Nikolay Chkhalo

List of Publications by Year
in descending order

166	1,583	331259	454577
papers	citations	21 h-index	30 g-index

166	166	166	446
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Roughness measurement and ion-beam polishing of super-smooth optical surfaces of fused quartz and optical ceramics. Optics Express, 2014, 22, 20094.	1.7	67
2	Next generation nanolithography based on Ru/Be and Rh/Sr multilayer optics. AIP Advances, 2013, 3, .	0.6	58
3	High performance La/B₄C multilayer mirrors with barrier layers for the next generation lithography. Applied Physics Letters, 2013, 102, 011602.	1.5	54
4	Ion-beam polishing of fused silica substrates for imaging soft x-ray and extreme ultraviolet optics. Applied Optics, 2016, 55, 1249.	2.1	54
5	Advanced materials for multilayer mirrors for extreme ultraviolet solar astronomy. Applied Optics, 2016, 55, 2126.	2.1	54
6	<title>Laboratory methods for investigations of multilayer mirrors in extreme ultraviolet and soft x-ray region</title>. , 2004, , .		40
7	A source of a reference spherical wave based on a single mode optical fiber with a narrowed exit aperture. Review of Scientific Instruments, 2008, 79, 033107.	0.6	40
8	Extended model for the reconstruction of periodic multilayers from extreme ultraviolet and X-ray reflectivity data. Journal of Applied Crystallography, 2017, 50, 1428-1440.	1.9	40
9	Problems in the application of a null lens for precise measurements of aspheric mirrors. Applied Optics, 2016, 55, 619.	2.1	36
10	Current status and development prospects for multilayer X-ray optics at the Institute for Physics of Microstructures, Russian Academy of Sciences. Journal of Surface Investigation, 2017, 11, 1-19.	0.1	36
11	Note: A stand on the basis of atomic force microscope to study substrates for imaging optics. Review of Scientific Instruments, 2015, 86, 016102.	0.6	33
12	Multilayer X-ray mirrors based on La/B4C and La/B9C. Technical Physics, 2010, 55, 1168-1174.	0.2	32
13	Influence of barrier interlayers on the performance of Mo/Be multilayer mirrors for next-generation EUV lithography. Optics Express, 2018, 26, 33718.	1.7	32
14	Free-standing spectral purity filters for extreme ultraviolet lithography. Journal of Micro/ Nanolithography, MEMS, and MOEMS, 2012, 11, 021115-1.	1.0	27
15	Thin film multilayer filters for solar EUV telescopes. Applied Optics, 2016, 55, 4683.	2.1	27
16	Short-period multilayer X-ray mirrors. Journal of Synchrotron Radiation, 2003, 10, 358-360.	1.0	26
17	Properties of laserâ€sputtered Ti/Be multilayers. Review of Scientific Instruments, 1992, 63, 1478-1481.	0.6	25
18	Resolving capacity of the circular Zernike polynomials. Optics Express, 2015, 23, 14677.	1.7	25

#	Article	IF	Citations
19	Observation of extreme ultraviolet light emission from an expanding plasma jet with multiply charged argon or xenon ions. Applied Physics Letters, 2018, 113, .	1.5	25
20	Particulars of studying the roughness of substrates for multilayer X-ray optics using small-angle X-ray reflectometry, atomic-force, and interference microscopy. Bulletin of the Russian Academy of Sciences: Physics, 2011, 75, 67-72.	0.1	24
21	Angle resolved photoelectron spectroscopy as applied to X-ray mirrors: an in depth study of Mo/Si multilayer systems. Physical Chemistry Chemical Physics, 2019, 21, 25002-25010.	1.3	24
22	Conversion efficiency of a laser-plasma source based on a Xe jet in the vicinity of a wavelength of 11 nm. AIP Advances, 2018, 8, .	0.6	23
23	Matrix based algorithm for ion-beam figuring of optical elements. Precision Engineering, 2021, 69, 29-35.	1.8	22
24	Laboratory reflectometer for the investigation of optical elements in a wavelength range of 5 â€“ 50 nm: description and testing results. Quantum Electronics, 2017, 47, 385-392.	0.3	21
25	A stand for a projection EUV nanolithographer-multiplicator with a design resolution of 30 nm. Bulletin of the Russian Academy of Sciences: Physics, 2011, 75, 49-52.	0.1	19
26	Composite Yb:YAG/sapphire thin-disk active elements for high-energy high-average power lasers. Optics Letters, 2020, 45, 387.	1.7	19
27	The evolution of roughness of supersmooth surfaces by ion-beam etching. Bulletin of the Russian Academy of Sciences: Physics, 2012, 76, 163-167.	0.1	18
28	Application of point diffraction interferometry for middle spatial frequency roughness detection. Optics Letters, 2015, 40, 159.	1.7	17
29	Deposition of Mo/Si multilayers onto MEMS micromirrors and its utilization for extreme ultraviolet maskless lithography. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2017, 35, .	0.6	16
30	Study of oxidation processes in Mo/Be multilayers. AIP Advances, 2018, 8, .	0.6	16
31	Quantum Confinement Effect in a Nanoscale Mo/Si Multilayer Structure. Journal of Physical Chemistry C, 2020, 124, 17795-17805.	1.5	15
32	Testing and correction of optical elements with subnanometer precision. Nanotechnologies in Russia, 2008, 3, 602-610.	0.7	14
33	Source for extreme ultraviolet lithography based on plasma sustained by millimeter-wave gyrotron radiation. Journal of Micro/ Nanolithography, MEMS, and MOEMS, 2012, 11, 021123-1.	1.0	14
34	Reflective Schmidtâ€“Cassegrain system for large-aperture telescopes. Applied Optics, 2016, 55, 4430.	2.1	14
35	A double-stream Xe:He jet plasma emission in the vicinity of 6.7â€‰nm. Applied Physics Letters, 2018, 112, .	1.5	13
36	Shortwave projection nanolithography. Herald of the Russian Academy of Sciences, 2008, 78, 279-285.	0.2	12

#	Article	IF	Citations
37	Extreme-ultraviolet source based on the electron-cyclotron-resonance discharge. JETP Letters, 2008, 88, 95-98.	0.4	12
38	Determining angles of incidence and heights of quantum dot faces by analyzing X-ray diffuse and specular scattering. Technical Physics, 2009, 54, 561-568.	0.2	12
39	Evolution of the roughness of amorphous quartz surfaces and Cr/Sc multilayer structures upon exposure to ion-beam etching. Bulletin of the Russian Academy of Sciences: Physics, 2011, 75, 61-63.	0.1	12
40	Diffraction limited X-ray optics: technology, metrology, applications. Physics-Uspekhi, 2020, 63, 67-82.	0.8	12
41	Physical limitations of measurement accuracy of the diffraction reference wave interferometers. Bulletin of the Russian Academy of Sciences: Physics, 2010, 74, 53-56.	0.1	11
42	Device for the precise shape correction of optical surfaces by ion-beam and reactive plasma etching. Journal of Surface Investigation, 2013, 7, 913-915.	0.1	11
43	Analysis of cross-correlation of interface roughness in multilayer structures with ultrashort periods. Journal of Experimental and Theoretical Physics, 2006, 103, 346-353.	0.2	10
44	Multilayer thin-film filters of extreme ultraviolet and soft X-ray spectral regions. Bulletin of the Russian Academy of Sciences: Physics, 2010, 74, 46-49.	0.1	10
45	Atomic-hydrogen cleaning of Sn from Mo/Si and DLC/Si extreme ultraviolet multilayer mirrors. Journal of Micro/ Nanolithography, MEMS, and MOEMS, 2012, 11, 021118-1.	1.0	10
46	The diffraction efficiency of echelle gratings increased by ion-beam polishing of groove surfaces. Technical Physics Letters, 2016, 42, 844-847.	0.2	10
47	Current State of Development of a Microscope Operating at a Wavelength of 3.37 nm at the Institute of Physics of Microstructures of the Russian Academy of Sciences. Journal of Surface Investigation, 2018, 12, 1253-1263.	0.1	10
48	Raman scattering study of nanoscale Mo/Si and Mo/Be periodic multilayer structures. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, .	0.9	10
49	Phonon, plasmon and electronic properties of surfaces and interfaces of periodic W/Si and Si/W multilayers. Physical Chemistry Chemical Physics, 2021, 23, 15076-15090.	1.3	10
50	Microstructural Transformation of Nanoscale Be Layers in the Mo/Be and Be/Mo Periodic Multilayer Mirrors Investigated by Raman Spectroscopy. Journal of Physical Chemistry C, 2021, 125, 2729-2738.	1.5	10
51	Influence of ion-beam etching by Ar ions with an energy of 200â€“1000â€‰â€‰eV on the roughness and sputtering yield of a single-crystal silicon surface. Applied Optics, 2022, 61, 2825.	0.9	10
52	Absolutely Calibrated Spectrally Resolved Measurements of Xe Laser Plasma Radiation Intensity in the EUV Range. Technical Physics, 2018, 63, 1507-1510.	0.2	9
53	Development of Technological Principles for Creating a System of Microfocus X-Ray Tubes Based on Silicon Field Emission Nanocathodes. Technical Physics, 2019, 64, 1742-1748.	0.2	9
54	<title>A plane wave diffraction on a pin-hole in a film with a finite thickness and real electrodynamic properties</title>. , 2008, , .		8

#	Article	IF	Citations
55	Use of cluster secondary ions for minimization of matrix effects in the SIMS depth profiling of La/B4C multilayer nanostructures. Journal of Surface Investigation, 2010, 4, 807-810.	0.1	8
56	Detecting quasi-periodic {11n} (n = 7â€“11) faces in samples with Ge/Si quantum dots by grazing X-ray reflectometry. Technical Physics Letters, 2010, 36, 108-111.	0.2	8
57	Investigation of supersmooth optical surfaces and multilayer elements using soft X-ray radiation. Technical Physics, 2013, 58, 1371-1379.	0.2	8
58	Preparation and roughness metrology of supersmooth optical surfaces. Journal of Surface Investigation, 2015, 9, 761-764.	0.1	8
59	Precision aspherization of the surface of optical elements by ion-beam etching. Journal of Surface Investigation, 2015, 9, 765-770.	0.1	8
60	Maskless X-Ray Lithography Based on Microoptical Electromechanical Systems and Microfocus X-Ray Tubes. Journal of Surface Investigation, 2018, 12, 944-952.	0.1	8
61	Set of Multilayer X-Ray Mirrors for a Double-Mirror Monochromator Operating in the Wavelength Range of 0.41â€“15.5 nm. Journal of Surface Investigation, 2019, 13, 1-7.	0.1	8
62	Matched characterization of super-multiperiod superlattices. Journal Physics D: Applied Physics, 2020, 53, 455103.	1.3	8
63	Multilayer Cr/Sc Mirrors with Improved Reflection for the â€œWater Transparency Windowâ€•Range. Technical Physics, 2020, 65, 1809-1813.	0.2	8
64	Problem of roughness detection for supersmooth surfaces. Proceedings of SPIE, 2011, , .	0.8	7
65	Sputtering of carbon using hydrogen ion beams with energies of 60â€“800 eV. Nuclear Instruments & Methods in Physics Research B, 2016, 387, 73-76.	0.6	7
66	Matched X-Ray Reflectometry and Diffractometry of Super-Multiperiod Heterostructures Grown by Molecular Beam Epitaxy. Semiconductors, 2019, 53, 1910-1913.	0.2	7
67	Modular Device for the Formation and Study of Cluster Beams of Inert and Molecular Gases. Journal of Surface Investigation, 2019, 13, 862-869.	0.1	7
68	Two-mirror projection objective of a nanolithographer at Î» = 13.5 nm. Bulletin of the Russian Academy of Sciences: Physics, 2011, 75, 57-60.	0.1	6
69	Chemically amplified resists for high-resolution lithography. Russian Microelectronics, 2013, 42, 165-175.	0.1	6
70	Polished sitall substrates for X-ray optics. Journal of Surface Investigation, 2013, 7, 612-616.	0.1	6
71	Application of cluster beams for the physics and technologies of microstructures. Journal of Surface Investigation, 2017, 11, 496-500.	0.1	6
72	Stable Multilayer Reflective Coatings for Î»(HeI) = 58.4 nm for the KORTES Solar Telescope. Technical Physics Letters, 2019, 45, 85-88.	0.2	6

#	Article	IF	Citations
73	Optimization of Composition, Synthesis, and Study of Broadband Multilayer Mirrors for the EUV Spectral Range. Technical Physics, 2019, 64, 1673-1679.	0.2	6
74	High-resolution laboratory reflectometer for the study of x-ray optical elements in the soft and extreme ultraviolet wavelength ranges. Review of Scientific Instruments, 2020, 91, 063103.	0.6	6
75	Beryllium-Based Multilayer Mirrors for the Soft X-Ray and Extreme Ultraviolet Wavelength Ranges. Journal of Surface Investigation, 2020, 14, 124-134.	0.1	6
76	Size-dependent plasmon effects in periodic W-Si- based mirrors, investigated by X-ray photoelectron spectroscopy. Applied Surface Science, 2021, 566, 150616.	3.1	6
77	X-ray and vacuum-ultraviolet plasma spectroscopy with the use of new focusing multilayer structures. JETP Letters, 2008, 87, 27-29.	0.4	5
78	An extreme ultraviolet radiation source based on plasma heated by millimeter range radiation. Bulletin of the Russian Academy of Sciences: Physics, 2011, 75, 64-66.	0.1	5
79	Sub-micrometer resolution proximity X-ray microscope with digital image registration. Review of Scientific Instruments, 2015, 86, 063701.	0.6	5
80	Surface shape measurement of mirrors in the form of rotation figures by using point diffraction interferometer. Journal of Modern Optics, 2017, 64, 413-421.	0.6	5
81	Microfocus X-Ray Tubes with a Silicon Autoemission Nanocathode as an X-Ray Source. Bulletin of the Lebedev Physics Institute, 2018, 45, 1-5.	0.1	5
82	Polishing the surface of a z-cut KDP crystal by neutralized argon ions. Applied Optics, 2018, 57, 6911.	0.9	5
83	Vacuum Ultraviolet and Soft X-ray Broadband Monochromator for a Synchrotron Radiation Metrological Station. Optoelectronics, Instrumentation and Data Processing, 2019, 55, 107-114.	0.2	5
84	Inhibition of chemical interaction of molybdenum and silicon in a Mo/Si multilayer structure by the formation of intermediate compounds. Physical Chemistry Chemical Physics, 2021, 23, 1363-1370.	1.3	5
85	Phase analysis of tungsten and phonon behavior of beryllium layers in W/Be periodic multilayers. Physical Chemistry Chemical Physics, 2021, 23, 23303-23312.	1.3	5
86	Obtaining of Smooth High-Precision Surfaces by the Mechanical Lapping Method. Technical Physics, 2020, 65, 1873-1879.	0.2	5
87	Thermal loads of X-ray tubes with a fixed anode under long-duration exposure. High Temperature, 2006, 44, 766-772.	0.1	4
88	New focusing multilayer structures for X-ray and VUV plasma spectroscopy. Technical Physics, 2010, 55, 1018-1023.	0.2	4
89	Manufacturing and characterization of diffraction quality normal incidence optics for the XEUV range. , 2011, , .		4
90	System for illumination of an EUV-nanolithograph mask. Journal of Surface Investigation, 2011, 5, 517-519.	0.1	4

#	Article	IF	Citations
91	A technological complex for manufacturing of precise imaging optics. Bulletin of the Russian Academy of Sciences: Physics, 2011, 75, 53-56.	0.1	4
92	On the problems of the application of atomic-force microscopes for studying the surface roughness of elements for imaging optics. Journal of Surface Investigation, 2013, 7, 797-801.	0.1	4
93	High performance multilayer La/B4C mirrors with carbon barrier layers. Bulletin of the Russian Academy of Sciences: Physics, 2014, 78, 61-63.	0.1	4
94	Design of a soft X-ray and extreme UV reflectometer equipped with a high-resolution monochromator and high-brightness laser-plasma radiation source. Journal of Surface Investigation, 2015, 9, 726-734.	0.1	4
95	Problems and prospects of maskless (B)EUV lithography. Proceedings of SPIE, 2016, , .	0.8	4
96	Miniature Ion Source KLAN-10M with a Plasma Neutralizer. Journal of Surface Investigation, 2019, 13, 182-187.	0.1	4
97	X-ray scattering by the fused silica surface etched by low-energy Ar ions. Journal of X-Ray Science and Technology, 2019, 27, 857-870.	0.7	4
98	Optical, Mechanical, and Thermal Properties of Free-Standing MoSi2Nx and ZrSi2Ny Nanocomposite Films. Technical Physics, 2019, 64, 1590-1595.	0.2	4
99	Mo/Si Multilayer Mirrors with B4C and Be Barrier Layers. Journal of Surface Investigation, 2019, 13, 169-172.	0.1	4
100	The Smoothing Effect of Si Layers in Multilayer Be/Al Mirrors for the 17- to 31-nm Range. Technical Physics, 2020, 65, 1786-1791.	0.2	4
101	Ultrasmooth beryllium substrates for solar astronomy in extreme ultraviolet wavelengths. Applied Optics, 2019, 58, 3652.	0.9	4
102	Optical constants of sputtered beryllium thin films determined from photoabsorption measurements in the spectral range 20.4â€“250â€…eV. Journal of Synchrotron Radiation, 2020, 27, 75-82.	1.0	4
103	Investigation of microstructure and reflectivity of thermally annealed Mo/Be and W/Be multilayer mirrors. Surfaces and Interfaces, 2022, 28, 101656.	1.5	4
104	Microstructure and phonon behavior in W/Si periodic multilayer structures. Journal Physics D: Applied Physics, 2022, 55, 175302.	1.3	4
105	Reflective mask for projection lithography operating at a wavelength of 13.5 nm. Journal of Surface Investigation, 2012, 6, 568-573.	0.1	3
106	Influence of the chemical structure of (co)polymer resists on their sensitivity to radiation. Bulletin of the Russian Academy of Sciences: Physics, 2012, 76, 159-162.	0.1	3
107	Thermal stability of a freestanding EUV filter under long-term vacuum annealing at 700â€“1000Â°C. Journal of Surface Investigation, 2012, 6, 482-486.	0.1	3
108	A laser plasma source of EUV radiation for projection nanolithography. Bulletin of the Russian Academy of Sciences: Physics, 2013, 77, 6-9.	0.1	3

#	Article	IF	Citations
109	Multilayer X-ray mirrors for the (4.4â€“5)-nm carbon-window spectral region. Crystallography Reports, 2013, 58, 505-508.	0.1	3
110	Effect of polymer matrix and photoacid generator on the lithographic properties of chemically amplified photoresist. Russian Microelectronics, 2014, 43, 392-400.	0.1	3
111	Principles of certification of aspherical mirrors for an EUV lithography lens at a wavelength of 13.5 nm. Journal of Surface Investigation, 2015, 9, 735-740.	0.1	3
112	Electron Energy Conversion to EUV Radiation in the KÎ± Line of Be in the â€œShooting Throughâ€•Geometry. Journal of Experimental and Theoretical Physics, 2018, 127, 985-993.	0.2	3
113	Observation of Laser-Induced Spark in the Density Jump in a Gas-Jet Target. Technical Physics Letters, 2019, 45, 970-972.	0.2	3
114	Influence of Thermal Annealing on the Properties of Multilayer Mo/Be Mirrors. Technical Physics, 2019, 64, 1692-1697.	0.2	3
115	Influence of Beryllium Barrier Layers on the Properties of Mo/Si Multilayer Mirrors. Technical Physics, 2019, 64, 1688-1691.	0.2	3
116	Application of point diffraction interferometry for measuring angular displacement to a sensitivity of 001 arcsec. Applied Optics, 2015, 54, 9315.	2.1	3
117	Effect of annealing on the interface formation in Mo/Be multilayer structures without/with a barrier layer. Physical Chemistry Chemical Physics, 2021, 23, 23978-23985.	1.3	3
118	Faraday Isolator With Composite Magneto-Optical TGG-Sapphire Elements. IEEE Journal of Quantum Electronics, 2021, 57, 1-8.	1.0	3
119	Prospects for the Use of X-Ray Tubes with a Field-Emission Cathode and a Through-Type Anode in the Range of Soft X-Ray Radiation. Technical Physics, 2020, 65, 1726-1735.	0.2	3
120	Highly reflective Ru/Y multilayer mirrors for the spectral range of 9-11â€…nm. Optics Express, 2022, 30, 19332.	1.7	3
121	Emission Spectra of Heavy Inert Gases Kr and Xe in the Range from 3 to 20 nm Obtained under Pulsed Laser Excitation Using Various Gas Jets as Targets. Optics and Spectroscopy (English Translation of) Tj ETQq1 1 0.784314 rgBT /Overlock	0.4	3
122	Details of how to mount high-precision optics. Journal of Surface Investigation, 2010, 4, 359-365.	0.1	2
123	SIMS depth profiling of Pd/B4C, Ni/C, and Cr/Sc multilayer metal structures using registration of cluster secondary ions: The problem of depth resolution enhancement. Bulletin of the Russian Academy of Sciences: Physics, 2011, 75, 100-104.	0.1	2
124	Diffraction-limited short-wavelength optics: Analysis, fabrication, and application. Journal of Surface Investigation, 2012, 6, 464-472.	0.1	2
125	Using Ion-beam etching to smooth fused silica surfaces. Bulletin of the Russian Academy of Sciences: Physics, 2014, 78, 57-60.	0.1	2
126	The effect of bombardment with neutralized neon ions on the roughness of a fused silica and beryllium surface. Journal of Surface Investigation, 2017, 11, 485-489.	0.1	2

#	Article	IF	Citations
127	Aperiodic Mirrors Based on Multilayer Beryllium Systems. Journal of Surface Investigation, 2019, 13, 267-271.	0.1	2
128	Multilayer Ag/Y Mirrors for the Spectral Range of 9â€“11 nm. Technical Physics, 2019, 64, 1684-1687.	0.2	2
129	Beryllium as a Material for Thermally Stable X-Ray Mirrors. Technical Physics, 2019, 64, 1596-1601.	0.2	2
130	Simulation of Local Error Correction of the Surface Shape by a Low-Dimensional Ion Beam. Technical Physics, 2019, 64, 1560-1565.	0.2	2
131	Broadband Mirrors for Spectroheliographs at the KORTES Sun Study Facility. Technical Physics, 2020, 65, 1792-1799.	0.2	2
132	Application of Novel Multilayer Normal-Incidence Mirrors for EUV Solar Spectroscopy. Technical Physics, 2020, 65, 1736-1739.	0.2	2
133	Intrinsic roughness and interfaces of Cr/Be multilayers. Journal of Applied Crystallography, 2021, 54, 1747-1756.	1.9	2
134	Multilayer x-ray mirrors based on W/B 4 C with ultrashort (d = 0.7â€“1.5 nm) periods. Journal of Surface Investigation, 2007, 1, 7-12.	0.1	1
135	Effect of pinhole roughness on light diffraction. Journal of Surface Investigation, 2008, 2, 511-513.	0.1	1
136	Nanostructure formation on an EUV lithographer stand: First results. Bulletin of the Russian Academy of Sciences: Physics, 2013, 77, 1-5.	0.1	1
137	Comparative characteristics of optical methods for measuring the surface shape at the institute for physics of microstructures, Russian Academy of Sciences. Journal of Surface Investigation, 2015, 9, 741-744.	0.1	1
138	Fabrication and Study of a Concave Crystal Mirror for the KORTES Project. Technical Physics, 2019, 64, 1680-1683.	0.2	1
139	Material Surface Treatment for Design of Composite Optical Elements. Technical Physics, 2020, 65, 1828-1831.	0.2	1
140	Emission Spectra of Light Inert Gases Ne and Ar in the 3â€“20 nm Range under Pulsed Laser Excitation Using Various Gas Jets as Targets. Optics and Spectroscopy (English Translation of Optika I) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 217 T	0.2	
141	Mirrors with a Subnanometer Surface Shape Accuracy. , 2013, , 595-616.		1
142	Effect of ion beam etching on the surface roughness of bare and silicon covered beryllium. Proceedings of SPIE, 2017, , .	0.8	1
143	Measurement Error of Interferometers with Diffraction Reference Wave. Technical Physics, 2019, 64, 1698-1703.	0.2	1
144	The Microstructure of Transition Boundaries in Multilayer Mo/Be Systems. Technical Physics, 2020, 65, 1800-1808.	0.2	1

#	Article	IF	Citations
145	Ion-Beam Methods for High-Precision Processing of Optical Surfaces. Technical Physics, 2020, 65, 1837-1845.	0.2	1
146	A volume plasmon blueshift in thin silicon films embedded within Be/Si periodic multilayer mirrors. Physical Chemistry Chemical Physics, 0, , .	1.3	1
147	High-aperture low-coherence interferometer with a diffraction reference wave. Optics Letters, 2022, 47, 3459.	1.7	1
148	Activity in manufacturing and characterization of X-ray optical elements and ultrahigh-resolution systems at IPM RAS. Bulletin of the Russian Academy of Sciences: Physics, 2009, 73, 62-65.	0.1	0
149	Manufacturing of diffraction-quality optical elements for high-resolution optical systems. , 2009, , .		0
150	Design of the aspheric Schwarzschild lens for a nanolithographer with the operating wavelength Î» = 13.5 nm. Journal of Surface Investigation, 2011, 5, 512-516.	0.1	0
151	Project for manufacturing a Russian EUV nanolithographer for the fabrication of chips according to technological standards of 22 nm. Bulletin of the Russian Academy of Sciences: Physics, 2011, 75, 44-48.	0.1	0
152	Multilayer structures for the water-window spectral range on the basis of scandium. Journal of Surface Investigation, 2012, 6, 598-600.	0.1	0
153	Comparative heat load testing of freestanding multilayer Mo/ZrSi2 and Mo/NbSi2. Bulletin of the Russian Academy of Sciences: Physics, 2013, 77, 83-85.	0.1	0
154	A Two-coordinate digital detector for microscopy in the soft X-ray region. Bulletin of the Russian Academy of Sciences: Physics, 2014, 78, 64-67.	0.1	0
155	Multilayer X-Ray Image-Forming Optics. Bulletin of the Russian Academy of Sciences: Physics, 2019, 83, 105-111.	0.1	0
156	Microstructure and Density of Mo Films in Multilayer Mo/Si Mirrors. Journal of Surface Investigation, 2019, 13, 8-13.	0.1	0
157	On the Possibilities of Multilayer Mirrors for Measuring the Concentration of Boron Impurities in Diamond. Journal of Surface Investigation, 2019, 13, 173-176.	0.1	0
158	Emission Properties of Laser Plasma Excited on Molecular-Cluster Carbon Dioxide Jets. Technical Physics, 2019, 64, 1566-1572.	0.2	0
159	Optimization of an Anode Membrane with a Transmission-Type Target in a System of Soft X-Ray Sources for X-Ray Nanolithography. Technical Physics, 2020, 65, 1709-1716.	0.2	0
160	Creation of Composite Optical Elements by the Ion-Beam Surface-Activation Method for Laser Applications. Journal of Surface Investigation, 2020, 14, 1016-1021.	0.1	0
161	Modification and Polishing of the Holographic Diffraction Grating Grooves by a Neutralized Ar Ion Beam. Technical Physics, 2020, 65, 1780-1785.	0.2	0
162	Projection Objective For an EUV-Lithographic Workbench. Journal of Surface Investigation, 2020, 14, 562-573.	0.1	0

#	Article	IF	Citations
163	10.1007/s11448-008-1007-7. , 2010, 87, 27.		0
164	Emission Spectra of Molecular Gases N2 and CO2 in the Range of 3â€“20 nm upon Pulsed Laser Excitation of Various Gas-Jet Targets. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2021, 129, 789-793.	0.2	0
165	Y-Based Multilayer Mirrors for the Spectral Range of 8â€“12 nm. Bulletin of the Lebedev Physics Institute, 2021, 48, 406-410.	0.1	0
166	Raman scattering studies of the ambient atmospheric thermal stability of Be in periodic Be/Mo and Be/W multilayer mirrors. Journal Physics D: Applied Physics, 2022, 55, 245301.	1.3	0