

Dmitry Roshchupkin

List of Publications by Year in descending order

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papers

852
citations

567281

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96
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96
docs citations

96
times ranked

498
citing authors

#	ARTICLE	IF	CITATIONS
1	Dynamical theory for calculations of X-ray spectra from crystals modulated by surface acoustic waves. <i>Journal of Applied Crystallography</i> , 2004, 37, 52-61.	4.5	45
2	Surface acoustic wave amplification by direct current-voltage supplied to graphene film. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	44
3	X-ray Bragg diffraction from langasite crystal modulated by surface acoustic wave. <i>Journal of Applied Physics</i> , 2003, 94, 6692-6696.	2.5	41
4	X-ray diffraction analysis of the surface acoustic wave propagation in langatate crystal. <i>Applied Physics A: Materials Science and Processing</i> , 2009, 94, 477-484.	2.3	34
5	Scanning electron microscopy observation of excitation of the surface acoustic waves by the regular domain structures in the LiNbO ₃ crystals. <i>Applied Physics Letters</i> , 1992, 60, 2330-2331.	3.3	32
6	Phase-matching directions, refined Sellmeier equations, and second-order nonlinear coefficient of the infrared Langatate crystal La ₃ Ga ₅ Ta ₅ O ₁₄ . <i>Optics Letters</i> , 2014, 39, 4033.	3.3	32
7	Engineering of Numerous Moiré Superlattices in Twisted Multilayer Graphene for Twistronics and Straintronics Applications. <i>ACS Nano</i> , 2021, 15, 12358-12366.	14.6	31
8	X-ray diffraction from perfect silicon crystals distorted by surface acoustic waves. <i>Journal of Applied Crystallography</i> , 2000, 33, 1019-1022.	4.5	30
9	Reflection of surface acoustic waves on domain walls in a LiNbO ₃ crystal. <i>Applied Physics Letters</i> , 1994, 64, 164-165.	3.3	28
10	Surface acoustic wave propagation in graphene film. <i>Journal of Applied Physics</i> , 2015, 118, .	2.5	26
11	Coherent and diffuse X-ray scattering in crystals modulated by a surface acoustic wave. <i>Journal of Applied Crystallography</i> , 2010, 43, 520-530.	4.5	25
12	X-ray topography analysis of acoustic wave fields in the SAW-resonator structures. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2005, 52, 2081-2087.	3.0	24
13	Advanced piezoelectric crystal Ca ₃ TaGa ₃ Si ₂ O ₁₄ : growth, crystal structure perfection, and acoustic properties. <i>Applied Physics A: Materials Science and Processing</i> , 2014, 114, 1105-1112.	2.3	23
14	Combustion synthesis in bi-layered (Ti [~] Al)/(Ni [~] Al) system. <i>Journal of Materials Processing Technology</i> , 2017, 240, 60-67.	6.3	19
15	Diffraction of surface acoustic waves on the zigzag domain wall in a Gd ₂ (MoO ₄) ₃ crystal. <i>Applied Physics Letters</i> , 1996, 68, 159-160.	3.3	17
16	Correlation of Electrical Properties and Acoustic Loss in Single Crystalline Lithium Niobate-Tantalate Solid Solutions at Elevated Temperatures. <i>Crystals</i> , 2021, 11, 398.	2.2	17
17	Single crystals of ferroelectric lithium niobate-tantalate LiNb _{1-x} Ta _x O ₃ solid solutions for high-temperature sensor and actuator applications. <i>Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials</i> , 2020, 76, 1071-1076.	1.1	17
18	X-ray imaging of the surface acoustic wave propagation in La ₃ Ga ₅ SiO ₁₄ crystal. <i>Applied Physics Letters</i> , 2013, 103, 154101.	3.3	16

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19	Grazing incidence phase Fresnel zone plate for X-ray focusing. Optics Communications, 1994, 109, 324-327.	2.1	14
20	Diffraction of a focused x-ray beam from La ₃ Ga ₅ SiO ₁₄ crystal modulated by surface acoustic waves. Journal of Applied Physics, 2011, 110, 124902.	2.5	14
21	High-Frequency X-ray Beam Chopper Based on Diffraction by Surface Acoustic Waves. Journal of Synchrotron Radiation, 1998, 5, 1357-1362.	2.4	13
22	High-resolution x-ray topography and diffraction study of bulk regular domain structures in LiNbO ₃ crystals. Applied Physics Letters, 2004, 85, 5325-5327.	3.3	13
23	Time modulation of an x-ray beam by surface acoustic waves. Review of Scientific Instruments, 1993, 64, 379-382.	1.3	12
24	Measurement of independent piezoelectric moduli of Ca ₃ NbGa ₃ Si ₂ O ₁₄ , La ₃ Ga _{5.5} Ta _{0.5} O ₁₄ and La ₃ Ga ₅ SiO ₁₄ single crystals. Journal of Applied Crystallography, 2018, 51, 1174-1181.	4.5	11
25	Two-dimensional X-ray focusing by a phase Fresnel zone plate at grazing incidence. Optics Communications, 1995, 114, 9-12.	2.1	10
26	X-ray diffraction investigation of high-temperature SAW-sensor based on LGS crystal. Procedia Engineering, 2011, 25, 1020-1023.	1.2	10
27	Piezoelectric strain coefficients in La ₃ Ga _{5.3} Ta _{0.5} Al _{0.2} O ₁₄ and Ca ₃ TaGa ₃ Si ₂ O ₁₄ crystals. AIP Advances, 2013, 3, 102108.	1.3	10
28	X-ray diffraction on the X-cut of a Ca ₃ TaGa ₃ Si ₂ O ₁₄ single crystal modulated by a surface acoustic wave. Journal of Applied Physics, 2014, 115, 244903.	2.5	10
29	Enhanced Structural and Luminescent Properties of Carbon-Assisted ZnO Nanorod Arrays on (100) Si Substrate. Journal of Electronic Materials, 2018, 47, 4404-4411.	2.2	10
30	Study of LiNbO ₃ and LiTaO ₃ ferroelectric domain structures using high-resolution x-ray diffraction under application of external electric field. Journal of Applied Physics, 2009, 105, .	2.5	9
31	Study of middle infrared difference frequency generation using a femtosecond laser source in LGT. Optics Letters, 2017, 42, 3698.	3.3	9
32	Piezoelectric Ca ₃ NbGa ₃ Si ₂ O ₁₄ crystal: crystal growth, piezoelectric and acoustic properties. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	8
33	Direct growth of graphene film on piezoelectric La ₃ Ga _{5.5} Ta _{0.5} O ₁₄ crystal. Physica Status Solidi - Rapid Research Letters, 2016, 10, 639-644.	2.4	8
34	Aspects of the a-TiOx memristor active medium technology. Journal of Applied Physics, 2018, 124, .	2.5	8
35	Low-temperature strain relaxation in ion-irradiated pseudomorphic SiGe/Si structures. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2002, 89, 350-354.	3.5	7
36	Investigation of surface acoustic wave fields in silicon crystals by x-ray diffraction: A dynamical theory approach. Journal of Applied Physics, 2005, 97, 113505.	2.5	7

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37	Investigation of the Piezoelectric Effect in LiNbO ₃ and LiTaO ₃ Crystals by X-Ray Diffraction. <i>Ferroelectrics</i> , 2007, 351, 163-175.	0.6	7
38	X-ray beam induced current method at the laboratory x-ray source. <i>Review of Scientific Instruments</i> , 2011, 82, 093702.	1.3	7
39	XBIC Investigation of the Grain Boundaries in Multicrystalline Si on the Laboratory X-Ray Source. <i>Solid State Phenomena</i> , 0, 178-179, 226-229.	0.3	7
40	X-ray diffraction study of surface acoustic waves and pseudo-surface acoustic waves propagation in La ₃ Ga _{5.5} Ta _{0.5} O ₁₄ crystal. <i>Journal of Applied Physics</i> , 2013, 113, 144909.	2.5	7
41	Observation of sagittal X-ray diffraction by surface acoustic waves in Bragg geometry. <i>Journal of Applied Crystallography</i> , 2017, 50, 525-530.	4.5	7
42	Surface acoustic wave interactions with regular domain structures in LiNbO ₃ crystals. <i>Ferroelectrics, Letters Section</i> , 1995, 19, 139-144.	1.0	6
43	Electromigration in Al thin films induced by surface acoustic waves: application to imaging. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 1999, 46, 856-860.	3.0	6
44	Study of the specific features of lithium niobate crystals near the domain walls. <i>Physics of the Solid State</i> , 2009, 51, 1500-1502.	0.6	6
45	Pulse picker for synchrotron radiation driven by a surface acoustic wave. <i>Optics Letters</i> , 2017, 42, 1915.	3.3	6
46	X-ray standing waves effects for a multilayer mirror modulated by surface acoustic waves. <i>Applied Physics Letters</i> , 1999, 75, 639-640.	3.3	5
47	Low-temperature strain relaxation in SiGe/Si heterostructures implanted with Ge ⁺ ions. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2003, 100, 35-39.	3.5	5
48	Visualization of a ferroelectric domain structure in the X cut of a LiNbO ₃ crystal using x-ray diffraction and topography. <i>Applied Physics Letters</i> , 2009, 94, 222903.	3.3	5
49	Vapor-phase synthesis of aligned zinc oxide nanorod arrays on various substrates. <i>Inorganic Materials</i> , 2011, 47, 740-745.	0.8	5
50	Piezoelectric crystal Ca ₃ TaGa ₃ Si ₂ O ₁₄ : Synthesis, structural perfection, piezoelectric and acoustic properties. <i>Journal of Surface Investigation</i> , 2012, 6, 490-493.	0.5	5
51	Technological process and resonator design optimization of Ir/LGS high temperature SAW devices. , 2014, , .		5
52	Piezoelectric La ₃ Ga _{5.3} Ta _{0.5} Al _{0.2} O ₁₄ crystal: growth, crystal structure perfection, piezoelectric, and acoustic properties. <i>Applied Physics A: Materials Science and Processing</i> , 2014, 116, 1477-1488.	2.3	5
53	Two-dimensional X-ray focusing by off-axis grazing incidence phase Fresnel zone plate on the laboratory X-ray source. <i>Optics Communications</i> , 2017, 385, 15-18.	2.1	5
54	Low temperature synthesis of graphene nanocomposites using surface passivation of porous silicon nanocrystallites with carbon atoms. <i>Diamond and Related Materials</i> , 2019, 92, 53-60.	3.9	5

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55	X-ray topography analysis of bulk acoustic wave resonators. Bulletin of the Russian Academy of Sciences: Physics, 2007, 71, 72-75.	0.6	4
56	Formation of short-period multilayer W/B4C compositions. Technical Physics, 2012, 57, 1709-1715.	0.7	4
57	Effect of the ultrasonic frequency on the multiple X-ray scattering from a LiNbO ₃ crystal modulated by a surface acoustic wave. Crystallography Reports, 2012, 57, 24-32.	0.6	4
58	Scanning Electron Microscopy Investigation of Surface Acoustic Wave Propagation in a 41° YX-Cut of a LiNbO ₃ Crystal/Si Layered Structure. Crystals, 2021, 11, 1082.	2.2	4
59	Formation of a metastable superlattice by x-ray interaction with standing surface acoustic waves. Applied Physics Letters, 1993, 63, 305-307.	3.3	3
60	One and two dimensional space scanings of x-ray beams by diffraction on surface acoustic waves: Application to x-ray imaging. Review of Scientific Instruments, 1998, 69, 2704-2707.	1.3	3
61	X-ray diffraction by phase diffraction gratings. Journal of Applied Crystallography, 2015, 48, 1159-1164.	4.5	3
62	SEM imaging of acoustically stimulated charge transport in solids. Applied Physics Letters, 2017, 110, 264103.	3.3	3
63	The Peculiarities of the Acoustic Waves of Zero-Order Focusing in Lithium Niobate Plate. Sensors, 2021, 21, 4000.	3.8	3
64	Ultraviolet Radiation Sensor Based on ZnO Nanorods/La ₃ Ga ₅ SiO ₁₄ Microbalance. Sensors, 2021, 21, 4170.	3.8	3
65	Diffuse x-ray scattering from a crystal modulated by surface acoustic wave. Technical Physics Letters, 2007, 33, 244-247.	0.7	2
66	X-Ray Diffraction on a LiNbO ₃ Crystal with a Short Period Regular Domain Structure. Ferroelectrics, 2009, 391, 122-127.	0.6	2
67	Investigation of silicon structures with periodically varying porosity by x-ray diffractometry methods. Journal of Surface Investigation, 2010, 4, 947-950.	0.5	2
68	Investigation into the structural perfection and acoustic properties of a piezoelectric Ca ₃ TaGa ₃ Si ₂ O ₁₄ crystal. Journal of Surface Investigation, 2012, 6, 947-950.	0.5	2
69	Phase diffraction gratings based on a Si(400) crystal. Journal of Surface Investigation, 2013, 7, 663-666.	0.5	2
70	Zinc oxide films prepared via the lateral growth of aligned nanorod arrays. Inorganic Materials, 2015, 51, 1199-1204.	0.8	2
71	Enhanced structural and magnetic properties of carbon-assisted ZnO nanorod arrays on (100) Si substrate. Materials Express, 2018, 8, 68-76.	0.5	2
72	Photoresponse in Multilayer Graphene during the Passage of a Surface Acoustic Wave. Technical Physics Letters, 2020, 46, 220-223.	0.7	2

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73	X-ray diffraction by surface acoustic waves. Journal of Applied Crystallography, 2021, 54, 180-194.	4.5	2
74	High-temperature poling treatment of congruent ferroelectric LiNb _{0.5} Ta _{0.5} O ₃ solid solution single crystals. Modern Electronic Materials, 2021, 7, 17-20.	0.6	2
75	Electro-acoustic modulator for X-ray based digital data transmission. EPJ Applied Physics, 1999, 6, 331-333.	0.7	1
76	Investigation of piezoelectric effect in lithium tantalate crystals by high-resolution X-ray diffractometry. Journal of Surface Investigation, 2008, 2, 534-536.	0.5	1
77	Advanced piezoelectric crystal Ca ₃ TaGa ₃ Si ₂ O ₁₄ : Growth, crystal structure perfection, piezoelectric and acoustic properties. , 2012, , .		1
78	XBIC using a laboratory X-ray source. Bulletin of the Russian Academy of Sciences: Physics, 2013, 77, 21-23.	0.6	1
79	Promising materials of acoustoelectronics. Russian Microelectronics, 2013, 42, 463-466.	0.5	1
80	Studying acoustic-wave fields in langasite-family crystals using the BESSY II synchrotron radiation source. Journal of Surface Investigation, 2013, 7, 659-662.	0.5	1
81	Studying stacking faults in SiC by the XBIC method using a laboratory X-ray source. Journal of Surface Investigation, 2014, 8, 155-157.	0.5	1
82	X-ray diffraction on La ₃ Ga ₅ SiO ₁₄ crystal modulated by SAW near the K absorption edge of Ga. Applied Physics Letters, 2020, 116, 174101.	3.3	1
83	Properties of high-temperature poling ferroelectric crystals congruent solid solution LiNb _{0.5} Ta _{0.5} O ₃ . Izvestiya Vysshikh Uchebnykh Zavedenii Materialy Elektronnoi Tekhniki = Materials of Electronics Engineering, 2021, 24, 34-39.	0.2	1
84	Piezo-modulated active grating for selecting X-ray pulses separated by one nanosecond. Optics Express, 2021, 29, 34962.	3.4	1
85	Low-temperature relaxation of elastic stresses in SiGe/Si heterostructures irradiated with Ge ⁺ ions. Semiconductors, 2004, 38, 313-318.	0.5	0
86	X-ray optics at the Russian academy of Sciencesâ€™ institute of high-purity materials. Bulletin of the Russian Academy of Sciences: Physics, 2011, 75, 33-35.	0.6	0
87	Transformation of defect layer and zinc implant profile in silicon during thermal annealing. Crystallography Reports, 2012, 57, 903-908.	0.6	0
88	Forming a regular domain structures at 127° Y′-cut of a LiTaO ₃ crystal by using direct e-beam writing. , 2013, , .		0
89	Piezoelectric La ₃ Ga _{5.3} Ta _{0.5} Al _{0.2} O ₁₄ crystal: Growth, crystal structure perfection, piezoelectric, and acoustic properties. , 2013, , .		0
90	Investigation of surface and pseudo-surface acoustic waves excitation and propagation in La ₃ Ga _{5.3} Ta _{0.5} SiO ₁₄ crystal. , 2013, , .		0

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91	X-ray imaging of the surface acoustic wave propagation in $\text{La}_3\text{Ga}_5\text{SiO}_{14}$ crystal. , 2013, , .		0
92	X-ray analysis of surface and pseudo-surface acoustic waves propagation in disordered $\text{La}_3\text{Ga}_5\text{SiO}_{14}$ and ordered $\text{Ca}_3\text{TaGa}_3\text{Si}_2\text{O}_{14}$ crystals. , 2014, , .		0
93	Advanced ordered piezoelectric $\text{Ca}_3\text{NbGa}_3\text{Si}_2\text{O}_{14}$ crystal: Piezoelectric and acoustic properties. , 2014, , .		0
94	Acoustic properties of $\text{La}_3\text{Ga}_5.3\text{Ta}_{0.5}\text{Al}_{0.2}\text{O}_{14}$ crystal. Modern Electronic Materials, 2015, 1, 10-15.	0.6	0
95	Influence of the Quantum Well Structure and Growth Temperature on a Five-Layer InGaMnAs Quantum Well with an InGaAs Buffer Layer. Journal of Nanoscience and Nanotechnology, 2018, 18, 4355-4359.	0.9	0
96	Femtosecond optical parametric interactions in the Langatate LGT. , 2017, , .		0