. <i>Journal of Instrumentation</i> , 2013, 8, C06002-C06002.	1.2	4
238	Three-dimensional Imaging of Crystalline Inclusions Embedded in Intact Maize Stalks. <i>Scientific Reports</i> , 2013, 3, 2843.	3.3	4
239	Platinum blue staining of cells grown in electrospun scaffolds. <i>BioTechniques</i> , 2014, 57, 137-41.	1.8	4
240	Three-dimensional imaging and analysis of the internal structure of SAPO-34 zeolite crystals. <i>RSC Advances</i> , 2018, 8, 33631-33636.	3.6	4
241	In-situ investigation of crystallization and structural evolution of a metallic glass in three dimensions at nano-scale. <i>Materials and Design</i> , 2020, 190, 108551.	7.0	4
242	Structure of a seeded palladium nanoparticle and its dynamics during the hydride phase transformation. <i>Communications Chemistry</i> , 2021, 4, .	4.5	4
243	Structural inhomogeneity in silicon-on-insulator probed with coherent X-ray diffraction. <i>Zeitschrift für Kristallographie</i> , 2010, 225, .	1.1	4
244	3D Ultrastructural Imaging of Chromosomes Using Serial Block-Face Scanning Electron Microscopy (SBFSEM). <i>Dna</i> , 2022, 2, 30-43.	1.3	4
245	Metastable vs. unstable growth in the subsurface ordering dynamics of Cu ₃ Au (001). <i>Europhysics Letters</i> , 2001, 53, 570-576.	2.0	3
246	Defect formation in Si(111)7 \times 7 surfaces due to 200 eV Ar ⁺ ion bombardment. <i>Physical Review B</i> , 2003, 68, .	3.2	3
247	The evolution of hard x-ray tomography from the micrometer to the nanometer length scale. , 2004, , .		3
248	Corrections to ZnO Nanostructures and High Electron Mobility Nanocomposite Thin Film Transistors [Nov 08 3001-3011]. <i>IEEE Transactions on Electron Devices</i> , 2009, 56, 156-156.	3.0	3
249	Reaching the third dimension. <i>Nature Materials</i> , 2017, 16, 160-161.	27.5	3
250	Bragg projection ptychography on niobium phase domains. <i>Physical Review B</i> , 2017, 96, .	3.2	3
251	Investigation of Three-Dimensional Structure and Pigment Surrounding Environment of a TiO ₂ Containing Waterborne Paint. <i>Materials</i> , 2019, 12, 464.	2.9	3
252	Strain and Electronic Nematicity in La _{2-x} Sr _x CuO ₄ . <i>Journal of Superconductivity and Novel Magnetism</i> , 2020, 33, 93-98.	1.8	3

#	ARTICLE	IF	CITATIONS
253	Real Space Imaging of Spin Stripe Domain Fluctuations in a Complex Oxide. Physical Review Letters, 2021, 127, 275301.	7.8	3
254	Surface Structural Techniques Applied to Interfaces. MRS Bulletin, 1990, 15, 38-41.	3.5	2
255	Extrapolation of critical thickness of GaN thin films from lattice constant data using synchrotron X-ray. Materials Research Society Symposia Proceedings, 1996, 423, 557.	0.1	2
256	Beam splitting mirror for advanced photon source sector 34. AIP Conference Proceedings, 2000, , .	0.4	2
257	Substrate morphology repetition in ϵ -polymer films. Physica B: Condensed Matter, 2005, 357, 136-140.	2.7	2
258	Grazing exit small angle X-ray scattering on grain formation in polycrystalline metal films. Zeitschrift Fur Kristallographie - Crystalline Materials, 2007, 222, 601-604.	0.8	2
259	RECENT DEVELOPMENT FOR SYNTHESIS OF MAGNETIC NANOPARTICLES FOR BIOMEDICAL APPLICATIONS. International Journal of Nanoscience, 2011, 10, 883-890.	0.7	2
260	Angle-Resolved Transport Measurements Reveal Electronic Nematicity in Cuprate Superconductors. Journal of Superconductivity and Novel Magnetism, 2020, 33, 87-92.	1.8	2
261	Contribution of advanced fluorescence nano microscopy towards revealing mitotic chromosome structure. Chromosome Research, 2021, 29, 19-36.	2.2	2
262	Quantitative phase measurements of human cell nuclei using X-ray ptychography. Journal of Synchrotron Radiation, 2021, 28, 1166-1173.	2.4	2
263	Extending the depth of field for ptychography using complex-valued wavelets. Optics Letters, 2019, 44, 503.	3.3	2
264	Real-space observation of fluctuating antiferromagnetic domains. Science Advances, 2022, 8, .	10.3	2
265	Diffuse X-Ray Scattering Study of Defects Created by keV Ion Implants in Si. Materials Research Society Symposia Proceedings, 1996, 438, 77.	0.1	1
266	<title>Phase retrieval in coherent diffraction from Cu$_3$Au antiphase domains</title>. , 1999, 3815, 199.		1
267	Development of a Double Crystal Monochromator. AIP Conference Proceedings, 2004, , .	0.4	1
268	<title>Convergence of phase inversion for simple crystal shapes using coherent x-ray diffraction</title>. , 2004, , .		1
269	Imaging matter in different spaces. Physics Magazine, 2011, 4, .	0.1	1
270	Laboratory-based edge-illumination phase-contrast imaging: Dark-field retrieval and high-resolution implementations. , 2014, , .		1

#	ARTICLE	IF	CITATIONS
271	Coherent three-dimensional X-ray cryo-imaging. IUCrj, 2015, 2, 477-478.	2.2	1
272	High-Resolution and High-Throughput Ptychography with Depth Sensitivity Using Multilayer Laue Lenses. Microscopy and Microanalysis, 2018, 24, 30-31.	0.4	1
273	Unusual Breathing Behavior of Optically Excited Barium Titanate Nanocrystals. Crystals, 2020, 10, 365.	2.2	1
274	Combining Multicolor FISH with Fluorescence Lifetime Imaging for Chromosomal Identification and Chromosomal Sub Structure Investigation. Frontiers in Molecular Biosciences, 2021, 8, 631774.	3.5	1
275	X-Ray Diffraction From Surfaces and Interfaces: Atomic Structure and Morphology. Materials Research Society Symposia Proceedings, 1990, 202, 291.	0.1	0
276	Schuster and Robinson Reply.. Physical Review Letters, 1997, 78, 159-159.	7.8	0
277	Workshop on in-situ surface manipulation. Synchrotron Radiation News, 1998, 11, 6-6.	0.8	0
278	Resonant X-ray diffraction search for non-stoichiometric chemically ordered domains in PMN. AIP Conference Proceedings, 2000, , .	0.4	0
279	Observation of interference effects in coherent diffraction of nanocrystals under X-ray standing-wave illumination. Journal of Synchrotron Radiation, 2007, 14, 471-476.	2.4	0
280	New Chemical Methods for Synthesis of Magnetic Nanoparticles for Biomedical Applications. , 2010, , .		0
281	Coherent X-ray Diffraction Imaging for Strain Analysis on Single ZnO Nanorod. , 2011, , .		0
282	Imaging nanoparticles using coherent diffraction. Acta Crystallographica Section A: Foundations and Advances, 2013, 69, s7-s7.	0.3	0
283	Imaging Lattice dynamics in individual nanocrystals. , 2014, , .		0
284	Steve Wilkins 1946â€“2013. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20130393.	3.4	0
285	Lensless Imaging of Nano- and Meso-Scale Dynamics with X-rays. Microscopy and Microanalysis, 2015, 21, 2165-2166.	0.4	0
286	My life and the world of crystals. Physica Scripta, 2015, 90, 048003.	2.5	0
287	Coherence 2018. Synchrotron Radiation News, 2018, 31, 39-40.	0.8	0
288	Super-Resolution Microscopy Reveals Shape and Distribution of Dislocations in Single-Crystal Nanocomposites. Angewandte Chemie, 2019, 131, 17489-17495.	2.0	0

#	ARTICLE	IF	CITATIONS
289	A Multimodal Label-Free Imaging Study of Zeolite Crystals. , 2021, , .		0
290	Crystallography beyond crystals. Zeitschrift Fur Kristallographie - Crystalline Materials, 2002, 217, 360-361.	0.8	0
291	STEPPED SILICON TEMPLATES FOR QUANTUM WIRE STRUCTURES. , 2003, , .		0
292	Imaging of Domain Structures by Coherent X-Ray Diffraction. , 2009, , .		0
293	Coherent X-ray diffraction imaging of antiphase domains and biological tissues with ptychography. Acta Crystallographica Section A: Foundations and Advances, 2009, 65, s66-s67.	0.3	0
294	Three-dimensional imaging of acoustic phonons using an X-ray laser. Acta Crystallographica Section A: Foundations and Advances, 2014, 70, C288-C288.	0.1	0
295	Introducing the holo-TIE approach to cellular imaging. Acta Crystallographica Section A: Foundations and Advances, 2017, 73, 281-281.	0.1	0