

Nikolay A Pertsev

List of Publications by Year in descending order

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80
papers

5,884
citations

147566

31
h-index

71532

76
g-index

80
all docs

80
docs citations

80
times ranked

4020
citing authors

#	ARTICLE	IF	CITATIONS
19	<i>In situ</i> hard x-ray photoemission spectroscopy of barrier-height control at metal/PMN-PT interfaces. <i>Physical Review B</i> , 2016, 93, .	1.1	13
20	Magnetization dynamics and spin pumping induced by standing elastic waves. <i>Physical Review B</i> , 2016, 94, .	1.1	26
21	Electric-field switching of perpendicularly magnetized multilayers. <i>NPG Asia Materials</i> , 2015, 7, e198-e198.	3.8	65
22	Converse magnetoelectric effect via strain-driven magnetization reorientations in ultrathin ferromagnetic films on ferroelectric substrates. <i>Physical Review B</i> , 2015, 92, .	1.1	11
23	Low-temperature dynamics of ferroelectric domains in PbZr _{0.3} Ti _{0.7} O ₃ epitaxial thin films studied by piezoresponse force microscopy. <i>Applied Physics Letters</i> , 2015, 107, .	1.5	6
24	Blockage of domain growth by nanoscale heterogeneities in a relaxor ferroelectric Sr _{0.61} Ba _{0.39} Nb ₂ O ₆ . <i>Journal of Applied Physics</i> , 2015, 117, 034101.	1.1	8
25	Ferroelectric-ferromagnetic multilayers: A magnetoelectric heterostructure with high output charge signal. <i>Journal of Applied Physics</i> , 2014, 116, .	1.1	8
26	Low-temperature evolution of local polarization properties of PbZr _{0.65} Ti _{0.35} O ₃ thin films probed by piezoresponse force microscopy. <i>Applied Physics Letters</i> , 2014, 104, .	1.5	10
27	Giant electrode effect on tunnelling electroresistance in ferroelectric tunnel junctions. <i>Nature Communications</i> , 2014, 5, 5414.	5.8	123
28	Dynamic converse magnetoelectric effect in ferromagnetic nanostructures with electric-field-dependent interfacial anisotropy. <i>Physical Review B</i> , 2014, 90, .	1.1	9
29	Polarization-controlled spin reorientation transition and resistive switching in ferromagnetic-ferroelectric nanostructures and tunnel junctions. <i>Physical Review B</i> , 2014, 90, .	1.1	5
30	Origin of easy magnetization switching in magnetic tunnel junctions with voltage-controlled interfacial anisotropy. <i>Scientific Reports</i> , 2013, 3, 2757.	1.6	29
31	Subsurface nanodomains with in-plane polarization in uniaxial ferroelectrics via scanning force microscopy. <i>Physical Review B</i> , 2013, 88, .	1.1	25
32	Strain-mediated electric-field control of multiferroic domain structures in ferromagnetic films. <i>Applied Physics Letters</i> , 2013, 102, .	1.5	13
33	Giant direct magnetoelectric effect in strained multiferroic heterostructures. <i>Physical Review B</i> , 2012, 85, .	1.1	18
34	Giant magnetocapacitance of strained ferroelectric-ferromagnetic hybrids. <i>Physical Review B</i> , 2012, 85, .	1.1	20
35	Magnetoresistive Memory with Ultralow Critical Current for Magnetization Switching. <i>Advanced Functional Materials</i> , 2012, 22, 4696-4703.	7.8	27
36	Quasi-one-dimensional domain walls in ferroelectric ceramics: Evidence from domain dynamics and wall roughness measurements. <i>Journal of Applied Physics</i> , 2011, 110, .	1.1	33

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37	Comment on "Theory of Giant Electromechanical Response from Ferroelectric Bilayers with Polydomain Structures due to Interlayer and Interdomain Coupling" Physical Review Letters, 2011, 107, 139701; author reply 139702.	2.9	1
38	Ferromagnetic resonance in epitaxial films: Effects of lattice strains and voltage control via ferroelectric substrate. Physical Review B, 2011, 84, .	1.1	16
39	Interfacial nanolayers and permittivity of ferroelectric superlattices. Journal of Applied Physics, 2011, 109, 126101.	1.1	10
40	Free-standing ferroelectric multilayers: Crossover from thin-film to bulk behavior. Journal of Applied Physics, 2011, 110, .	1.1	7
41	Crossing an Interface: Ferroelectric Control of Tunnel Currents in Magnetic Complex Oxide Heterostructures. Advanced Functional Materials, 2010, 20, 2436-2441.	7.8	120
42	Thermodynamic theory of strain-mediated direct magnetoelectric effect in multiferroic film-substrate hybrids. Nanotechnology, 2010, 21, 265701.	1.3	25
43	Enhancing permittivity of ferroelectric superlattices via composition tuning. Physical Review B, 2010, 81, .	1.1	20
44	Resistive switching via the converse magnetoelectric effect in ferromagnetic multilayers on ferroelectric substrates. Nanotechnology, 2010, 21, 475202.	1.3	70
45	Magnetic tunnel junction on a ferroelectric substrate. Applied Physics Letters, 2009, 95, .	1.5	70
46	Strong enhancement of the direct magnetoelectric effect in strained ferroelectric-ferromagnetic thin-film heterostructures. Physical Review B, 2009, 80, .	1.1	32
47	Dynamics of ferroelectric nanodomains in BaTiO ₃ epitaxial thin films via piezoresponse force microscopy. Nanotechnology, 2008, 19, 375703.	1.3	79
48	Giant magnetoelectric effect via strain-induced spin reorientation transitions in ferromagnetic films. Physical Review B, 2008, 78, .	1.1	93
49	Strain sensitivity of polarization in perovskite ferroelectrics. Applied Physics Letters, 2008, 93, 122903.	1.5	30
50	Wedgelike ultrathin epitaxial BaTiO ₃ films for studies of scaling effects in ferroelectrics. Applied Physics Letters, 2008, 93, 072902.	1.5	31
51	Phase diagrams of single-domain ferroelectric-dielectric superlattices. Applied Physics Letters, 2007, 90, 252910.	1.5	35
52	Elastic Stabilization of a Single-Domain Ferroelectric State in Nanoscale Capacitors and Tunnel Junctions. Physical Review Letters, 2007, 98, 257603.	2.9	71
53	Thickness dependence of intrinsic dielectric response and apparent interfacial capacitance in ferroelectric thin films. Journal of Applied Physics, 2007, 101, 074102.	1.1	25
54	Polarization and lattice strains in epitaxial BaTiO ₃ films grown by high-pressure sputtering. Journal of Applied Physics, 2007, 101, 114106.	1.1	58

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55	Polarization states of polydomain epitaxial $\text{Pb}(\text{Zr}_{1-x}\text{Ti}_x)\text{O}_3$ thin films and their dielectric properties. <i>Physical Review B</i> , 2006, 73, .	1.1	68
56	Impact of the top-electrode material on the permittivity of single-crystalline $\text{Ba}_{0.7}\text{Sr}_{0.3}\text{TiO}_3$ thin films. <i>Applied Physics Letters</i> , 2005, 86, 202908.	1.5	41
57	Effect of anisotropic in-plane strains on phase states and dielectric properties of epitaxial ferroelectric thin films. <i>Applied Physics Letters</i> , 2005, 86, 052903.	1.5	78
58	Theoretical current-voltage characteristics of ferroelectric tunnel junctions. <i>Physical Review B</i> , 2005, 72, .	1.1	369
59	Nonlinear local piezoelectric deformation in ferroelectric thin films studied by scanning force microscopy. <i>Journal of Applied Physics</i> , 2005, 97, 104105.	1.1	64
60	Phase states of nanocrystalline ferroelectric ceramics and their dielectric properties. <i>Journal of Applied Physics</i> , 2005, 97, 114315.	1.1	28
61	Resistive switching in metal-ferroelectric-metal junctions. <i>Applied Physics Letters</i> , 2003, 83, 4595-4597.	1.5	270
62	Phase diagrams and physical properties of single-domain epitaxial $\text{Pb}(\text{Zr}_{1-x}\text{Ti}_x)\text{O}_3$ thin films. <i>Physical Review B</i> , 2003, 67, .	1.1	282
63	Coercive field of ultrathin $\text{Pb}(\text{Zr}_{0.52}\text{Ti}_{0.48})\text{O}_3$ epitaxial films. <i>Applied Physics Letters</i> , 2003, 83, 3356-3358.	1.5	116
64	Sharp ferroelectric phase transition in strained single-crystalline $\text{SrRuO}_3/\text{Ba}_{0.7}\text{Sr}_{0.3}\text{TiO}_3/\text{SrRuO}_3$ capacitors. <i>Applied Physics Letters</i> , 2003, 83, 5011-5013.	1.5	38
65	Piezoelectric nonlinearity of $\text{Pb}(\text{Zr},\text{Ti})\text{O}_3$ thin films probed by scanning force microscopy. <i>Applied Physics Letters</i> , 2002, 81, 3025-3027.	1.5	19
66	Effect of external stress on ferroelectricity in epitaxial thin films. <i>Physical Review B</i> , 2002, 66, .	1.1	83
67	Ultrathin epitaxial ferroelectric films grown on compressive substrates: Competition between the surface and strain effects. <i>Journal of Applied Physics</i> , 2002, 91, 2247-2254.	1.1	135
68	Depolarizing-field-mediated 180° switching in ferroelectric thin films with 90° domains. <i>Applied Physics Letters</i> , 2002, 80, 1424-1426.	1.5	101
69	Thermodynamic theory of epitaxial ferroelectric thin films with dense domain structures. <i>Physical Review B</i> , 2001, 64, .	1.1	227
70	Elastic interaction between 90° domain walls and misfit dislocations in epitaxial ferroelectric thin films. <i>Integrated Ferroelectrics</i> , 2001, 32, 343-354.	0.3	7
71	Effects of domain formation on the dielectric properties of ferroelectric thin films. <i>Integrated Ferroelectrics</i> , 2001, 32, 235-249.	0.3	7
72	Effect of finite domain-wall width on the domain structures of epitaxial ferroelectric and ferroelastic thin films. <i>Journal of Applied Physics</i> , 2001, 89, 1355-1366.	1.1	23

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73	In-plane polarization states and their instabilities in polydomain epitaxial ferroelectric thin films. Applied Physics Letters, 2001, 78, 530-532.	1.5	22
74	Thermodynamics of pseudoproper and improper ferroelastic inclusions and polycrystals: Effect of elastic clamping on phase transitions. Physical Review B, 2000, 61, 902-908.	1.1	33
75	Polarization Instability in Polydomain Ferroelectric Epitaxial Thin Films and the Formation of Heterophase Structures. Physical Review Letters, 2000, 84, 3722-3725.	2.9	134
76	Phase transitions and strain-induced ferroelectricity in SrTiO ₃ epitaxial thin films. Physical Review B, 2000, 61, R825-R829.	1.1	475
77	Equilibrium states and phase transitions in epitaxial ferroelectric thin films. Ferroelectrics, 1999, 223, 79-90.	0.3	96
78	Ferroelectric thin films grown on tensile substrates: Renormalization of the Curie-Weiss law and apparent absence of ferroelectricity. Journal of Applied Physics, 1999, 85, 1698-1701.	1.1	143
79	Effect of Mechanical Boundary Conditions on Phase Diagrams of Epitaxial Ferroelectric Thin Films. Physical Review Letters, 1998, 80, 1988-1991.	2.9	1,518
80	Energetics and geometry of 90° domain structures in epitaxial ferroelectric and ferroelastic films. Journal of Applied Physics, 1995, 78, 6170-6180.	1.1	137