Andrey Akhmatkhanov

List of Publications by Year
in descending order

88	873	516710 16	526287 27
papers	citations	h-index	g-index

89	89	89	654
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Micro- and nano-domain engineering in lithium niobate. Applied Physics Reviews, 2015, 2, .	11.3	173
2	Toward Ferroelectric Control of Monolayer MoS₂. Nano Letters, 2015, 15, 3364-3369.	9.1	62
3	Tilt control of the charged domain walls in lithium niobate. Applied Physics Letters, 2019, 114, .	3.3	39
4	Shape of isolated domains in lithium tantalate single crystals at elevated temperatures. Applied Physics Letters, 2013, 103, .	3.3	38
5	Time-dependent conduction current in lithium niobate crystals with charged domain walls. Applied Physics Letters, 2013, 103, .	3.3	35
6	Domain patterning by electron beam of MgO doped lithium niobate covered by resist. Applied Physics Letters, 2015, 106, .	3.3	33
7	Periodically poled crystals of KTP family: a review. Ferroelectrics, 2016, 496, 49-69.	0.6	33
8	Investigation of Jerky Domain Wall Motion in Lithium Niobate. Ferroelectrics, 2008, 374, 136-143.	0.6	30
9	Complex study of bulk screening processes in single crystals of lithium niobate and lithium tantalate family. Physics of the Solid State, 2010, 52, 2147-2153.	0.6	27
10	Superfast domain walls in KTP single crystals. Applied Physics Letters, 2017, 111, .	3.3	26
11	Polarization reversal and jump-like domain wall motion in stoichiometric LiTaO3 produced by vapor transport equilibration. Journal of Applied Physics, 2012, 111, 014101.	2.5	23
12	Direct observation of the domain kinetics during polarization reversal of tetragonal PMN-PT crystal. Applied Physics Letters, 2018, 113, .	3.3	17
13	Domain structure formation by local switching in the ion sliced lithium niobate thin films. Applied Physics Letters, 2020, 116, .	3.3	17
14	Characterization of Bulk Screening in Single Crystals of Lithium Niobate and Lithium Tantalate Family. Ferroelectrics, 2008, 374, 1-13.	0.6	16
15	Self-organizing formation of dendrite domain structures in lithium niobate and lithium tantalate crystals. Ferroelectrics, 2016, 500, 76-89.	0.6	16
16	Domain shape instabilities and dendrite domain growth in uniaxial ferroelectrics. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20170204.	3.4	16
17	Polarization reversal and domain kinetics in magnesium doped stoichiometric lithium tantalate. Applied Physics Letters, 2014, 105, .	3.3	15
18	Nonlinear Ramanâ€“Nath diffraction of femtosecond laser pulses. Optics Letters, 2014, 39, 4231.	3.3	15

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19	Formation of self-organized domain structures with charged domain walls in lithium niobate with surface layer modified by proton exchange. Journal of Applied Physics, 2017, 121, 104101.	2.5	15
20	As-grown domain structure in lithium tantalate with spatially nonuniform composition. Ferroelectrics, 2018, 525, 47-53.	0.6	15
21	Superfast domain wall motion in lithium niobate single crystals. Analogy with crystal growth. Applied Physics Letters, 2019, 114, .	3.3	13
22	Influence of the artificial surface dielectric layer on domain patterning by ion beam in MgO-doped lithium niobate single crystals. Applied Physics Letters, 2017, 110, .	3.3	12
23	Fatigue effect in ferroelectric crystals: Growth of the frozen domains. Journal of Applied Physics, 2012, 111, .	2.5	11
24	Domain Kinetics in Lithium Niobate Single Crystals with Photoresist Dielectric Layer. Ferroelectrics, 2012, 439, 3-12.	0.6	11
25	Domain wall orientation and domain shape in KTiOPO4 crystals. Applied Physics Letters, 2016, 109, 132901.	3.3	10
26	Direct observation of domain kinetics in rhombohedral PMN-28PT single crystals during polarization reversal. Applied Physics Letters, 2019, 115, .	3.3	9
27	Different domain switching kinetics in tetragonal PMN-PT single crystal studied by in situ observation and current analysis. Journal of the European Ceramic Society, 2020, 40, 2922-2928.	5.7	9
28	Fatigue Effect in Stoichiometric LiTaO₃Crystals Produced by Vapor Transport Equilibration. Ferroelectrics, 2012, 426, 142-151.	0.6	8
29	Analogy between growth of crystals and ferroelectric domains. Application of Wulff construction. Journal of Crystal Growth, 2019, 526, 125236.	1.5	8
30	Nonlinear Ramanâ€“Nath diffraction of femtosecond laser pulses in a 2D nonlinear photonic crystal. Optics Letters, 2015, 40, 4002.	3.3	7
31	Self-assembled domain structures: From micro- to nanoscale. Journal of Advanced Dielectrics, 2015, 05, 1550015.	2.4	7
32	Near-infrared second-harmonic generation versus mid-infrared optical parametric oscillation in multigrating and fan-out PPMgO:LN structures pumped by a repetitively pulsed 2-Î¼m Tm³⁺:Lu₂O₃-ceramics laser. Journal of the Optical Society of America B: Optical Physics, 2018, 35, 1674.	2.1	7
33	Polarization Reversal in Crystals of Congruent Lithium Tantalate at Elevated Temperatures. Ferroelectrics, 2012, 439, 40-46.	0.6	6
34	Abnormal kinetics of domain structure in KTA single crystals. Applied Physics Letters, 2019, 115, 212901.	3.3	6
35	Barkhausen pulses caused by domain merging in congruent lithium niobate. Applied Physics Letters, 2020, 117, .	3.3	6
36	Influence of Humidity on Local Polarization Reversal in a Rb:KTP Single Crystal. ACS Applied Electronic Materials, 2021, 3, 260-266.	4.3	6

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37	Linear diffraction of light waves in periodically poled lithium niobate crystal. Ferroelectrics, 2017, 508, 49-57.	0.6	5
38	Analysis of the switching current peaks in KTP during superfast domain wall motion. Ferroelectrics, 2018, 525, 11-17.	0.6	5
39	In Situ Imaging of Domain Structure Evolution in LaBGeO5 Single Crystals. Crystals, 2020, 10, 583.	2.2	5
40	Dense ferroelectric-ferroelastic domain structures in rhombohedral PMN-28PT single crystals. Applied Physics Letters, 2020, 116, .	3.3	5
41	Electric Field Poling of Lithium Niobate Crystals after Proton-Exchanged Channel Waveguide Fabrication. Ferroelectrics, 2012, 441, 9-16.	0.6	4
42	Investigation of polarization reversal and analysis of switching current data in KTP single crystals. Ferroelectrics, 2017, 508, 1-8.	0.6	4
43	Electrically controllable diffraction of light on periodic domain structures in ferroelectric crystals. Ferroelectrics, 2019, 542, 58-63.	0.6	4
44	Piezoelectric Actuation of Graphene-Coated Polar Structures. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2020, 67, 2142-2147.	3.0	4
45	Increase and Relaxation of Abnormal Conduction Current in Lithium Niobate Crystals with Charged Domain Walls. Ferroelectrics, 2015, 476, 94-104.	0.6	3
46	Formation of self-assembled domain structures in single crystals of lithium tantalate with artificial dielectric layer. Ferroelectrics, 2016, 496, 92-101.	0.6	3
47	Domain kinetics during polarization reversal in 36Â° Y-cut congruent lithium niobate. IOP Conference Series: Materials Science and Engineering, 2018, 443, 012024.	0.6	3
48	Analysis of Switching Current Data during Polarization Reversal in KTP Single Crystals with Surface Dielectric Layer. Crystals, 2018, 8, 315.	2.2	3
49	Diffraction of Light on a Regular Domain Structure with Inclined Walls in MgO:LiNbO3. JETP Letters, 2019, 110, 178-182.	1.4	3
50	Polarization Reversal Process in MgO Doped Congruent Lithium Tantalate Single Crystals. Ferroelectrics, 2015, 476, 57-68.	0.6	2
51	Formation of Self-Assembled Domain Structures in MgOSLT. Ferroelectrics, 2015, 476, 76-83.	0.6	2
52	Multiple nonlinear Bragg diffraction of femtosecond laser pulses in a ${chi^{(2)}}$ photonic lattice with hexagonal domains. Laser Physics Letters, 2018, 15, 045401.	1.4	2
53	Switching current shape analysis in LBGO single crystals. IOP Conference Series: Materials Science and Engineering, 2018, 443, 012001.	0.6	2
54	Effect of ferroelectric domains on electric properties of single layer graphene. Ferroelectrics, 2019, 542, 93-101.	0.6	2

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55	Optical parametric oscillator based on the periodically poled MgO:LN crystal with 4.1ÂÎ¼m wavelength and varied pulse duration. Ferroelectrics, 2016, 496, 128-133.	0.6	1
56	Formation of self-assembled micro- and nano-domain structures in uniaxial ferroelectrics. IOP Conference Series: Materials Science and Engineering, 2017, 192, 012006.	0.6	1
57	In situ visualization of domain structure evolution during field cooling in 0.67PMN-0.33PT single crystal. IOP Conference Series: Materials Science and Engineering, 2017, 256, 012025.	0.6	1
58	Generation of the second harmonic in ridge waveguides formed in periodically poled lithium niobate. Quantum Electronics, 2018, 48, 717-719.	1.0	1
59	The bulk screening field in nonstoichiometric lithium tantalate single crystals. Ferroelectrics, 2019, 541, 30-38.	0.6	1
60	Temperature and electric field treatment of the rhombohedral PMN-PT single crystals. Ferroelectrics, 2019, 541, 66-73.	0.6	1
61	Annealing stability of the domain structure in periodically poled MgO doped lithium niobate single crystals. Ferroelectrics, 2019, 542, 45-51.	0.6	1
62	Analysis of switching current data in KTA single crystals. Ferroelectrics, 2020, 559, 1-7.	0.6	1
63	Formation of submicron stripe domain ensembles during polarization reversal in Rb doped KTP crystal covered by dielectric layer. Ferroelectrics, 2021, 574, 101-108.	0.6	1
64	The input of Barkhausen pulses to the switching current in congruent lithium niobate. Ferroelectrics, 2021, 574, 156-163.	0.6	1
65	Second harmonic generation in periodically poled MgO:LN crystal with 2 Âµm period created by e-beam irradiation. Ferroelectrics, 2021, 576, 50-54.	0.6	1
66	Observation of the Photoinduced Conductivity in a Regular Domain Structure with Tilted Walls in MgO:LiNbO3 at a Wavelength of 632.8 nm at Bragg Diffraction. JETP Letters, 2020, 112, 602-606.	1.4	1
67	Domain growth in LiNbO₃ with surface layer modified by soft proton exchange. Ferroelectrics, 2022, 592, 64-71.	0.6	1
68	Analysis of Barkhausen pulse shapes in lithium niobate single crystals. Ferroelectrics, 2022, 592, 1-11.	0.6	1
69	Periodically poled MgO doped LiNbO<inf>3</inf> and LiTaO<inf>3</inf> for coherent light frequency conversion. , 2016, , .		0
70	Linear diffraction of light waves on periodically poled domain structures in lithium niobate crystals: collinear, isotropic, and anisotropic geometries. Journal of Physics: Conference Series, 2017, 867, 012017.	0.4	0
71	The phase-field modeling of the self-organized phase growth with three-fold symmetry. IOP Conference Series: Materials Science and Engineering, 2017, 256, 012027.	0.6	0
72	Second Harmonic Generation in a PPLN High-Contrast Ridge Waveguide. , 2018, , .		0

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73	Forward domain growth in 36Â° Y-cut congruent lithium niobate. Ferroelectrics, 2019, 541, 115-122.	0.6	0
74	Periodically Poled MgO:LiNbO3, MgO:LiTaO3 and KTiOPO4 Crystals for Laser Light Frequency Conversion. , 2019, , .		0
75	Tunable LiNbO3-Based Diffraction Optical Elements for Control of Coherent Light. , 2019, , .		0
76	Interferometric measurements of graphene-based membranes for micromechanical applications. Ferroelectrics, 2020, 560, 95-101.	0.6	0
77	Domain splitting in lithium niobate with surface dielectric layer. Ferroelectrics, 2020, 559, 8-14.	0.6	0
78	Perturbations of a dielectric tensor induced by domain walls of periodic domain structures in ferroelectric crystals: contribution to the Bragg diffraction of light waves. Laser Physics, 2020, 30, 025401.	1.2	0
79	Domain merging in LaBGeO5 single crystals. Ferroelectrics, 2021, 575, 151-157.	0.6	0
80	Magnetoelastic effect in CoNi particles caused by thermal resizing of a lithium niobate crystal substrate. Ferroelectrics, 2021, 574, 65-71.	0.6	0
81	10.1063/1.5046657.1. , 2018, , .		0
82	10.1063/1.5094688.1. , 2019, , .		0
83	10.1063/1.5114885.1. , 2019, , .		0
84	10.1063/5.0008522.1. , 2020, , .		0
85	10.1063/5.0014220.1. , 2020, , .		0
86	Thermostimulated Changes in the Switching Field of Planar CoNi Microparticles Formed on a Surface of Single-Crystal Lithium Niobate. Physics of the Solid State, 2021, 63, 1337-1342.	0.6	0
87	Formation of broad domain boundary during dot ion beam irradiation in SBN:Ni single crystals. Ferroelectrics, 2022, 592, 72-82.	0.6	0
88	Domain structure evolution in calcium orthovanadate crystal induced by IR laser irradiation. Ferroelectrics, 2022, 592, 83-89.	0.6	0