Konstantin A Vorotilov

List of Publications by Year
in descending order

129	1,290	430874	501196
papers	citations	18 h-index	28 g-index

130	130	130	812
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Sol-gel TiO2 films on silicon substrates. Thin Solid Films, 1992, 207, 180-184.	1.8	100
2	Effect of annealing conditions on alkoxy-derived PZT thin films. Microstructural and CV study. Integrated Ferroelectrics, 1993, 3, 33-49.	0.7	52
3	Spin coating process of sol-gel silicate films deposition: Effect of spin speed and processing temperature. Journal of Sol-Gel Science and Technology, 1995, 5, 173-183.	2.4	49
4	Title is missing!. Journal of Sol-Gel Science and Technology, 1999, 16, 109-118.	2.4	48
5	Ferroelectric memory. Physics of the Solid State, 2012, 54, 894-899.	0.6	45
6	Sol-gel silicon dioxide films. Thin Solid Films, 1992, 209, 188-194.	1.8	34
7	Leakage currents in ferroelectric thin films. Phase Transitions, 2013, 86, 1141-1151.	1.3	31
8	Crystallization behaviour of PZT in multilayer heterostructures. Phase Transitions, 2013, 86, 1152-1165.	1.3	29
9	Role of precursors in the formation of lead zirconate titanate thin films. Inorganic Materials, 2014, 50, 612-616.	0.8	28
10	Microelectronic applications of ferroelectric films. Integrated Ferroelectrics, 1993, 3, 59-68.	0.7	25
11	BaTiO3 films on silicon wafers from metal alkoxides. Ferroelectrics, 1991, 123, 261-271.	0.6	23
12	Evaluation of Mechanical Properties of Porous OSG Films by PFQNM AFM and Benchmarking with Traditional Instrumentation. Langmuir, 2020, 36, 9377-9387.	3.5	23
13	Alkoxy-derived Y2O3-stabilized ZrO2 thin films. Thin Solid Films, 1994, 249, 1-5.	1.8	22
14	Effect of Bridging and Terminal Alkyl Groups on Structural and Mechanical Properties of Porous Organosilicate Films. ECS Journal of Solid State Science and Technology, 2017, 6, N182-N188.	1.8	22
15	Porous silicon-based ferroelectric nanostructures. Journal of Experimental and Theoretical Physics, 2002, 95, 502-504.	0.9	21
16	Local probing of the polarization state in thin Pb(ZrTi)O3 films during polarization reversal. Applied Physics Letters, 2001, 78, 796-798.	3.3	20
17	Effect of terminal methyl groups concentration on properties of organosilicate glass low dielectric constant films. Japanese Journal of Applied Physics, 2018, 57, 07MC01.	1.5	20
18	Sol-Gel Derived Barium-Strontium Titanate Films. Journal of Sol-Gel Science and Technology, 1998, 13, 877-883.	2.4	19

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19	Growth of CdZnTe single crystals for radiation detectors. Journal of Crystal Growth, 1999, 197, 666-669.	1.5	19
20	Effect of Lead Content on Microstructure of Sol-Gel PZT Structures. Ferroelectrics, 2012, 433, 146-157.	0.6	19
21	Structure, properties and applications of phenyl-modified silicate films. Thin Solid Films, 1996, 288, 57-63.	1.8	18
22	Effect of the synthesis conditions on the properties of polycrystalline films of lead zirconate titanate of nonstoichiometric composition. Glass Physics and Chemistry, 2016, 42, 295-301.	0.7	18
23	Optical second harmonic generation studies of thin ferroelectric ceramic films. Ferroelectrics, 1997, 190, 143-148.	0.6	17
24	Alkoxy-derived ferroelectric PZT films: The effect of lead acetate dehydration techniques and lead content in the electrochemically prepared solutions on the properties of the films. Integrated Ferroelectrics, 1998, 19, 193-209.	0.7	17
25	Terahertz dielectric spectra of (Ba,Sr)TiO3 thin films. Physics of the Solid State, 2009, 51, 1351-1355.	0.6	17
26	Effects of Methyl Terminal and Carbon Bridging Groups Ratio on Critical Properties of Porous Organosilicate Glass Films. Materials, 2020, 13, 4484.	2.9	17
27	Ferroelectric memory: state-of-the-art manufacturing and research. Russian Technological Journal, 2020, 8, 44-67.	1.0	17
28	Ferroelectric capacitors for integrated circuits. Microelectronic Engineering, 1995, 29, 41-44.	2.4	16
29	Optical second-harmonic generation studies of thin lead-zirconate-titanate ferroelectric films. Ferroelectrics, 1996, 186, 215-218.	0.6	15
30	Ferroelectric Thin Films of Bismuth Strontium Tantalate Prepared by Alkoxide Route. Journal of Sol-Gel Science and Technology, 1998, 13, 889-893.	2.4	15
31	Leakage currents in thin ferroelectric films. Physics of the Solid State, 2012, 54, 911-914.	0.6	15
32	Effect of water content on the structural properties of porous methyl-modified silicate films. Journal of Sol-Gel Science and Technology, 2019, 92, 273-281.	2.4	15
33	ORMOSIL films: Properties and microelectronic applications. Journal of Sol-Gel Science and Technology, 1997, 8, 581-584.	2.4	14
34	Specific features of the formation of the crystal structure of lead zirconate titanate in the Si-SiO2-Ti(TiO2)-Pt-Pb(Zr x Ti1 â˜' x)O3 systems. Physics of the Solid State, 2009, 51, 1337-1340.	0.6	13
35	Anodic dissolution of metals in methoxyethanolâ€"a way to new precursors for sol-gel technology. Integrated Ferroelectrics, 1994, 4, 275-279.	0.7	12
36	Thin ORMOSIL Films with Different Organics. Journal of Sol-Gel Science and Technology, 1998, 13, 467-472.	2.4	12

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37	Effect of Lead Content on the Microstructure and Electrical Properties of Sol-Gel PZT Thin Films. Ferroelectrics, 2002, 271, 51-56.	0.6	12
38	Crystallization of PZT in Porous Alumina Membrane Channels. Ferroelectrics, 2006, 336, 247-254.	0.6	12
39	Crystallization of lead zirconate titanate films by laser annealing. Physics of the Solid State, 2012, 54, 999-1001.	0.6	12
40	Estimation of steady-state leakage current in polycrystalline PZT thin films. AIP Advances, 2016, 6, 095025.	1.3	12
41	Unexpected behavior of transient current in thin PZT films caused by grain-boundary conduction. Journal of Applied Physics, 2017, 121, .	2.5	12
42	Dead layer thickness estimation at the ferroelectric film-metal interface in PZT. Applied Physics Letters, 2019, 114, .	3.3	12
43	Critical properties and charge transport in ethylene bridged organosilica low-Î¤ dielectrics. Journal of Applied Physics, 2020, 127, .	2.5	12
44	Effect of terminal methyl group concentration on critical properties and plasma resistance of organosilicate low-k dielectrics. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, .	2.1	12
45	Charge transport mechanism in periodic mesoporous organosilica low-k dielectric. Applied Physics Letters, 2019, 115, 082904.	3.3	11
46	A detailed ellipsometric porosimetry and positron annihilation spectroscopy study of porous organosilicate-glass films with various ratios of methyl terminal and ethylene bridging groups. Microporous and Mesoporous Materials, 2020, 306, 110434.	4.4	11
47	Sol-gel films for integrated circuits. Journal of Sol-Gel Science and Technology, 1994, 2, 563-567.	2.4	10
48	Negative differential conductivity in thin ferroelectric films. Applied Physics Letters, 2014, 105, 182904.	3.3	10
49	Simulation of Negative Differential Resistivity in Thin Ferroelectric Films. Ferroelectrics, 2014, 465, 28-35.	0.6	10
50	Effect of methyltrimethoxysilane hydrolysis and condensation conditions on the properties of thin polymethylsilsesquioxane films. Inorganic Materials, 2016, 52, 625-629.	0.8	10
51	Effect of the C-bridge on UV properties of organosilicate films. Thin Solid Films, 2019, 685, 329-334.	1.8	10
52	Leakage currents in porous PZT films. Ferroelectrics, 2016, 503, 77-84.	0.6	9
53	Ferroelectrics Templated in Nanoporous Silicon Membranes. Ferroelectrics, 2003, 286, 205-211.	0.6	8
54	Microstructure of PZT Capacitor Structures. Ferroelectrics, 2003, 286, 311-320.	0.6	8

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55	Effect of Lanthanum Doping on Leakage Currents of Sol-Gel PZT Thin Films. Ferroelectrics, 2014, 465, 54-59.	0.6	8
56	Porous PZT Films Prepared by PVP Assisted Sol-Gel Process. Ferroelectrics, 2015, 484, 43-48.	0.6	8
57	Formation and properties of porous films of lead zirconate titanate. Physics of the Solid State, 2015, 57, 499-502.	0.6	8
58	TdP213. Ferroelectric thin films for microelectronic applications. Ferroelectrics, 1992, 134, 365-376.	0.6	7
59	Microstructure and Dielectric Properties of (Ba 0.7 Sr 0.3)TiO 3 Thin Films. Ferroelectrics, 2003, 286, 261-265.	0.6	7
60	Influence of Crystallization Process on Structural State of CSD BST Thin Films. Ferroelectrics, 2006, 335, 13-21.	0.6	7
61	Electrodynamic properties of lead Zirconate-Titanate thin films in the terahertz frequency range. Physics of the Solid State, 2014, 56, 2206-2212.	0.6	7
62	Electrodynamic properties of porous PZT-Pt films at terahertz frequency range. Physica Status Solidi C: Current Topics in Solid State Physics, 2016, 14, 1600211.	0.8	7
63	Effect of seed layer with low lead content on electrical properties of PZT thin films. Journal of Materials Research, 2017, 32, 1618-1627.	2.6	7
64	Depolarization Currents in Thin Ferroelectric Films. Ferroelectrics, 2012, 439, 56-61.	0.6	6
65	Nonlinear-optical and micro-Raman diagnostics of thin films and nanostructures of ABO3 ferroelectrics. Physics of the Solid State, 2006, 48, 1210-1213.	0.6	5
66	Effect of the Brij 30 porogen on the properties of solâ€“gel derived thin polymethylsilsesquioxane films. Inorganic Materials, 2016, 52, 968-972.	0.8	5
67	Effect of the Crystal Structure on the Electrical Properties of Thin-Film PZT Structures. Physics of the Solid State, 2018, 60, 553-558.	0.6	5
68	Ion beam etching of dense and porous PZT films. Ferroelectrics, 2019, 544, 75-81.	0.6	5
69	Dielectric contribution of the IR absorption bands of porous organosilicate glass thin films on a platinum sublayer. Journal Physics D: Applied Physics, 2021, 54, 215304.	2.8	5
70	Microstructure analysis of porous lead zirconateâ€“titanate films. Journal of the American Ceramic Society, 2022, 105, 639.	3.8	5
71	ORMOSIL Films: Properties and Microelectronic Applications. Journal of Sol-Gel Science and Technology, 1997, 8, 581-584.	2.4	4
72	Laser Annealing of Thin-Film Ferroelectric Heterostructures. Journal of Russian Laser Research, 2004, 25, 234-238.	0.6	4

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73	Electrophysical Properties of Integrated Ferroelectric Capacitors Based on Sol-Gel PZT Films. Ferroelectrics, 2015, 484, 32-42.	0.6	4
74	The Mechanisms of Absorption of Terahertz and Infrared Radiation in PZT Films. Physics of the Solid State, 2018, 60, 1226-1234.	0.6	4
75	Properties of Solâ€“Gel Derived Thin Organoalkylenesiloxane Films. Inorganic Materials, 2018, 54, 405-411.	0.8	4
76	Structural Features of PLZT Films. Crystallography Reports, 2018, 63, 646-655.	0.6	4
77	Nonlinear optical and electrostatic force microscopy for ferroelectric polarization imaging. Applied Physics B: Lasers and Optics, 2002, 74, 783-788.	2.2	3
78	Effect of mechanical stresses on the dielectric response of PZT ferroelectric thin films. Physics of the Solid State, 2006, 48, 1179-1181.	0.6	3
79	Electron microscopy of the barium strontium titanate film structure on Pt-Ti-SiO2-Si substrates after laser annealing. Physics of the Solid State, 2009, 51, 1482-1484.	0.6	3
80	Peculiarities of Electrical Characteristics of Ferroelectric Memory Elements Based on PZT-Films. Russian Physics Journal, 2016, 58, 1301-1305.	0.4	3
81	Determination of the Steady State Leakage Current in Structures with Ferroelectric Ceramic Films. Physics of the Solid State, 2018, 60, 433-436.	0.6	3
82	Layer Crystallization in PZT/LNO/Si Heterostructures. Physics of the Solid State, 2019, 61, 2464-2467.	0.6	3
83	Optical characteristics of LaNiO3 thin films in the terahertzâ€“infrared frequency range. Journal of Applied Physics, 2022, 131, 025305.	2.5	3
84	Comparison of Characteristics of Thin PZT Films on Si-on-Sapphire and Si Substrates. Physics of the Solid State, 2021, 63, 1145-1152.	0.6	3
85	In-Situ Imaging of a Light-Induced Modification Process in Organo-Silica Films via Time-Domain Brillouin Scattering. Nanomaterials, 2022, 12, 1600.	4.1	3
86	Modification of Porous Ultralow-k Film by Vacuum Ultraviolet Emission. ACS Applied Electronic Materials, 2022, 4, 2760-2776.	4.3	3
87	Effect of processing temperature during spin-on application on the properties of sol-gel silica films. Journal of Sol-Gel Science and Technology, 1994, 2, 559-562.	2.4	2
88	Title is missing!. Russian Microelectronics, 2001, 30, 175-178.	0.5	2
89	Structure of (Ba0.7Sr0.3)TiO3 films prepared by chemical solution deposition on sapphire substrates. Physics of the Solid State, 2006, 48, 1208-1209.	0.6	2
90	Laser annealing of ferroelectric thin films. Proceedings of SPIE, 2007, , .	0.8	2

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91	CORRELATION OF GRAIN AND DOMAIN STRUCTURES IN PZT THIN FILMS. Integrated Ferroelectrics, 2009, 106, 70-80.	0.7	2
92	Effect of Sol-Gel PZT Film Thickness on the Hysteresis Properties. Ferroelectrics, 2012, 439, 74-79.	0.6	2
93	Structure and phase composition of BiFeO3 : La films synthesized by chemical deposition from solutions. Physics of the Solid State, 2012, 54, 997-998.	0.6	2
94	Terahertz-infrared electrodynamics of lead zirconate-titanate films on a platinum sublayer. Physics of the Solid State, 2015, 57, 1155-1159.	0.6	2
95	Formation of PZT Structures on Silicon. Bulletin of the Russian Academy of Sciences: Physics, 2018, 82, 341-345.	0.6	2
96	Structural Features and Mutual Influence of the Layers in PZTâ€“LNOâ€“SiOxâ€“Si and PZTâ€“LNOâ€“Si Compositions. Crystallography Reports, 2019, 64, 961-967.	0.6	2
97	Terahertz and Infrared Spectroscopy of Dense and Porous Organosilicate Glass Thin Films. Doklady Physics, 2020, 65, 51-56.	0.7	2
98	Charge Transport Mechanism and Trap Origin in Methylâ€Terminated Organosilicate Glass Lowâ€î° Dielectrics. Physica Status Solidi (A) Applications and Materials Science, 2021, 218, 2000654.	1.8	2
99	Chemical and phase inhomogeneity in LaNiO₃ electrodes prepared by chemical solution deposition. Ferroelectrics, 2021, 574, 29-36.	0.6	2
100	Mechanical properties of nanoporous organo silicate glass films for the use in integrated circuits interconnects. AIP Conference Proceedings, 2020, , .	0.4	2
101	Effect of surface hydrophobisation on the properties of a microporous phenylene-bridged organosilicate film. Journal of Non-Crystalline Solids, 2022, 576, 121258.	3.1	2
102	Effect of metal electrodes on the steady-state leakage current in PZT thin film capacitors. Journal of Electroceramics, 2022, 49, 15-21.	2.0	2
103	Electric Non-Linearity in Ferroelectric Films of the BaxSr1 â^'xTiO3Type. Ferroelectrics, 2004, 307, 167-170.	0.6	1
104	Structure of (Ba0.7Sr0.3)TiO3 films prepared by chemical solution deposition during crystallization on a sublayer. Physics of the Solid State, 2006, 48, 1205-1207.	0.6	1
105	Structure of Ba0.7Sr0.3TiO3 films grown by chemical solution deposition on polycor substrates. Journal of Surface Investigation, 2008, 2, 677-682.	0.5	1
106	Electron microscopy of barium strontium titanate nanostructures in the aluminum oxide matrix. Physics of the Solid State, 2009, 51, 1485-1488.	0.6	1
107	Electrophysical properties of lead zirconate titanate films doped with lanthanum. Russian Microelectronics, 2014, 43, 438-444.	0.5	1
108	Effect of spontaneous polarization change on current-voltage characteristics of thin ferroelectric films. Physics of the Solid State, 2015, 57, 476-479.	0.6	1

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109	Detection of idden defects in low-k dielectrics by atomic force microscopy. Journal of Physics: Conference Series, 2019, 1327, 012011.	0.4	1
110	Once again on the hysteresis loop: leakage current consideration. Ferroelectrics, 2021, 573, 1-8.	0.6	1
111	Dielectric permittivity of organosilicate glass thin films on a sapphire substrate determined using time-domain THz and Fourier IR spectroscopy. Journal Physics D: Applied Physics, 0, , .	2.8	1
112	Fundamental Properties and Some Applications of Sol-gel Ceramic Thin Films. , 1995, , 427-437.		1
113	Charge Transport Mechanism in a PECVD Deposited Low-k SiOCH Dielectric. Journal of Electronic Materials, 2022, 51, 2521-2527.	2.2	1
114	Effect of H atoms and UV wideband radiation on cured low-k OSG films. Journal Physics D: Applied Physics, 2022, 55, 255206.	2.8	1
115	Integrated ferroelectrics: Some results and considerations. Ferroelectrics, 1995, 167, 177-180.	0.6	0
116	Sol-gel processing of bismuth strontium tantalate thin films. European Physical Journal Special Topics, 1998, 08, Pr9-83-Pr9-86.	0.2	0
117	Effects of lead concentration on dielectric properties of ferroelectric Ni/PZT/Pt thin films at low and infralow frequencies. Ferroelectrics, 2001, 258, 277-284.	0.6	0
118	Title is missing!. Russian Microelectronics, 2001, 30, 371-380.	0.5	0
119	Domain contribution to the low and infralow frequency dielectric response of ferroelectric thin PZT films prepared by the sol-gel method. Crystallography Reports, 2004, 49, 137-142.	0.6	0
120	Investigation of the low-and infralow-frequency dielectric response of Ba0.7Sr0.3TiO3 thin films. Physics of the Solid State, 2006, 48, 1177-1178.	0.6	0
121	Giant Self-Polarization in FeRAM Element Based on Sol-Gel PZT Films. Materials Research Society Symposia Proceedings, 2015, 1729, 87-92.	0.1	0
122	Discharge currents in dense and porous PZT films. Ferroelectrics, 2019, 544, 82-87.	0.6	0
123	Conductive AFM study of the local current in thin ferroelectric sol-gel PZT films. Journal of Physics: Conference Series, 2019, 1400, 077002.	0.4	0
124	Atomic force microscopy of porous ferroelectric PZT films. Journal of Physics: Conference Series, 2020, 1697, 012090.	0.4	0
125	Effect of Substrate on PZT Films Properties. , 2021, , .		0
126	Mechanical Properties of Low-k Dielectric Deposited on Subtractively Patterned Cu Lines for Advanced Interconnects. , 2021, , .		0

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127	Formation Mechanisms for Hetero-Phase Ferroelectric Films of Lead Zirconate Titanate. Journal of the Russian Universities Radioelectronics, 2018, , 26-36.	0.2	0
128	Effects of vacuum-plasma etching on the electrical properties of thin ferroelectric PZT films. , 2019, , .		0
129	Methylated porous low-k materials: critical properties and plasma resistance. , 2022, , .		0