Pattukannu Murugavel

List of Publications by Year in Descending Order

86 papers	2,371 citations	24 h-index	46 g-index
91 ext. papers	2,629 ext. citations	3.5 avg, IF	4.92 L-index

#	Paper	IF	Citations
86	Photoelectrocaloric effect in ferroelectric oxide.. *Scientific Reports*, **2022**, 12, 6390	4.9	
85	Large electrocaloric effect and energy storage performance of site-engineered lead-free Ba1-x (Bi0.5Li0.5) x TiO3 ferroelectric oxides. *Journal Physics D: Applied Physics*, **2021**, 54, 045302	3	1
84	Bulk photovoltaic effect in BaTiO3-based ferroelectric oxides: An experimental and theoretical study. *Journal of Applied Physics*, **2021**, 129, 084106	2.5	4
83	Electric field and mechanical stress driven structural inhomogeneity and compositionally induced relaxor phase transformation in modified BaTiO based lead-free ferroelectrics. *Journal of Physics Condensed Matter*, **2020**, 32, 365401	1.8	4
82	Physical vapor deposited organic ferroelectric diisopropylammonium bromide film and its self-powered photodetector characteristics.. *RSC Advances*, **2020**, 10, 25773-25779	3.7	3
81	Engineering Resonance Modes for Enhanced Magnetoelectric Coupling in Bilayer Laminate Composites for Energy Harvesting Applications. *Physical Review Applied*, **2020**, 13,	4.3	12
80	Room-temperature magnetization reversal and magnetocaloric switching in Fe substituted GdMnO3. *Physical Review Materials*, **2020**, 4,	3.2	2
79	Photoferroelectric phenomena in ferroelectric oxides and a Rayleigh analysis. *Physical Review Materials*, **2020**, 4,	3.2	2
78	Linear bulk photovoltaic effect and phenomenological study in multi-phase co-existing ferroelectric system. *Journal of Physics Condensed Matter*, **2020**,	1.8	2
77	The composition and poling-dependent photovoltaic studies in ferroelectric (Bi1−xSrx)(Fe1−xTix)O3 thin films. *Journal of Materials Science: Materials in Electronics*, **2020**, 31, 1515-1523	2.1	0
76	Polarization driven self-biased and enhanced UV–visible photodetector characteristics of ferroelectric thin film. *Journal Physics D: Applied Physics*, **2020**, 53, 275302	3	12
75	Polarization controlled photovoltaic and self-powered photodetector characteristics in Pb-free ferroelectric thin film. *APL Materials*, **2019**, 7, 011106	5.7	23
74	Enhanced bulk photovoltaic response in Sn doped BaTiO3 through composition dependent structural transformation. *Applied Physics Letters*, **2019**, 114, 183901	3.4	16
73	Large photovoltaic response in rare-earth doped BiFeO3 polycrystalline thin films near morphotropic phase boundary composition. *Applied Physics Letters*, **2019**, 114, 173901	3.4	16
72	Pressure induced phase transformations in diisopropylammonium bromide. *Journal of Solid State Chemistry*, **2019**, 274, 182-187	3.3	6
71	Large Bulk Photovoltaic Response by Symmetry-Breaking Structural Transformation in Ferroelectric [Ba(Zr0.2Ti0.8)O3]0.5[(Ba0.7Ca0.3)TiO3]0.5. *Physical Review Applied*, **2019**, 11,	4.3	15
70	Influence of external electric field on the physical characteristics of lead free BZT- BCT piezoceramic. *Journal of Alloys and Compounds*, **2019**, 787, 990-995	5.7	3

69	Large magnetoelectric response in lead free BaTi1−SnxO3/NiFe2O4 bilayer laminated composites. *Journal of Materials Science: Materials in Electronics*, **2019**, 30, 6725-6733	2.1	4
68	Large magnetoelectric coupling in 0.5Ba(Zr0.2Ti0.8)O3−0.5(Ba0.7Ca0.3) TiO3 film on Ni foil. *Journal Physics D: Applied Physics*, **2019**, 52, 065004	3	8
67	Investigations on the effect of magnetic ordering on dielectric relaxation in polycrystalline GdMn1-Fe O3. *Physica B: Condensed Matter*, **2019**, 555, 99-105	2.8	6
66	The role of precursors on piezoelectric and ferroelectric characteristics of 0.5BCT-0.5BZT ceramic. *Ceramics International*, **2018**, 44, 6861-6865	5.1	12
65	Spin-flop and magnetodielectric reversal in Yb substituted GdMnO. *Journal of Physics Condensed Matter*, **2018**, 30, 125801	1.8	9
64	Dipole pinning effect on photovoltaic characteristics of ferroelectric BiFeO3 films. *Journal of Applied Physics*, **2018**, 123, 024101	2.5	8
63	Investigations on the defect dipole induced pyroelectric current in multiferroic GdMnO3 system. *Journal of Applied Physics*, **2018**, 123, 014102	2.5	9
62	Magnetocaloric effect in (La0.7Sr0.3MnO3)1− (BaTiO3) x solid solution spin-glass system. *Journal of Materials Science*, **2018**, 53, 2405-2412	4.3	2
61	Giant photovoltaic response in band engineered ferroelectric perovskite. *Scientific Reports*, **2018**, 8, 8005	4.9	25
60	Impact of cationic vacancies on the physical characteristics of multiferroic GdMnO3. *Journal of Applied Physics*, **2018**, 123, 234102	2.5	13
59	Self-polarization effect on large photovoltaic response in lead free ferroelectric 0.5Ba(Zr0.2Ti0.8)O3-0.5(Ba0.7Ca0.3)TiO3 epitaxial film. *Applied Physics Letters*, **2018**, 113, 233902	3.4	7
58	Impedance characteristics and PTCR effect in lead free BaTi1-xSnxO3 piezoceramics. *Materials Research Bulletin*, **2018**, 106, 371-378	5.1	10
57	Interface Control of Ferroelectricity in an SrRuO /BaTiO /SrRuO Capacitor and its Critical Thickness. *Advanced Materials*, **2017**, 29, 1602795	24	39
56	Photovoltaic and photo-capacitance effects in ferroelectric BiFeO3 thin film. *Applied Physics Letters* , **2017**, 110, 192906	3.4	35
55	Vibrational spectroscopic and computational studies on diisopropylammonium bromide. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2017**, 184, 211-219	4.4	7
54	Tailoring of magnetic orderings in Fe substituted GdMnO bulk samples towards room temperature. *Journal of Physics Condensed Matter*, **2017**, 29, 405803	1.8	18
53	Investigating Size- and Temperature-Dependent Coercivity and Saturation Magnetization in PEG Coated Fe3O4 Nanoparticles. *Magnetochemistry*, **2017**, 3, 19	3.1	38
52	Spin-glass state in nanoparticulate (La0.7Sr0.3MnO3)1−(BaTiO3)x solid solutions: Experimental and density-functional studies. *Physical Review B*, **2016**, 93,	3.3	14

51	Study of ferroelectric characteristics of diisopropylammonium bromide films. *Journal of Applied Physics*, **2016**, 120, 124107	2.5	19
50	Study of enhanced magnetism in Lu doped multiferroic bismuth ferrite. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **2015**, 199, 121-124	3.1	9
49	A study of magnetic ordering in multiferroic hexagonal Ho1-xDyxMnO3. *Journal of Applied Physics*, **2015**, 117, 074104	2.5	5
48	Impedance and magnetoelectric characteristics of (1 −x)BaTiO3–La0.7Sr0.3MnO3 (x = 0.1 and 0.3) nano-composites. *Applied Physics A: Materials Science and Processing*, **2015**, 120, 615-622	2.6	6
47	Ferroelectric ordering and magnetoelectric effect of pristine and Ho-doped orthorhombic DyMnO3 by dielectric studies. *Journal of Applied Physics*, **2015**, 118, 074102	2.5	11
46	Origin of enhanced magnetization in rare earth doped multiferroic bismuth ferrite. *Journal of Applied Physics*, **2014**, 115, 073902	2.5	40
45	Role of oxygen vacancy and Fe-O-Fe bond angle in compositional, magnetic, and dielectric relaxation on Eu-substituted BiFeO(3) nanoparticles. *Dalton Transactions*, **2014**, 43, 5731-8	4.3	125
44	Enhanced magnetic properties in low doped La1-xBaxMnO3+δ (x=0, 0.1 and 0.2) nanoparticles. *Journal of Magnetism and Magnetic Materials*, **2014**, 364, 125-128	2.8	12
43	Impedance spectroscopic analysis of the organic ferroelectric Diisopropylammonium bromide (DIPAB). *Current Applied Physics*, **2014**, 14, 688-690	2.6	10
42	Role of rare earth on the Mn3+ spin reorientation in multiferroic Ho1-xLuxMnO3. *Journal of Applied Physics*, **2013**, 114, 094102	2.5	1
41	Oxides: Their Properties and Uses **2013**, 47-72		
40	Magnetic, dielectric and magnetodielectric properties of PVDF-La0.7Sr0.3MnO3 polymer nanocomposite film. *AIP Advances*, **2013**, 3, 112109	1.5	32
39	Magnetoelectric effect in La0.7Sr0.3MnO3–BaTiO3 core–shell nanocomposite. *Materials Research Bulletin*, **2013**, 48, 1308-1311	5.1	20
38	Strong enhancement of magnetoelectric coupling in Dy3+ doped HoMnO3. *Applied Physics Letters*, **2012**, 101, 022902	3.4	18
37	Study of magnetodielectric effect in hexagonal Ho1−xDyxMnO3. *Journal of Applied Physics*, **2012**, 112, 104116	2.5	11
36	Ferroelectric properties of multiferroic hexagonal ErMnO3 thin films. *Journal of the Korean Physical Society*, **2009**, 55, 841-845	0.6	4
35	Electronic structures of hexagonal RMnO3 (R=Gd, Tb, Dy, and Ho) thin films: Optical spectroscopy and first-principles calculations. *Physical Review B*, **2008**, 77,	3.3	71
34	Optical spectroscopic investigation on the coupling of electronic and magnetic structure in multiferroic hexagonal RMnO3 (R=Gd, Tb, Dy, and Ho) thin films. *Physical Review B*, **2008**, 78,	3.3	38

33	Structure and ferroelectric properties of epitaxial (1−x)BiFeO3–xBaTiO3solid solution films. *Journal of Physics Condensed Matter*, **2008**, 20, 415208	1.8	10
32	Publisher's Note: Electronic structures of hexagonal RMnO3 (R=Gd, Tb, Dy, and Ho) thin films: Optical spectroscopy and first-principles calculations [Phys. Rev. B 77, 045137 (2008)]. *Physical Review B*, **2008**, 77,	3.3	4
31	Growth behavior of artificial hexagonal GdMnO3 thin films. *Journal of Crystal Growth*, **2008**, 310, 829-835	1.6	7
30	Ferroelectricity driven by Y d0-ness with rehybridization in YMnO3. *Physical Review Letters*, **2007**, 98, 217601	7.4	105
29	Multiferroic properties of epitaxially stabilized hexagonal DyMnO3 thin films. *Applied Physics Letters*, **2007**, 90, 012903	3.4	57
28	Epitaxial stabilization of artificial hexagonal GdMnO3 thin films and their magnetic properties. *Applied Physics Letters*, **2007**, 90, 182504	3.4	35
27	Physical properties of multiferroic hexagonal HoMnO3 thin films. *Applied Physics Letters*, **2007**, 90, 142902	3.4	41
26	Formation of hexagonal phase of TbMnO3 thin film and its multiferroic properties. *Journal of Materials Research*, **2007**, 22, 2156-2162	2.5	5
25	Epitaxial Stabilization of a New Multiferroic Hexagonal Phase of TbMnO3 Thin Films. *Advanced Materials*, **2006**, 18, 3125-3129	24	84
24	Effect of oxygen pressure on the interface related magnetic and transport properties of La0.7Sr0.3MnO3/BaTiO3superlattices. *Journal of Physics Condensed Matter*, **2006**, 18, 3377-3384	1.8	11
23	Magnetoelectric effects of nanoparticulate Pb(Zr0.52Ti0.48)O3–NiFe2O4 composite films. *Applied Physics Letters*, **2006**, 89, 102907	3.4	126
22	The magnetotransport properties of La0.7Sr0.3MnO3–BaTiO3 superlattices grown by pulsed laser deposition technique. *Journal of Applied Physics*, **2006**, 100, 023520	2.5	14
21	Effect of orbital rotation and mixing on the optical properties of orthorhombic RMnO3 (R=La, Pr, Nd, Gd, and Tb). *Physical Review Letters*, **2006**, 96, 247205	7.4	42
20	A Brillouin study of the temperature-dependence of the acoustic modes across the insulator–metal transitions in V2O3 and Cr-doped V2O3. *Solid State Communications*, **2006**, 138, 466-471	1.6	11
19	The role of ferroelectric-ferromagnetic layers on the properties of superlattice-based multiferroics. *Journal of Applied Physics*, **2005**, 97, 103914	2.5	54
18	The single-phase multiferroic oxides: from bulk to thin film. *Journal of Physics Condensed Matter*, **2005**, 17, R803-R832	1.8	528
17	Ferromagnetism and metal-like transport in antiferromagnetic insulator heterostructures. *Applied Physics Letters*, **2005**, 87, 022506	3.4	3
16	Growth and Characterization of Epitaxial Barium Titanate and Cobalt Ferrite Composite Film. *Journal of the Korean Physical Society*, **2005**, 47, 345	0.6	7

15	Thickness dependent and annealing effects of underdoped lanthanum manganite thin films grown on Si substrates. *Journal of Applied Physics*, **2004**, 95, 2536-2539	2.5	11
14	Enhanced magnetoresistance in ferromagnetic Pr0.85Ca0.15MnO3/ferroelectric Ba0.6Sr0.4TiO3 superlattice films. *Applied Physics Letters*, **2004**, 85, 4992-4994	3.4	44
13	Tailoring of ferromagnetic Pr0.85Ca0.15MnO3/ferroelectric Ba0.6Sr0.4TiO3 superlattices for multiferroic properties. *Applied Physics Letters*, **2004**, 85, 4424	3.4	51
12	Origin of the 2 eV peak in optical absorption spectra of LaMnO3: an explanation based on the orbitally degenerate Hubbard model. *New Journal of Physics*, **2004**, 6, 156-156	2.9	40
11	Magnetic properties of lanthanum orthoferrite fine powders prepared by different chemical routes. *Journal of Chemical Sciences*, **2003**, 115, 519-524	1.8	17
10	Origin of metal–insulator transition temperature enhancement in underdoped lanthanum manganite films. *Applied Physics Letters*, **2003**, 82, 1908-1910	3.4	76
9	Effects of oxygen annealing on the physical properties and surface microstructures of La0.8Ba0.2MnO3films. *Journal Physics D: Applied Physics*, **2002**, 35, 3166-3170	3	19
8	Brillouin scattering from C70 and C60 films: a comparative study of elastic properties. *Chemical Physics Letters*, **2000**, 331, 149-153	2.5	6
7	A Brillouin scattering study of the quasi-one-dimensional blue bronze, K0.3MoO3. *Journal of Physics Condensed Matter*, **2000**, 12, L225-L231	1.8	2
6	Magnetic excitations in charge-ordered Nd 0.5 Ca 0.5 MnO 3 : A Brillouin scattering study. *Europhysics Letters*, **2000**, 52, 461-467	1.6	21
5	A study of ferroelectric thin films deposited on a LaNiO3barrier electrode by nebulized spray pyrolysis. *Journal Physics D: Applied Physics*, **2000**, 33, 906-911	3	18
4	Preparation and characterization of sub-micron spherical particles of Al2O3, SiO2 and mullite. *Materials Chemistry and Physics*, **1998**, 53, 247-251	4.4	9
3	Crystalline alumina films prepared by nebulized spray pyrolysis. *Bulletin of Materials Science*, **1998**, 21, 107-110	1.7	4
2	Sub-micrometre spherical particles of TiO2,ZrO2 and PZT by nebulized spray pyrolysis ofmetal–organic precursors. *Journal of Materials Chemistry*, **1997**, 7, 1433-1438		48
1	Synthesis and role of Nd and Sm on the microwave dielectric properties of BaNd2(1 − x)Sm2xTi5O14 dielectric resonator. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **1997**, 48, 202-204	3.1	10