

Ashish Garg

List of Publications by Year in descending order

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117
papers

3,250
citations

136950

32
h-index

175258

52
g-index

119
all docs

119
docs citations

119
times ranked

4566
citing authors

#	ARTICLE	IF	CITATIONS
1	Development of high strength hydroxyapatite by solid-state-sintering process. <i>Ceramics International</i> , 2007, 33, 419-426.	4.8	249
2	Phase evolution, magnetic and electrical properties in Sm-doped bismuth ferrite. <i>Journal of Applied Physics</i> , 2008, 103, .	2.5	156
3	Significantly Enhanced Energy Density by Tailoring the Interface in Hierarchically Structured TiO ₂ @ BaTiO ₃ @ TiO ₂ Nanofillers in PVDF-Based Thin-Film Polymer Nanocomposites. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 14329-14339.	8.0	121
4	BiFeO ₃ ceramics synthesized by mechanical activation assisted versus conventional solid-state-reaction process: A comparative study. <i>Journal of Alloys and Compounds</i> , 2009, 477, 780-784.	5.5	102
5	Flexible and Robust Piezoelectric Polymer Nanocomposites Based Energy Harvesters. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 2793-2800.	8.0	100
6	Room Temperature Nanoscale Ferroelectricity in Magnetolectric GaFeO ₃ Epitaxial Thin Films. <i>Physical Review Letters</i> , 2013, 111, 087601.	7.8	99
7	Multiferroic Memories. <i>Advances in Condensed Matter Physics</i> , 2012, 2012, 1-12.	1.1	96
8	Engineered thiol anchored Au-BaTiO ₃ /PVDF polymer nanocomposite as efficient dielectric for electronic applications. <i>Composites Science and Technology</i> , 2019, 174, 158-168.	7.8	89
9	Effect of tantalum doping in a TiO ₂ compact layer on the performance of planar spiro-OMeTAD free perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2018, 6, 1037-1047.	10.3	86
10	Impedance spectroscopy studies on polycrystalline BiFeO ₃ thin films on Pt/Si substrates. <i>Journal of Applied Physics</i> , 2009, 105, .	2.5	85
11	Influence of Zr doping on the structure and ferroelectric properties of BiFeO ₃ thin films. <i>Journal of Applied Physics</i> , 2010, 107, .	2.5	74
12	Ferroelectric polarization switching with a remarkably high activation energy in orthorhombic GaFeO ₃ thin films. <i>NPG Asia Materials</i> , 2016, 8, e242-e242.	7.9	72
13	Structural, dielectric and ferroelectric study of Ba _{0.9} Sr _{0.1} Zr _x Ti _{1-x} O ₃ ceramics prepared by the sol-gel method. <i>Physica B: Condensed Matter</i> , 2008, 403, 1819-1823.	2.7	64
14	Magnetic studies of multiferroic Bi _{1-x} Sm _x FeO ₃ ceramics synthesized by mechanical activation assisted processes. <i>Journal of Physics Condensed Matter</i> , 2009, 21, 026007.	1.8	62
15	Quasi-Cubic Magnetite/Silica Core-Shell Nanoparticles as Enhanced MRI Contrast Agents for Cancer Imaging. <i>PLoS ONE</i> , 2011, 6, e21857.	2.5	58
16	Progress in tailoring perovskite based solar cells through compositional engineering: Materials properties, photovoltaic performance and critical issues. <i>Materials Today Energy</i> , 2018, 9, 440-486.	4.7	58
17	Phonons and magnetic excitation correlations in weak ferromagnetic YCrO ₃ . <i>Journal of Applied Physics</i> , 2014, 115, .	2.5	57
18	Milli-Watt Power Harvesting from Dual Triboelectric and Piezoelectric Effects of Multifunctional Green and Robust Reduced Graphene Oxide/P(VDF-TrFE) Composite Flexible Films. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 38177-38189.	8.0	56

#	ARTICLE	IF	CITATIONS
19	Multifunctional and Flexible Polymeric Nanocomposite Films with Improved Ferroelectric and Piezoelectric Properties for Energy Generation Devices. <i>ACS Applied Energy Materials</i> , 2019, 2, 6364-6374.	5.1	52
20	Compositional dependence of structural parameters, polyhedral distortion and magnetic properties of gallium ferrite. <i>Solid State Communications</i> , 2012, 152, 1181-1185.	1.9	48
21	Probing magnetoelastic coupling and structural changes in magnetoelectric gallium ferrite. <i>Journal of Physics Condensed Matter</i> , 2011, 23, 445403.	1.8	45
22	Understanding the role of thickness and morphology of the constituent layers on the performance of inverted organic solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2013, 116, 135-143.	6.2	45
23	Understanding the formation of PEDOT:PSS films by ink-jet printing for organic solar cell applications. <i>RSC Advances</i> , 2015, 5, 78677-78685.	3.6	45
24	Spin glass-like phase below ~ 210 K in magnetoelectric gallium ferrite. <i>Applied Physics Letters</i> , 2012, 100, 112904.	3.3	43
25	Synthesis of a NbO Type Homochiral Cu(II) Metal-Organic Framework: Ferroelectric Behavior and Heterogeneous Catalysis of Three-Component Coupling and Pechmann Reactions. <i>Inorganic Chemistry</i> , 2017, 56, 4697-4705.	4.0	42
26	Inkjet printing of NiO films and integration as hole transporting layers in polymer solar cells. <i>Scientific Reports</i> , 2017, 7, 1775.	3.3	41
27	Electronic structure, Born effective charges and spontaneous polarization in magnetoelectric gallium ferrite. <i>Journal of Physics Condensed Matter</i> , 2011, 23, 325902.	1.8	39
28	Poly(vinylpyrrolidone)/Poly(vinylidene fluoride) as Guest/Host Polymer Blends: Understanding the Role of Compositional Transformation on Nanoscale Dielectric Behavior through a Simple Solution-Process Route. <i>ACS Applied Energy Materials</i> , 2019, 2, 6146-6152.	5.1	38
29	Effect of annealing atmosphere on leakage and dielectric characteristics of multiferroic gallium ferrite. <i>Journal of the American Ceramic Society</i> , 2017, 100, 5226-5238.	3.8	34
30	Electrical and impedance spectroscopy analysis of sol-gel derived spin coated $\text{Cu}_2\text{ZnSnS}_4$ solar cell. <i>Journal of Applied Physics</i> , 2018, 123, .	2.5	34
31	Phase stability in ferroelectric bismuth titanate: a first-principles study. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2008, 64, 368-375.	0.3	33
32	Sr and Mn co-doped sol-gel derived BiFeO_3 ceramics with enhanced magnetism and reduced leakage current. <i>Materials Research Express</i> , 2017, 4, 015702.	1.6	33
33	Impedance spectroscopy on degradation analysis of polymer/fullerene solar cells. <i>Solar Energy</i> , 2019, 178, 133-141.	6.1	30
34	Metal-Organic Frameworks Built from a Linear Rigid Dicarboxylate and Different Colinkers: Trap of the Keto Form of Ethylacetoacetate, Luminescence and Ferroelectric Studies. <i>Crystal Growth and Design</i> , 2015, 15, 4526-4535.	3.0	29
35	First-principles calculations of Born effective charges and spontaneous polarization of ferroelectric bismuth titanate. <i>Journal of Physics Condensed Matter</i> , 2010, 22, 165902.	1.8	27
36	Enhancement in magnetic properties of Ba-doped BiFeO_3 ceramics by mechanical activation. <i>Journal of Alloys and Compounds</i> , 2015, 651, 294-301.	5.5	27

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37	Spin phonon interactions and magnetodielectric effects in multiferroic BiFeO ₃ /PbTiO ₃ . Journal of Physics Condensed Matter, 2016, 28, 075901.	1.8	26
38	A fluorene-core-based electron acceptor for fullerene-free BHJ organic solar cells towards power conversion efficiencies over 10%. Chemical Communications, 2018, 54, 4001-4004.	4.1	26
39	Maghemite/Polyvinylidene Fluoride Nanocomposite for Transparent, Flexible Triboelectric Nanogenerator and Noncontact Magneto-Triboelectric Nanogenerator. ACS Sustainable Chemistry and Engineering, 2019, 7, 14856-14866.	6.7	26
40	Dicyanovinylene and Thiazolo[5,4-d]thiazole Core Containing D Type Hole-Transporting Materials for Spiro-OMeTAD-Free Perovskite Solar Cell Applications with Superior Atmospheric Stability. ACS Applied Energy Materials, 2019, 2, 7609-7618.	5.1	26
41	Structural changes and ferroelectric properties of BiFeO ₃ /PbTiO ₃ thin films grown via a chemical multilayer deposition method. Journal of Applied Physics, 2009, 105, .	2.5	24
42	An efficient route to fabricate fatigue-free P(VDF-TrFE) capacitors with enhanced piezoelectric and ferroelectric properties and excellent thermal stability for sensing and memory applications. Physical Chemistry Chemical Physics, 2017, 19, 7743-7750.	2.8	24
43	Dielectric relaxation and ac conductivity in magnetoelectric YCrO ₃ ceramics: A temperature dependent impedance spectroscopy analysis. Journal of the European Ceramic Society, 2018, 38, 5359-5366.	5.7	23
44	Enhanced efficiency and thermal stability of mesoscopic perovskite solar cells by adding PC70BM acceptor. Solar Energy Materials and Solar Cells, 2019, 202, 110130.	6.2	23
45	Role of PC60BM in defect passivation and improving degradation behaviour in planar perovskite solar cells. Solar Energy Materials and Solar Cells, 2020, 207, 110335.	6.2	23
46	Improved lifetimes of organic solar cells with solution-processed molybdenum oxide anode-modifying layers. Progress in Photovoltaics: Research and Applications, 2015, 23, 989-996.	8.1	22
47	Modifications of the structure and magnetic properties of ceramic YCrO ₃ with Fe/Ni doping. Materials Research Express, 2017, 4, 076104.	1.6	20
48	Thiazolothiazole-Based Fluorescence Probe towards Detection of Copper and Iron Ions through Formation of Radical Cations. ChemistrySelect, 2019, 4, 11718-11725.	1.5	20
49	Structural and electrical properties of samarium-substituted bismuth titanate ferroelectric thin films on Pt/TiO _x /SiO ₂ /Si substrates. Thin Solid Films, 2005, 484, 188-195.	1.8	19
50	Cooling rate controlled microstructure evolution and reduced coercivity in P(VDF-TrFE) devices for memory applications. Organic Electronics, 2014, 15, 82-90.	2.6	19
51	Microscopic Investigations into the Effect of Surface Treatment of Cathode and Electron Transport Layer on the Performance of Inverted Organic Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 16418-16427.	8.0	19
52	A novel 3D 10-fold interpenetrated homochiral coordination polymer: large spontaneous polarization, dielectric loss and emission studies. CrystEngComm, 2014, 16, 4766.	2.6	18
53	Probing the Interface Activation in Designing Defect-Free Multilayered Polymer Nanocomposites for Dielectric Capacitor Applications. Journal of Physical Chemistry C, 2020, 124, 22914-22924.	3.1	18
54	Absence of morphotropic phase boundary effects in BiFeO ₃ /PbTiO ₃ thin films grown via a chemical multilayer deposition method. Applied Physics A: Materials Science and Processing, 2011, 104, 395-400.	2.3	17

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55	Dielectric response and magnetoelectric coupling in single crystal gallium ferrite. AIP Advances, 2013, 3, .	1.3	17
56	Thin film transistors fabricated by evaporating pentacene under electric field. Journal of Applied Physics, 2013, 114, 154517.	2.5	17
57	Inverted P3HT:PCBM organic solar cells on low carbon steel substrates. Solar Energy, 2016, 133, 339-348.	6.1	17
58	Effect of site-disorder on magnetism and magneto-structural coupling in gallium ferrite: A first-principles study. Journal of Applied Physics, 2012, 111, .	2.5	16
59	Inverted polymer bulk heterojunction solar cells with ink-jet printed electron transport and active layers. Organic Electronics, 2016, 35, 118-127.	2.6	16
60	Organic solar cells on Al electroded opaque substrates: Assessing the need of ZnO as electron transport layer. Solar Energy, 2018, 160, 396-403.	6.1	16
61	Screen printed PEDOT:PSS films as transparent electrode and its application in organic solar cells on opaque substrates. Journal of Materials Science: Materials in Electronics, 2018, 29, 11030-11038.	2.2	16
62	Electrophoretic deposition of nanocrystalline hydroxyapatite on Ti6Al4V/TiO ₂ substrate. Journal of Coatings Technology Research, 2013, 10, 263-275.	2.5	15
63	Effect of sintering temperature on structure and properties of GaFeO ₃ . Journal of Alloys and Compounds, 2018, 737, 646-654.	5.5	15
64	Effects of site disorder, off-stoichiometry and epitaxial strain on the optical properties of magnetoelectric gallium ferrite. Journal of Physics Condensed Matter, 2012, 24, 435501.	1.8	14
65	Suppression of grain boundary relaxation in Zr-doped BiFeO ₃ thin films. Journal of Applied Physics, 2014, 115, .	2.5	14
66	Buffer layers in inverted organic solar cells and their impact on the interface and device characteristics: An experimental and modeling analysis. Organic Electronics, 2016, 37, 228-238.	2.6	14
67	Temperature dependent electron paramagnetic resonance study on magnetoelectric YCrO ₃ . Journal of Physics Condensed Matter, 2017, 29, 495805.	1.8	14
68	Origin of ferroelectricity in orthorhombic LuFeO_3 . Physical Review B, 2019, 100, .	3.2	14
69	Significant reduction in the leakage current of Cr-doped GaFeO ₃ synthesized by sol-gel method. Applied Physics A: Materials Science and Processing, 2017, 123, 1.	2.3	13
70	Comparative wear performance of titanium based coatings for automotive applications using exhaust gas recirculation. Surface and Coatings Technology, 2007, 201, 6182-6188.	4.8	12
71	Engineering polarization rotation in ferroelectric bismuth titanate. Applied Physics Letters, 2013, 102, .	3.3	12
72	Room temperature multiferroism in polycrystalline thin films of gallium ferrite. Journal of Alloys and Compounds, 2017, 721, 593-599.	5.5	12

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73	Improved ferroelectric response of pulsed laser deposited BiFeO ₃ -PbTiO ₃ thin films around morphotropic phase boundary with interfacial PbTiO ₃ buffer layer. Journal of Applied Physics, 2020, 127, .	2.5	12
74	Rapid Involution of Large Cardiac Rhabdomyomas With Everolimus Therapy. World Journal for Pediatric & Congenital Heart Surgery, 2021, 12, 426-429.	0.8	12
75	Effect of isovalent non-magnetic Fe-site doping on the electronic structure and spontaneous polarization of BiFeO ₃ . Journal of Applied Physics, 2015, 117, 184104.	2.5	11
76	The combined effect of mechanical strain and electric field cycling on the ferroelectric performance of P(VDF-TrFE) thin films on flexible substrates and underlying mechanisms. Physical Chemistry Chemical Physics, 2016, 18, 29478-29485.	2.8	11
77	One-Step Synthesis of New Electron Acceptor for High Efficiency Solution Processable Organic Solar Cells. Journal of Physical Chemistry C, 2017, 121, 26615-26621.	3.1	11
78	Low-Temperature Microwave Processed TiO ₂ as an Electron Transport Layer for Enhanced Performance and Atmospheric Stability in Planar Perovskite Solar Cells. ACS Applied Energy Materials, 2022, 5, 2679-2696.	5.1	11
79	Interface morphology driven control of electrical properties of P(VDF-TrFE) and PMMA blend MIM capacitors. Organic Electronics, 2014, 15, 3811-3817.	2.6	10
80	Temperature dependent X-ray diffraction and Raman spectroscopy studies of polycrystalline YCrO ₃ ceramics across the T _C ~ 460 K. Journal of Raman Spectroscopy, 2020, 51, 537-545.	2.5	10
81	Structure and Properties of Magnetoelectric Gallium Ferrite: A Brief Review. Ferroelectrics, 2014, 473, 154-170.	0.6	9
82	Large ferroelectric polarization of chemical solution processed BiFeO ₃ -PbTiO ₃ thin films. Solid State Communications, 2014, 177, 103-107.	1.9	9
83	Aging and memory effect in magnetoelectric gallium ferrite single crystals. Journal of Magnetism and Magnetic Materials, 2015, 375, 49-53.	2.3	9
84	Incidence and factors influencing the spontaneous closure of Fontan fenestration. Congenital Heart Disease, 2018, 13, 776-781.	0.2	9
85	National Survey of Pediatric Care Providers: Assessing Time and Impact of Coding and Documentation in Physician Practice. Clinical Pediatrics, 2018, 57, 1300-1303.	0.8	8
86	Novel Low-Temperature Synthesis of Ferroelectric Neodymium-Doped Bismuth Titanate Nanoparticles. Journal of the American Ceramic Society, 2007, 90, 1295-1298.	3.8	7
87	Modeling of degradation in normal and inverted OSC devices. Solar Energy Materials and Solar Cells, 2019, 191, 329-338.	6.2	7
88	A Rare Adrenal Mass in a 3-Month-Old: A Case Report and Literature Review. Case Reports in Pediatrics, 2017, 2017, 1-5.	0.4	6
89	Establishment of Myocardial Strain Measurement Data in Pediatric Patients Without Structural Heart Disease: A Single Center Study. Pediatric Cardiology, 2020, 41, 892-898.	1.3	6
90	An investigation in InGaO ₃ (ZnO) _m pellets as cause of variability in thin film transistor characteristics. Bulletin of Materials Science, 2011, 34, 447-454.	1.7	5

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91	Control of electrical leakage in magneto-electric gallium ferrite via aliovalent substitution. Journal of the American Ceramic Society, 2019, 102, 7414-7427.	3.8	5
92	Pediatric Resident Attitudes and Knowledge of Critical Congenital Heart Disease Screening. Pediatric Cardiology, 2016, 37, 1137-1140.	1.3	4
93	Solution-Processed Organic Solar Cells Using New Electron Acceptor Derived from Naphthalene and Fluorene Unit. ChemistrySelect, 2017, 2, 7913-7917.	1.5	4
94	Nd and Ru co-doped bismuth titanate polycrystalline thin films with improved ferroelectric properties. Journal Physics D: Applied Physics, 2018, 51, 055301.	2.8	4
95	Epitaxial Growth of Fully a -/ b -axis Oriented SrBi 2 Ta 2 O 9 Films. Integrated Ferroelectrics, 2002, 44, 1-8.	0.7	3
96	Growth and characterization of pulsed-laser-deposited polycrystalline Bi _{3.33} Sm _{0.67} Ti ₃ O ₁₂ ferroelectric thin films. Materials Letters, 2005, 59, 2583-2587.	2.6	3
97	Photovoltaic effect in arylenevinylene-co-pyrrolenevinylene (AVPV). Solar Energy Materials and Solar Cells, 2009, 93, 211-214.	6.2	3
98	Optical anisotropy in bismuth titanate: An experimental and theoretical study. Journal of Applied Physics, 2014, 115, 133509.	2.5	3
99	High temperature X-ray diffraction, Raman spectroscopy and dielectric studies on yttrium orthochromites. AIP Conference Proceedings, 2016, , .	0.4	3
100	It Is Not Always Sepsis: Fatal Tachypnea in a Newborn. Case Reports in Pediatrics, 2018, 2018, 1-3.	0.4	3
101	Synthesis, growth, and characterizations of CuO single crystal. AIP Conference Proceedings, 2018, , .	0.4	3
102	Temperature dependent structural and electrical analysis of Cr-doped multiferroic GaFeO ₃ ceramics. Materials Research Express, 2019, 6, 115704.	1.6	3
103	Does myocardial strain remain abnormal long after normalization of ejection fraction in patients with acute myocarditis?. Echocardiography, 2019, 36, 609-612.	0.9	3
104	Pulsed Laser Deposition of Epitaxial SrBi 2 Ta 2 O 9 Films with Controlled Orientation. Ferroelectrics, 2002, 268, 89-94.	0.6	2
105	Inkjet printed PEDOT:PSS for organic devices. , 2012, , .		2
106	Composition-dependent structural and Raman spectroscopic studies on Y _{1-x} HoxCrO ₃ (0 ≤ x ≤ 0.1). AIP Conference Proceedings, 2015, , .	0.4	2
107	Temperature and grain size effect on electrical properties of gallium ferrite polycrystalline ceramic. AIP Conference Proceedings, 2017, , .	0.4	2
108	Effect of cooling conditions on the magnetic structure of multiferroic BiFeO ₃ synthesized by mechanical activation. Hyperfine Interactions, 2008, 187, 81-86.	0.5	1

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109	Structural investigation of multiferroic BiFeO ₃ -PbTiO ₃ solid solution. , 2014, , .		1
110	Electrical and magnetic characterization of multiferroic BiFeO ₃ -PbTiO ₃ thin films. AIP Conference Proceedings, 2015, , .	0.4	1
111	Unilateral lung agenesis, hiatal hernia and atrioventricular septal defect: a rare combination of congenital anomalies. BMJ Case Reports, 2018, 2018, bcr-2018-224382.	0.5	1
112	DEPOSITION AND CHARACTERIZATION OF PULSED-LASER-DEPOSITED AND CHEMICAL-SOLUTION-DERIVED SM-SUBSTITUTED BISMUTH TITANATE FILMS. Integrated Ferroelectrics, 2006, 79, 113-121.	0.7	0
113	Understanding degradation mechanism of bulk heterojunction organic photovoltaic devices. , 2012, , .		0
114	Microstructure and interfacial chemistry of pure and La-doped BiFeO ₃ thin films. Microscopy Research and Technique, 2013, 76, 1304-1309.	2.2	0
115	Effect of Zn doping on structural and ferroelectric properties of GaFeO ₃ for futuristic spintronic applications. , 2018, , .		0
116	Study of structural and magnetic characterization of polycrystalline Y _{0.5} Ho _{0.5} CrO ₃ . AIP Conference Proceedings, 2018, , .	0.4	0
117	Preliminary Investigation Into Comparative Performance of Titanium Based Coatings for Automotive Applications Using Biodiesel Blend and Diesel. , 2006, , .		0