Ashok Kumar

List of Publications by Year in descending order

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78	1,929	279798	265206
papers	citations	23 h-index	42 g-index

80	80	80	1869
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Impedance spectroscopy of multiferroic<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi mathvariant="normal">Pb</mml:mi><mml:msub><mml:mi mathvariant="normal">Zr</mml:mi><mml:mi>x</mml:mi></mml:msub><mml:msub><mml:mi mathvariant="normal">Ti</mml:mi><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^’</mml:mo><mml:mi>x</mml:mi></mml:mrow></mml:msub><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>	3.2	360
2	Symmetries and multiferroic properties of novel room-temperature magnetoelectrics: Lead iron tantalate â€“ lead zirconate titanate (PFT/PZT). AIP Advances, 2011, 1, .	1.3	110
3	Multiferroic Pb(Fe0.66W0.33)0.80Ti0.20O3 thin films: A room-temperature relaxor ferroelectric and weak ferromagnetic. Applied Physics Letters, 2008, 92, .	3.3	81
4	Magnetic control of large room-temperature polarization. Journal of Physics Condensed Matter, 2009, 21, 382204.	1.8	77
5	Impedance spectroscopic study on microwave sintered (1â€‰â^’â€‰x) Na0.5Bi0.5TiO3â€“x BaTiO3 ceramics. Journal of Materials Science: Materials in Electronics, 2018, 29, 6966-6977.	2.2	67
6	Dynamic magneto-electric multiferroics PZT/CFO multilayered nanostructure. Journal of Materials Science, 2009, 44, 5127-5142.	3.7	62
7	The Nature of Magnetoelectric Coupling in Pb(Zr,Ti)O₃â€“Pb(Fe,Ta)O₃. Advanced Materials, 2015, 27, 6068-6073.	21.0	58
8	Phonon anomalies and phonon-spin coupling in oriented PbFe<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow /><mml:mrow><mml:mn>0.5</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>Nb<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow /><mml:mrow><mml:mn>0.5</mml:mn></mml:mr	3.2	54
9	Magnetic effects on dielectric and polarization behavior of multiferroic heterostructures. Applied Physics Letters, 2010, 96, 072904.	3.3	51
10	Effect of electrode resistance on dielectric and transport properties of multiferroic superlattice: A Impedance spectroscopy study. AIP Advances, 2012, 2, .	1.3	51
11	Flexible and wearable capacitive pressure sensor for blood pressure monitoring. Sensing and Bio-Sensing Research, 2021, 33, 100434.	4.2	48
12	Anomalous change in leakage and displacement currents after electrical poling on lead-free ferroelectric ceramics. Applied Physics Letters, 2015, 107, .	3.3	39
13	Experimental evidence of electronic polarization in a family of photo-ferroelectrics. RSC Advances, 2017, 7, 12842-12855.	3.6	39
14	Glasslike state in PbFe1/2Nb1/2O3 single crystal. Applied Physics Letters, 2008, 93, .	3.3	37
15	Compositional engineering of BaTiO3/(Ba,Sr)TiO3 ferroelectric superlattices. Journal of Applied Physics, 2013, 114, .	2.5	37
16	Investigation of local structure of leadâ€free relaxor Ba(Ti_{0.70}Sn_{0.30})O₃ by Raman spectroscopy. Journal of Raman Spectroscopy, 2009, 40, 459-462.	2.5	32
17	Fabrication and characterization of the multiferroic birelaxor leadâ€“ironâ€“tungstate/leadâ€“zirconateâ€“titanate. Journal of Applied Physics, 2010, 108, .	2.5	32
18	Observation of one magnon and magnon-phonon-electric dipole coupling in multiferroics bismuth ferrite thin films. Applied Physics Letters, 2008, 92, .	3.3	31

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19	Magnon Raman spectroscopy and in-plane dielectric response in BiFeO3: Relation to the Polomska transition. Physical Review B, 2012, 85, .	3.2	31
20	Observation of magnetoelectric coupling in glassy epitaxial PbFe0.5Nb0.5O3 thin films. Applied Physics Letters, 2008, 93, .	3.3	30
21	Inâ€plane dielectric and magnetoelectric studies of BiFeO₃. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 1207-1212.	1.8	28
22	Probing the ferroelectric phase transition through Raman spectroscopy in Pb(Fe2âˆ•3W1âˆ•3)1âˆ•2Ti1âˆ•2O3 thin films. Applied Physics Letters, 2007, 90, 262907.	3.3	26
23	Exploring the Magnetoelectric Coupling at the Composite Interfaces of FE/FM/FE Heterostructures. Scientific Reports, 2018, 8, 17381.	3.3	26
24	Recent progress in the fabrication and applications of flexible capacitive and resistive pressure sensors. Sensors and Actuators A: Physical, 2022, 344, 113770.	4.1	24
25	Palladium-based ferroelectrics and multiferroics: Theory and experiment. Physical Review B, 2017, 95, .	3.2	23
26	Strain-induced artificial multiferroicity in Pb(Zr0.53Ti0.47)O3/Pb(Fe0.66W0.33)O3 layered nanostructure at ambient temperature. Journal of Materials Science, 2009, 44, 5113-5119.	3.7	22
27	Evidence of strong magneto-dielectric coupling and enhanced electrical insulation at room temperature in Nd and Mn co-doped bismuth ferrite. Journal of Applied Physics, 2017, 122, .	2.5	22
28	Probing the ferroelectric phase transition in solâ€“gelâ€derived polycrystalline bismuth ferrite thin films. Journal of Raman Spectroscopy, 2008, 39, 1262-1267.	2.5	21
29	Ferroelectric-dielectric composite pressure sensor. Sensors and Actuators A: Physical, 2019, 297, 111536.	4.1	20
30	Flexible microhyperboloids facets giant sensitive ultra-low pressure sensor. Sensors and Actuators A: Physical, 2021, 328, 112767.	4.1	20
31	Ferroelectricâ€“carbon nanotube memory devices. Nanotechnology, 2012, 23, 165702.	2.6	19
32	Resistive switching in emerging materials and their characteristics for neuromorphic computing. , 2022, 1, 100004.		19
33	Spontaneous anion-exchange synthesis of optically active mixed-valence Cs₂Au₂I₆ perovskites from layered CsAuCl₄ perovskites. Chemical Communications, 2021, 57, 1478-1481.	4.1	18
34	Giant pressure sensitivity in piezo/ferro-electric ceramics. RSC Advances, 2020, 10, 9140-9145.	3.6	17
35	Positive temperature coefficient of resistivity and negative differential resistivity in lead iron tunstate-lead zirconate titate. Applied Physics Letters, 2009, 94, 212903.	3.3	16
36	Room temperature multiferroicity and magnetodielectric coupling in 0â€“3 composite thin films. Journal of Applied Physics, 2020, 127, .	2.5	16

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37	Strain-Induced Relaxor Behavior in PbSc0.50Nb0.25Ta0.25O3Thin Films: A Comparison with Nanoceramics. Journal of the American Ceramic Society, 2008, 91, 1788-1795.	3.8	15
38	Tin titanateâ€"the hunt for a new ferroelectric perovskite. Reports on Progress in Physics, 2019, 82, 092501.	20.1	15
39	Oscillometric Waveform Evaluation for Blood Pressure Devices. Biomedical Engineering Advances, 2022, 4, 100046.	3.8	15
40	Properties of the new electronic device material La<scp>G</scp>dO₃. Physica Status Solidi (B): Basic Research, 2014, 251, 131-139.	1.5	13
41	Studies on dielectric, optical, magnetic, magnetic domain structure, and resistance switching characteristics of highly c-axis oriented NZFO thin films. Journal of Applied Physics, 2017, 122, 033902.	2.5	13
42	Ferroic phase transitions and magnetoelectric coupling in cobalt doped BaTiO₃. Journal of Materials Chemistry C, 2021, 9, 12694-12711.	5.5	13
43	Lowâ€Pressure Mechanical Switching of Ferroelectric Domains in PbZr_{0.48}Ti_{0.52}O₃. Advanced Electronic Materials, 2020, 6, 2000523.	5.1	12
44	Novel room temperature multiferroics for random access memory elements. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2010, 57, 2237-2242.	3.0	10
45	Biferroic relaxors. Applied Physics Letters, 2011, 99, 042907.	3.3	10
46	Effects of light on ferroelectric polarization and leakage current. Vacuum, 2018, 153, 91-95.	3.5	10
47	Uncertainty evaluation and phase variation of ultrasonic interferometer manometer: A primary pressure and vacuum standard. Vacuum, 2019, 165, 232-238.	3.5	10
48	Magnetoelectric Characterization of Multiferroic Nanostructure Materials. Ferroelectrics, 2014, 473, 137-153.	0.6	9
49	Ferroelectric capped magnetization in multiferroic PZT/LSMO tunnel junctions. Applied Physics Letters, 2015, 106, .	3.3	9
50	Evaluation of Uncertainty in the Effective Area and Distortion Coefficients of Air Piston Gauge Using Monte Carlo Method. Mapan - Journal of Metrology Society of India, 2019, 34, 371-377.	1.5	9
51	Microstructure and surface morphology evolution of pulsed laser deposited piezoelectric BaTiO3 films. Journal of Materials Chemistry C, 2013, 1, 6308.	5.5	8
52	Exploring phase transitions and magnetoelectric coupling of epitaxial asymmetric multilayer heterostructures. Journal of Materials Chemistry C, 2020, 8, 12113-12122.	5.5	8
53	Room-temperature large magnetoelectricity in a transition metal doped ferroelectric perovskite. Physical Review B, 2021, 104, .	3.2	8
54	Investigation on (Sr,Co)Bi₂Nb₂O₉ thin films: A leadâ€free room temperature multiferroics. Physica Status Solidi - Rapid Research Letters, 2010, 4, 25-27.	2.4	7

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55	Investigation on Room Temperature Multiferroic Bi-Relaxor. Integrated Ferroelectrics, 2011, 131, 110-118.	0.7	7
56	On long-term stability of an air piston gauge maintained at National Physical Laboratory, India. Vacuum, 2020, 176, 109357.	3.5	7
57	Asymmetric resistive switching by anion out-diffusion mechanism in transparent Al/ZnO/ITO heterostructure for memristor applications. Surfaces and Interfaces, 2022, , 101950.	3.0	7
58	Establishing a Continuous Chain of Traceability for Pressure Measurements up to 40 MPa. NCSL International Measure, 2013, 8, 56-65.	0.1	6
59	Effect of bismuth substitution on piezoelectric coefficients and temperature and pressure-dependent dielectric and impedance properties of lead zirconate titanate ceramics. Materials Today Communications, 2021, 26, 101846.	1.9	5
60	Evaluation of effective area of air piston gauge with limitations in pistonâ€“cylinder dimension measurements. Metrologia, 2021, 58, 035004.	1.2	5
61	Microstructure-Relaxor Property Relationship of		

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73	Fabrication and Characterization of Artificially Designed PZT/LSMO Multiferroics Heterostructure. Materials Research Society Symposia Proceedings, 2009, 1199, 48.	0.1	1
74	Applications of Strain-Coupled Magnetoelectric Composites. , 2022, , 229-238.		1
75	Improved energy storage density and energy efficiency of Samarium modified PMNT electroceramic. Ceramics International, 2022, 48, 18278-18285.	4.8	1
76	Analysis of Leakage Currents through PLD Grown Ultrathin a-LaGdO3 Based High-k Metal Gate Devices. Materials Research Society Symposia Proceedings, 2013, 1561, 1.	0.1	0
77	Properties of the new electronic device material LaGdO3(Phys. Status Solidi B 1/2014). Physica Status Solidi (B): Basic Research, 2014, 251, n/a-n/a.	1.5	0
78	Electric field modulated photoluminescence in ferroelectric ceramics for photosensitive device applications. Materials Research Bulletin, 2022, 152, 111831.	5.2	0