

Abhijit Pramanick

List of Publications by Year in descending order

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56
papers

1,456
citations

430874

18
h-index

330143

37
g-index

59
all docs

59
docs citations

59
times ranked

1921
citing authors

#	ARTICLE	IF	CITATIONS
1	A Local Atomic Mechanism for Monoclinic-Tetragonal Phase Boundary Creation in Li-Doped Na _{0.5} K _{0.5} NbO ₃ Ferroelectric Solid Solution. Inorganic Chemistry, 2022, 61, 4335-4349.	4.0	9
2	Atomic structural mechanism for ferroelectric-antiferroelectric transformation in perovskite <math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>NaNbO</mml:mi><mml:mn>3</mml:mn></mml:msub></math> Physical Review B, 2022, 105, .	3.2	8
3	Perspective on emerging views on microscopic origin of relaxor behavior. Journal of Materials Research, 2021, 36, 1015-1036.	2.6	17
4	High Energy Efficiency and Thermal Stability of BaTiO ₃ â€BiScO ₃ Thin Films Based on Defects Engineering. ACS Applied Electronic Materials, 2021, 3, 1097-1106.	4.3	9
5	A Structural Study of 0.06LiNbO ₃ -0.94K _{0.5} Na _{0.5} NbO ₃ from Neutron Total Scattering Analysis. Crystals, 2021, 11, 395.	2.2	1
6	Local structural mechanism for phase transition and ferroelectric polarization in the mixed oxide <math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>K</mml:mi><mml:mrow><mml:mn>0.5</mml:mn></mml:mrow></mml:msub><mml:mi>Na</mml:mi></math> Physical Review B, 2021, 103.	3.2	11
7	Dynamical origins of weakly coupled relaxor behavior in Sn-doped <math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mo>(</mml:mo><mml:mrow><mml:mi>Ba</mml:mi></mml:mrow><mml:mi>O</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:mtext>â€ </mml:mtext><mml:mi>BiSc</mml:mi></math> Physical Review B, 2021, 103.	3.2	7
8	Critical Effect of Filmâ€Electrode Interface on Enhanced Energy Storage Performance of BaTiO ₃ â€BiScO ₃ Ferroelectric Thin Films. ACS Applied Electronic Materials, 2021, 3, 4726-4733.	4.3	5
9	Point defect induced incommensurate dipole moments in the <math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>K</mml:mi><mml:msub><mml:mi>Ca</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mi>Mn</mml:mi></math> Dion-Jacobson layered perovskite. Physical Review B, 2021, 104, .	3.2	1
10	Large electromechanical strain and unconventional domain switching near phase convergence in a Pb-free ferroelectric. Communications Physics, 2020, 3, .	5.3	14
11	Unraveling magneto-structural coupling of Ni ₂ MnGa alloy under the application of stress and magnetic field using <i>in situ</i> polarized neutron diffraction. Applied Physics Letters, 2020, 117, .	3.3	3
12	Enhanced dielectric permittivity and relaxor behavior in thermally annealed P(VDF-TrFE) copolymer films. Applied Physics Letters, 2020, 117, .	3.3	4
13	Relaxor behavior and electrothermal properties of Sn- and Nb-modified (Ba,Ca)TiO ₃ Pb-free ferroelectric. Journal of Materials Research, 2020, 35, 1017-1027.	2.6	8
14	High energy storage efficiency and thermal stability of Aâ€site deficient and 110â€textured BaTiO ₃ â€BiScO ₃ thin films. Journal of the American Ceramic Society, 2020, 103, 3168-3177.	3.8	13
15	Oxygen octahedral tilt ordering in (Na _{1/2} Bi _{1/2})TiO ₃ ferroelectric thin films. Applied Physics Letters, 2020, 116, .	3.3	2
16	Effect of Aâ€site substitutions on energy storage properties of BaTiO ₃ â€BiScO ₃ weakly coupled relaxor ferroelectrics. Journal of the American Ceramic Society, 2019, 102, 5919-5933.	3.8	36
17	Self-healable electroluminescent devices. Light: Science and Applications, 2018, 7, 102.	16.6	71
18	Polarization Mechanisms in P(VDFâ€TrFE) Ferroelectric Thin Films. Physica Status Solidi - Rapid Research Letters, 2018, 12, 1800340.	2.4	4

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19	Stabilization of Polar Nanoregions in Pb-free Ferroelectrics. <i>Physical Review Letters</i> , 2018, 120, 207603.	7.8	46
20	Origin of dielectric relaxor behavior in PVDF-based copolymer and terpolymer films. <i>AIP Advances</i> , 2018, 8, .	1.3	15
21	Characterization of Pb-Free KNbO ₃ - and (Na,Bi)TiO ₃ -Based Piezoelectric Single-Crystals Using X-ray and Neutron Diffraction. <i>Crystals</i> , 2018, 8, 49.	2.2	1
22	Soft phonon mode dynamics in Aurivillius-type structures. <i>Physical Review B</i> , 2017, 96, .	3.2	17
23	Ferroelectric to paraelectric phase transition mechanism in poled PVDF-TrFE copolymer films. <i>Physical Review B</i> , 2017, 96, .	3.2	14
24	Real-space phase field investigation of evolving magnetic domains and twin structures in a ferromagnetic shape memory alloy. <i>Journal of Applied Physics</i> , 2016, 120, .	2.5	14
25	High-resolution 2-D Bragg diffraction reveal heterogeneous domain transformation behavior in a bulk relaxor ferroelectric. <i>Applied Physics Letters</i> , 2016, 109, 092907.	3.3	1
26	Ferroelectric Materials: Nanoscale Atomic Displacements Ordering for Enhanced Piezoelectric Properties in Lead-Free ABO ₃ Ferroelectrics (<i>Adv. Mater.</i> 29/2015). <i>Advanced Materials</i> , 2015, 27, 4329-4329.	21.0	0
27	Direct <i>in situ</i> measurement of coupled magnetostructural evolution in a ferromagnetic shape memory alloy and its theoretical modeling. <i>Physical Review B</i> , 2015, 92, .	3.2	8
28	Microdomain dynamics in single-crystal $BaTiO_3$ during paraelectric-ferroelectric phase transition measured with time-of-flight neutron scattering. <i>Physical Review B</i> , 2015, 92, .	3.2	32
29	Effects of configurational changes on molecular dynamics in polyvinylidene fluoride and poly(vinylidene fluoride-trifluoroethylene) ferroelectric polymers. <i>Applied Physics Letters</i> , 2015, 107, .	3.3	3
30	Nanoscale Atomic Displacements Ordering for Enhanced Piezoelectric Properties in Lead-Free ABO ₃ Ferroelectrics. <i>Advanced Materials</i> , 2015, 27, 4330-4335.	21.0	8
31	Kinetics of Magnetoelastic Twin-Boundary Motion in Ferromagnetic Shape-Memory Alloys. <i>Physical Review Letters</i> , 2014, 112, .	7.8	13
32	Effect of poling on nanodomains and nanoscale structure in A-site disordered lead-free piezoelectric Na _{0.5} Bi _{0.5} TiO ₃ BaTiO ₃ . <i>Journal of Materials Chemistry C</i> , 2014, 2, 8423-8431.	5.5	75
33	Origins of large enhancement in electromechanical coupling for nonpolar directions in ferroelectric BaTiO ₃ . <i>Physical Review B</i> , 2013, 88, .	3.2	5
34	Origin of high piezoelectric response in A-site disordered morphotropic phase boundary composition of lead-free piezoelectric 0.93(Na _{0.5} Bi _{0.5})TiO ₃ BaTiO ₃ . <i>Journal of Applied Physics</i> , 2013, 113, .	2.5	74
35	Characterization of Magnetoelastic Coupling in Ferromagnetic Shape Memory Alloys Using Neutron Diffraction. <i>Jom</i> , 2013, 65, 54-64.	1.9	6
36	Polarized neutron diffraction at a spallation source for magnetic studies. <i>Journal of Applied Crystallography</i> , 2012, 45, 1024-1029.	4.5	3

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37	Domains, Domain Walls and Defects in Perovskite Ferroelectric Oxides: A Review of Present Understanding and Recent Contributions. <i>Critical Reviews in Solid State and Materials Sciences</i> , 2012, 37, 243-275.	12.3	88
38	Strain incompatibility and residual strains in ferroelectric single crystals. <i>Scientific Reports</i> , 2012, 2, 929.	3.3	10
39	Enhanced piezoelectricity and nature of electric-field induced structural phase transformation in textured lead-free piezoelectric Na _{0.5} Bi _{0.5} TiO ₃ -BaTiO ₃ ceramics. <i>Applied Physics Letters</i> , 2012, 100, .	3.3	77
40	Structural modulations and magnetic properties of off-stoichiometric Ni-Mn-Ga magnetic shape memory alloys. <i>Physical Review B</i> , 2012, 85, .	3.2	30
41	Origins of Electro-Mechanical Coupling in Polycrystalline Ferroelectrics During Subcoercive Electrical Loading. <i>Journal of the American Ceramic Society</i> , 2011, 94, 293-309.	3.8	310
42	In situ neutron diffraction study of twin reorientation and pseudoplastic strain in Ni-Mn-Ga single crystals. <i>Scripta Materialia</i> , 2011, 65, 540-543.	5.2	12
43	In situ neutron diffraction studies of a commercial, soft lead zirconate titanate ceramic: response to electric fields and mechanical stress. <i>Applied Physics A: Materials Science and Processing</i> , 2010, 99, 557-564.	2.3	22
44	Evaluation of Co and perovskite Cr-blocking thin films on SOFC interconnects. <i>Solid State Ionics</i> , 2010, 181, 1294-1302.	2.7	30
45	Time-Resolved Characterization of Ferroelectrics Using High-Energy X-Ray Diffraction. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2009, 56, 1539-1545.	3.0	55
46	Measurement of Structural Changes in Tetragonal PZT Ceramics under Static and Cyclic Electric Fields Using a Laboratory X-ray Diffractometer. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2009, 56, 1546-1554.	3.0	18
47	Lattice parameter determination using a curved position-sensitive detector in reflection geometry and application to Sm _{1-x/2} Nd _{x/2} Ce _{1-x} O ₂ ceramics. <i>Journal of Applied Crystallography</i> , 2009, 42, 490-495.	4.5	16
48	Subcoercive Cyclic Electrical Loading of Lead Zirconate Titanate Ceramics I: Nonlinearities and Losses in the Converse Piezoelectric Effect. <i>Journal of the American Ceramic Society</i> , 2009, 92, 2291-2299.	3.8	68
49	Subcoercive Cyclic Electrical Loading of Lead Zirconate Titanate Ceramics II: Time-Resolved X-Ray Diffraction. <i>Journal of the American Ceramic Society</i> , 2009, 92, 2300-2310.	3.8	70
50	Time-Resolved, Electric-Field-Induced Domain Switching and Strain in Ferroelectric Ceramics and Crystals. <i>Springer Series in Solid-state Sciences</i> , 2009, , 149-175.	0.3	2
51	Time-resolved characterization of domain switching in ferroelectrics using X-ray and neutron diffraction. , 2008, , .		0
52	Time-resolved measurement of structural changes in lead zirconate titanate ceramics under cyclic electric fields. , 2008, , .		0
53	High-throughput evaluation of domain switching in piezoelectric ceramics and application to PbZr _{0.6} Ti _{0.4} O ₃ doped with La and Fe. <i>Applied Physics Letters</i> , 2008, 93, 152904.	3.3	25
54	Time-resolved and orientation-dependent electric-field-induced strains in lead zirconate titanate ceramics. <i>Applied Physics Letters</i> , 2007, 90, 172909.	3.3	47

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55	Synthesis and Microstructure of Laser Surface Alloyed Al-Sn-Si Layer on Commercial Aluminum Substrate. <i>Journal of Materials Research</i> , 2005, 20, 1580-1589.	2.6	16
56	Broad Distribution of Local Polar States Generates Large Electrothermal Properties in Pb-Free Relaxor Ferroelectrics. <i>Chemistry of Materials</i> , 0, , .	6.7	2