

# Anatoly Snigirev

## List of Publications by Year in descending order

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137  
papers

8,295  
citations

61687

45  
h-index

53065

89  
g-index

138  
all docs

138  
docs citations

138  
times ranked

5284  
citing authors

#	ARTICLE	IF	CITATIONS
1	Using diffraction losses of X-rays in a single crystal for determination of its lattice parameters as well as for monochromator calibration. <i>Journal of Synchrotron Radiation</i> , 2022, 29, 369-376.	1.0	2
2	X-ray reflectivity from curved surfaces as illustrated by a graphene layer on molten copper. <i>Journal of Synchrotron Radiation</i> , 2022, 29, 711-720.	1.0	8
3	Deformation field mapping of the X-ray silicon Fresnel Zone Plate. <i>Procedia Structural Integrity</i> , 2022, 40, 40-45.	0.3	0
4	Towards high-quality nitrogen-doped diamond single crystals for X-ray optics. <i>Journal of Synchrotron Radiation</i> , 2021, 28, 104-110.	1.0	5
5	Determination of the Exact Orientation of Single-Crystal X-ray Optics from Its Glitch Spectrum and Modeling of Glitches for an Arbitrary Configuration. <i>Crystals</i> , 2021, 11, 504.	1.0	5
6	Coherent X-ray beam expander based on a multilens interferometer. <i>Optics Express</i> , 2021, 29, 35038.	1.7	5
7	Diamond X-Ray Refractive Optics. <i>Synchrotron Radiation News</i> , 2021, 34, 12-20.	0.2	5
8	Suppressing Diffraction-Related Intensity Losses in Transmissive Single-Crystal X-ray Optics. <i>Crystals</i> , 2021, 11, 1561.	1.0	3
9	Impact of beryllium microstructure on the imaging and optical properties of X-ray refractive lenses. <i>Journal of Synchrotron Radiation</i> , 2020, 27, 44-50.	1.0	7
10	Predicting glitches of intensity in single-crystal diamond CRLs. <i>AIP Conference Proceedings</i> , 2020, , .	0.3	4
11	Diamond refractive micro-lenses for full-field X-ray imaging and microscopy produced with ion beam lithography. <i>Optics Express</i> , 2020, 28, 4773.	1.7	17
12	X-ray phase-sensitive imaging using a bilens interferometer based on refractive optics. <i>Optics Express</i> , 2020, 28, 21856.	1.7	14
13	Hard X-ray in-situ full-field microscopy for material science applications. , 2020, , .		0
14	Diamond micro-CRL for Coherent x-ray imaging and microscopy. <i>AIP Conference Proceedings</i> , 2020, , .	0.3	0
15	Non-steady 3D dendrite tip growth under diffusive and weakly convective conditions. <i>Materialia</i> , 2019, 5, 100215.	1.3	10
16	High-resolution SAXS setup with tuneable resolution in direct and reciprocal space: a new tool to study ordered nanostructures. <i>Journal of Applied Crystallography</i> , 2019, 52, 1095-1103.	1.9	6
17	Laser heating setup for diamond anvil cells for <i>in situ</i> synchrotron and in house high and ultra-high pressure studies. <i>Review of Scientific Instruments</i> , 2019, 90, .	0.6	50
18	Optical performance and radiation stability of polymer X-ray refractive nano-lenses. <i>Journal of Synchrotron Radiation</i> , 2019, 26, 714-719.	1.0	12

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19	Investigation of glitches induced by single-crystal diamond compound refractive lenses based on crystal orientation. AIP Conference Proceedings, 2019, , .	0.3	3
20	Investigation of 'glitches' in the energy spectrum induced by single-crystal diamond compound X-ray refractive lenses. Journal of Synchrotron Radiation, 2019, 26, 109-118.	1.0	7
21	CRL-based ultra-compact transfocator for X-ray focusing and microscopy. Journal of Synchrotron Radiation, 2019, 26, 1208-1212.	1.0	15
22	X-ray reflecto-interferometer based on compound refractive lenses. Journal of Synchrotron Radiation, 2019, 26, 1572-1581.	1.0	8
23	Visualization of protein crystals by high-energy phase-contrast X-ray imaging. Acta Crystallographica Section D: Structural Biology, 2019, 75, 947-958.	1.1	16
24	10.1063/1.5117786.1. , 2019, , .		0
25	Analytical transmission cross-coefficients for pink beam X-ray microscopy based on compound refractive lenses. Ultramicroscopy, 2018, 184, 1-7.	0.8	1
26	Zernike phase contrast in high-energy x-ray transmission microscopy based on refractive optics. Ultramicroscopy, 2018, 184, 267-273.	0.8	35
27	Spectral X-ray Glitches in Monocrystalline Diamond Refractive Lenses. Physica Status Solidi (B): Basic Research, 2018, 255, 1700229.	0.7	12
28	X-ray Microscopy Opportunities at ID 15B Beamline at the ESRF.. Microscopy and Microanalysis, 2018, 24, 238-239.	0.2	4
29	Mini-Transfocator for X-ray Focusing and Microscopy. Microscopy and Microanalysis, 2018, 24, 294-295.	0.2	3
30	Hard X-ray In-situ Full-field Microscopy for Material Science Applications.. Microscopy and Microanalysis, 2018, 24, 552-553.	0.2	5
31	Linear parabolic single-crystal diamond refractive lenses for synchrotron X-ray sources. Journal of Synchrotron Radiation, 2017, 24, 103-109.	1.0	34
32	Materials for x-ray refractive lenses minimizing wavefront distortions. MRS Bulletin, 2017, 42, 430-436.	1.7	22
33	Protective radiolucent aluminium oxide coatings for Beryllium X-ray optics. Journal of Synchrotron Radiation, 2017, 24, 775-780.	1.0	4
34	Polymer X-ray refractive nano-lenses fabricated by additive technology. Optics Express, 2017, 25, 14173.	1.7	29
35	X-ray refractive parabolic axicon lens. Optics Express, 2017, 25, 28469.	1.7	24
36	Correcting lateral chromatic aberrations in non-monochromatic X-ray microscopy. Applied Physics Letters, 2016, 109, 054103.	1.5	13

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37	Diamond X-ray Refractive Lenses with High Acceptance. <i>Physics Procedia</i> , 2016, 84, 213-220.	1.2	26
38	Optical performance of materials for X-ray refractive optics in the energy range 8â€“100â€“keV. <i>Journal of Synchrotron Radiation</i> , 2016, 23, 1315-1322.	1.0	15
39	High pressure XANES and XMCD in the tender X-ray energy range. <i>High Pressure Research</i> , 2016, 36, 445-457.	0.4	20
40	30-Lens interferometer for high-energy X-rays. <i>Journal of Synchrotron Radiation</i> , 2016, 23, 1104-1109.	1.0	19
41	Lens coupled tunable Youngâ€™s double pinhole system for hard X-ray spatial coherence characterization. <i>Optics Express</i> , 2016, 24, 13679.	1.7	23
42	Diamond x-ray refractive lenses produced by femto-second laser ablation. <i>Proceedings of SPIE</i> , 2016, , .	0.8	5
43	Terapascal static pressure generation with ultrahigh yield strength nanodiamond. <i>Science Advances</i> , 2016, 2, e1600341.	4.7	161
44	Parabolic single-crystal diamond lenses for coherent x-ray imaging. <i>Applied Physics Letters</i> , 2015, 107, .	1.5	51
45	Large-acceptance diamond planar refractive lenses manufactured by laser cutting. <i>Journal of Synchrotron Radiation</i> , 2015, 22, 23-28.	1.0	40
46	Dark-field X-ray microscopy for multiscale structural characterization. <i>Nature Communications</i> , 2015, 6, 6098.	5.8	167
47	Highly porous nanoberyllium for X-ray beam speckle suppression. <i>Journal of Synchrotron Radiation</i> , 2015, 22, 796-800.	1.0	10
48	Hard x-ray single crystal bi-mirror. <i>Optics Letters</i> , 2015, 40, 2205.	1.7	10
49	X-ray diffraction microscopy based on refractive optics. <i>Optics Communications</i> , 2015, 340, 33-38.	1.0	12
50	Propagation of an X-ray beam modified by a photonic crystal. <i>Journal of Synchrotron Radiation</i> , 2014, 21, 729-735.	1.0	6
51	X-ray multilens interferometer based on Si refractive lenses. <i>Optics Express</i> , 2014, 22, 25842.	1.7	37
52	X-ray harmonics rejection on third-generation synchrotron sources using compound refractive lenses. <i>Journal of Synchrotron Radiation</i> , 2014, 21, 484-487.	1.0	30
53	Retrieval of three-dimensional spatial information from fast in situ two-dimensional synchrotron radiography of solidification microstructure evolution. <i>Acta Materialia</i> , 2014, 81, 241-247.	3.8	49
54	Self-assembly of colloidal hematite cubes: a microradian X-ray diffraction exploration of sedimentary crystals. <i>Soft Matter</i> , 2013, 9, 10729.	1.2	55

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55	In situ hard X-ray microscopy of self-assembly in colloidal suspensions. RSC Advances, 2013, 3, 15670.	1.7	38
56	Fourier crystal diffractometry based on refractive optics. Journal of Applied Crystallography, 2013, 46, 1475-1480.	1.9	25
57	Efficient focusing of 8 keV X-rays with multilayer Fresnel zone plates fabricated by atomic layer deposition and focused ion beam milling. Journal of Synchrotron Radiation, 2013, 20, 433-440.	1.0	24
58	The Upgrade Programme for the Structural Biology beamlines at the European Synchrotron Radiation Facility – High throughput sample evaluation and automation. Journal of Physics: Conference Series, 2013, 425, 012001.	0.3	35
59	Self-Assembly of Colloidal Cubes via Vertical Deposition. Langmuir, 2012, 28, 7631-7638.	1.6	125
60	Studying properties of polymer X-ray lenses. Technical Physics Letters, 2012, 38, 251-253.	0.2	4
61	High-Energy Nanoscale-Resolution X-ray Microscopy Based on Refractive Optics on a Long Beamline. AIP Conference Proceedings, 2011, , .	0.3	13
62	X-ray transfocators: focusing devices based on compound refractive lenses. Journal of Synchrotron Radiation, 2011, 18, 125-133.	1.0	147
63	X-Ray Video Microscopy Studies of Irregular Eutectic Solidification Microstructures in Al–Si–Cu Alloys. ISIJ International, 2010, 50, 1936-1940.	0.6	2
64	High-Resolution Transmission X-ray Microscopy: A New Tool for Mesoscopic Materials. Advanced Materials, 2010, 22, 3256-3259.	11.1	88
65	Revealing stacking sequences in inverse opals by microradian X-ray diffraction. Europhysics Letters, 2010, 89, 14002.	0.7	13
66	Experimental Observation of Fractionated Crystallization in Polydisperse Plate-like Colloids. Langmuir, 2010, 26, 6898-6901.	1.6	20
67	X-ray Optics at the ESRF. Synchrotron Radiation News, 2010, 23, 36-42.	0.2	6
68	Diffuse scattering in random-stacking hexagonal close-packed crystals of colloidal hard spheres. Phase Transitions, 2010, 83, 107-114.	0.6	19
69	Behavior of the smectic A phase of colloidal goethite in a magnetic field. Soft Matter, 2010, 6, 4895.	1.2	9
70	High energy X-ray transfocator based on Al parabolic refractive lenses for focusing and collimation. Journal of Physics: Conference Series, 2009, 186, 012073.	0.3	51
71	Spatial structure of a focused X-ray beam diffracted from crystals. Journal of Synchrotron Radiation, 2009, 16, 666-671.	1.0	2
72	Double Stacking Faults in Convectively Assembled Crystals of Colloidal Spheres. Langmuir, 2009, 25, 10408-10412.	1.6	54

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73	Colloidal silver nanoparticle gradient layer prepared by drying between two walls of different wettability. <i>Journal of Physics Condensed Matter</i> , 2009, 21, 264012.	0.7	8
74	High energy X-ray micro-optics. <i>Comptes Rendus Physique</i> , 2008, 9, 507-516.	0.3	62
75	Grain to grain slip activity in plastically deformed Zr determined by X-ray micro-diffraction line profile analysis. <i>Acta Materialia</i> , 2007, 55, 1117-1127.	3.8	81
76	Submicrometer hard X-ray focusing using a single-bounce ellipsoidal capillary combined with a Fresnel zone plate. <i>Journal of Synchrotron Radiation</i> , 2007, 14, 227-228.	1.0	15
77	Two-step hard X-ray focusing combining Fresnel zone plate and single-bounce ellipsoidal capillary. <i>Journal of Synchrotron Radiation</i> , 2007, 14, 326-330.	1.0	24
78	X-Ray microanalytical techniques based on synchrotron radiation. <i>Journal of Environmental Monitoring</i> , 2006, 8, 33-42.	2.1	54
79	Microradian X-ray diffraction in colloidal photonic crystals. <i>Journal of Applied Crystallography</i> , 2006, 39, 137-144.	1.9	94
80	X-ray high-resolution diffraction using refractive lenses. <i>Applied Physics Letters</i> , 2005, 86, 014102.	1.5	40
81	LIGA fabrication of X-ray Nickel lenses. <i>Microsystem Technologies</i> , 2005, 11, 292-297.	1.2	46
82	Microfluidics of soft matter investigated by small-angle X-ray scattering. <i>Journal of Synchrotron Radiation</i> , 2005, 12, 745-750.	1.0	61
83	Refractive x-ray lenses. <i>Journal Physics D: Applied Physics</i> , 2005, 38, A218-A222.	1.3	109
84	Interfacial Melting of Ice in Contact with SiO <sub>2</sub> . <i>Physical Review Letters</i> , 2004, 92, 205701.	2.9	183
85	High-Resolution 3D Imaging Microscopy Using Hard X-Rays. <i>MRS Bulletin</i> , 2004, 29, 157-165.	1.7	30
86	Phase-contrast microtomography of thin biomaterials. <i>Journal of Materials Science: Materials in Medicine</i> , 2004, 15, 1053-1057.	1.7	8
87	Fabrication and preliminary testing of X-ray lenses in thick SU-8 resist layers. <i>Microsystem Technologies</i> , 2004, 10, 716-721.	1.2	47
88	Diffraction theory of imaging with X-ray compound refractive lens. <i>Optics Communications</i> , 2003, 216, 247-260.	1.0	67
89	A new X-ray transmission-reflection scheme for the study of deeply buried interfaces using high-energy microbeams. <i>Physica B: Condensed Matter</i> , 2003, 336, 46-55.	1.3	75
90	Nanofocusing parabolic refractive x-ray lenses. <i>Applied Physics Letters</i> , 2003, 82, 1485-1487.	1.5	178

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91	X-ray tomographic imaging of the complex refractive index. <i>Applied Physics Letters</i> , 2003, 83, 1480-1482.	1.5	34
92	GaN polarity domains spatially resolved by x-ray standing wave microscopy. <i>Journal Physics D: Applied Physics</i> , 2003, 36, A214-A216.	1.3	17
93	High resolution imaging and lithography with hard x rays using parabolic compound refractive lenses. <i>Review of Scientific Instruments</i> , 2002, 73, 1640-1642.	0.6	36
94	X-ray standing wave microscopy: Chemical microanalysis with atomic resolution. <i>Applied Physics Letters</i> , 2002, 81, 2279-2281.	1.5	36
95	Nanotomography based on hard x-ray microscopy with refractive lenses. <i>Applied Physics Letters</i> , 2002, 81, 1527-1529.	1.5	63
96	Quantitative analysis of two-component samples using in-line hard X-ray images. <i>Journal of Synchrotron Radiation</i> , 2002, 9, 148-153.	1.0	55
97	Reconstruction of an object phase transmission function from in-line X-ray holograms. <i>Optics Communications</i> , 2002, 213, 247-258.	1.0	8
98	Microscopic imaging with high energy x-rays by Fourier transform holography. <i>Journal of Applied Physics</i> , 2001, 90, 538-544.	1.1	35
99	Mapping trace-metal (Cu, Zn, As) distribution in a single fluid inclusion using a third generation synchrotron light source. <i>Chemical Geology</i> , 2001, 173, 151-158.	1.4	27
100	Parabolic refractive X-ray lenses: a breakthrough in X-ray optics. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2001, 467-468, 944-950.	0.7	42
101	Interferometric measurements with hard X-rays using a double slit. <i>Optics Communications</i> , 2001, 191, 91-96.	1.0	62
102	Interferometric characterization of spatial coherence of high energy synchrotron X-rays. <i>Optics Communications</i> , 2001, 198, 293-309.	1.0	50
103	The Use of Small-Angle X-Ray Diffraction Studies for the Analysis of Structural Features in Archaeological Samples. <i>Archaeometry</i> , 2001, 43, 117-129.	0.6	64
104	Synchrotron hard x-ray microprobe: Fluorescence imaging of single cells. <i>Applied Physics Letters</i> , 2001, 78, 3544-3546.	1.5	85
105	Theory of Imaging a Perfect Crystal under the Conditions of X-Ray Spherical Wave Dynamical Diffraction. <i>Physica Status Solidi (B): Basic Research</i> , 2000, 222, 407-423.	0.7	22
106	X-ray diffraction on Si single crystal with a W-shaped longitudinal groove. <i>Journal of Synchrotron Radiation</i> , 2000, 7, 382-385.	1.0	1
107	Microscopic imaging and holography with hard X-rays using Fresnel zone-plates. <i>Optics Communications</i> , 2000, 180, 233-238.	1.0	28
108	Determination of local strains in a monocrystalline turbine blade by microbeam X-ray diffraction with synchrotron radiation. <i>Acta Materialia</i> , 2000, 48, 2221-2230.	3.8	22

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109	X-ray imaging of uranium in individual fluid inclusions. Terra Nova, 2000, 12, 84-89.	0.9	19
110	X-ray refractive planar lens with minimized absorption. Applied Physics Letters, 2000, 77, 4058-4060.	1.5	163
111	High-energy-resolution x-ray optics with refractive collimators. Applied Physics Letters, 2000, 77, 31-33.	1.5	51
112	Direct Measurement of Transverse Coherence Length of Hard X Rays from Interference Fringes. Physical Review Letters, 2000, 85, 2745-2748.	2.9	124
113	High-resolution X-ray fluorescence microtomography of homogeneous samples. IEEE Transactions on Nuclear Science, 2000, 47, 2736-2740.	1.2	66
114	Quantitative x-ray Bragg diffraction topography of periodically domain-inverted LiNbO <sub>3</sub> . Journal Physics D: Applied Physics, 1999, 32, A160-A165.	1.3	14
115	Asymmetrically cut crystals as optical elements for coherent x-ray beam conditioning. Journal Physics D: Applied Physics, 1999, 32, A184-A192.	1.3	19
116	Time Resolved X-Ray Imaging of Dendritic Growth in Binary Alloys. Physical Review Letters, 1999, 83, 5062-5065.	2.9	219
117	A microscope for hard x rays based on parabolic compound refractive lenses. Applied Physics Letters, 1999, 74, 3924-3926.	1.5	282
118	Hard x-ray quantitative non-interferometric phase-contrast microscopy. Journal Physics D: Applied Physics, 1999, 32, 563-567.	1.3	128
119	Imaging by parabolic refractive lenses in the hard X-ray range. Journal of Synchrotron Radiation, 1999, 6, 1153-1167.	1.0	342
120	New Features of X-Ray Bragg Diffraction Topography with Coherent Illumination. Physica Status Solidi A, 1999, 172, 3-13.	1.7	6
121	A microscope for hard X-rays based on refractive optics. Synchrotron Radiation News, 1999, 12, 45-45.	0.2	3
122	Phase-mapping of periodically domain-inverted LiNbO <sub>3</sub> with coherent X-rays. Nature, 1998, 392, 690-693.	13.7	97
123	Microscopic X-ray fluorescence analysis and related methods with laboratory and synchrotron radiation sources. Journal of Analytical Atomic Spectrometry, 1998, 13, 319-331.	1.6	85
124	Transmission and gain of singly and doubly focusing refractive x-ray lenses. Journal of Applied Physics, 1998, 84, 5855-5861.	1.1	157
125	Acoustic excitation of the circular Bragg-Fresnel lens in backscattering geometry. Applied Physics Letters, 1997, 70, 829-831.	1.5	25
126	New approach to the cooling of fixed exit double crystal monochromator at the European Synchrotron Radiation Facility. Review of Scientific Instruments, 1997, 68, 2909-2910.	0.6	2

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127	Phase-contrast hard X-ray microtomography by Bragg-Fresnel optics. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1997, 19, 571-576.	0.4	27
128	High energy X-ray phase contrast microscopy using a circular Bragg-Fresnel lens. Optics Communications, 1997, 135, 378-384.	1.0	52
129	A compound refractive lens for focusing high-energy X-rays. Nature, 1996, 384, 49-51.	13.7	1,016
130	Phase-contrast microtomography with coherent high-energy synchrotron x rays. Applied Physics Letters, 1996, 69, 1826-1828.	1.5	157
131	Ion implanted Bragg-Fresnel lens. Review of Scientific Instruments, 1996, 67, 1733-1736.	0.6	30
132	Testing of submicrometer fluorescence microprobe based on Bragg-Fresnel crystal optics at the ESRF. Review of Scientific Instruments, 1995, 66, 1461-1463.	0.6	44
133	Emission monitors based on Bragg-Fresnel lenses. Review of Scientific Instruments, 1995, 66, 1978-1980.	0.6	7
134	Micro-focus double-crystal X-ray diffractometry on III-V heterostructures grown by selective-area epitaxy. Journal Physics D: Applied Physics, 1995, 28, A200-A205.	1.3	14
135	The recent development of Bragg-Fresnel crystal optics. Experiments and applications at the ESRF (invited). Review of Scientific Instruments, 1995, 66, 2053-2058.	0.6	92
136	On the possibilities of x-ray phase contrast microimaging by coherent high-energy synchrotron radiation. Review of Scientific Instruments, 1995, 66, 5486-5492.	0.6	1,374
137	X-ray diagnostics of 2D strain profiles in semiconductor crystals. Semiconductor Science and Technology, 1992, 7, A168-A170.	1.0	6