Desheng Fu

List of Publications by Year
in descending order

105 papers	2,606 citations	186265 28 h-index	206112 48 g-index
111 all docs	111 docs citations	111 times ranked	2640 citing authors

#	Article	IF	Citations
1	Pb(Mg1/3Nb2/3)O3-PbTiO3 Crystals with Enhanced Dielectric and Piezoelectric Properties and Perovskite Stability. Journal of Physical Chemistry Letters, 2010, 1, 1451-1455.	7.8	256
2	AgNbO3: A lead-free material with large polarization and electromechanical response. Applied Physics Letters, 2007, 90, 252907.	3.3	229
3	Structure of Ferroelectric Silver Niobate AgNbO₃. Chemistry of Materials, 2011, 23, 1643-1645.	6.7	152
4	Anomalous Phase Diagram of Ferroelectric<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mo stretchy="false">(</mml:mo><mml:mi>Ba</mml:mi><mml:mo>,</mml:mo><mml:mi>Ca</mml:mi><mml:mo) Tj ET Q q 0 0 0 rg /R7 gs BT /Overlo Crystals with Giant Electromechanical Response. Physical Review Letters, 2008, 100, 227601.	7.8	81
5	Origin of Giant Dielectric Response in Nonferroelectric CaCu₃Ti₄O₁₂: Inhomogeneous Conduction Nature Probed by Atomic Force Microscopy. Chemistry of Materials, 2008, 20, 1694-1698.	6.7	77
6	High-Pressure Synthesis and Correlation between Structure, Magnetic, and Dielectric Properties in LiNbO₃-Type MnMO₃ (M = Ti, Sn). Inorganic Chemistry, 2011, 50, 6392-6398.	4.0	77
7	Crystal Growth and Magnetic Properties of BaCo2V2O8. Chemistry of Materials, 2005, 17, 2924-2926.	6.7	76
8	Positive and Negative Magnetodielectric Effects in A-Site Ordered (BiMn₃)Mn₄O₁₂ Perovskite. Journal of the American Chemical Society, 2008, 130, 14948-14949.	13.7	60
9	Crystal growth and piezoelectricity of BaTiO3â€“CaTiO3 solid solution. Applied Physics Letters, 2008, 93, .	3.3	59
10	Raman scattering study of the soft mode in Pb(Mg_{1/3}Nb_{2/3})O₃. Journal of Raman Spectroscopy, 2011, 42, 706-714.	2.5	58
11	Dielectric, ferroelectric, and piezoelectric behaviors of AgNbO3â€“KNbO3 solid solution. Journal of Applied Physics, 2009, 106, .	2.5	55
12	Thickness dependence of stress in lead titanate thin films deposited on Pt-coated Si. Applied Physics Letters, 2000, 77, 1532-1534.	3.3	52
13	High-piezoelectric behavior of c-axis-oriented lead zirconate titanate thin films with composition near the morphotropic phase boundary. Applied Physics Letters, 2002, 80, 3572-3574.	3.3	51
14	Size-induced phase transition inPbTiO3nanocrystals: Raman scattering study. Physical Review B, 2000, 62, 3125-3129.	3.2	48
15	Ferro- and piezoelectric properties of polar-axis-oriented CaBi4Ti4O15 films. Applied Physics Letters, 2004, 84, 3771-3773.	3.3	46
16	Piezoelectric properties of lithium modified silver niobate perovskite single crystals. Applied Physics Letters, 2008, 92, .	3.3	44
17	Lattice distortion under an electric field in BaTiO₃piezoelectric single crystal. Journal of Physics Condensed Matter, 2009, 21, 215903.	1.8	43
18	Sub-picosecond photo-induced displacive phase transition in two-dimensional MoTe2. Npj 2D Materials and Applications, 2020, 4, .	7.9	43

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19	Grain Size Effect on Dielectric and Piezoelectric Properties of Alkoxy-Derived BaTiO3-Based Thin Films. Japanese Journal of Applied Physics, 2004, 43, 6525-6529.	1.5	42
20	Preparation of hydroxyapatiteâ€“ferrite composite particles by ultrasonic spray pyrolysis. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2010, 173, 195-198.	3.5	42
21	Effect of PbTiO3Seeding Layer on the Growth of Sol-Gel-Derived Pb(Zr0.53Ti0.47)O3Thin Film. Japanese Journal of Applied Physics, 1998, 37, 5128-5131.	1.5	41
22	Invariant lattice strain and polarization in BaTiO₃â€“CaTiO₃ferroelectric alloys. Journal of Physics Condensed Matter, 2010, 22, 052204.	1.8	41
23	Ferroelectricity and electromechanical coupling in (1 â˜ x)AgNbO3-xNaNbO3 solid solutions. Applied Physics Letters, 2011, 99, .	3.3	40
24	Dynamics of nanoscale polarization backswitching in tetragonal lead zirconate titanate thin film. Applied Physics Letters, 2003, 82, 2130-2132.	3.3	38
25	Discovery of Leadâ€Free Perovskites for Highâ€Performance Solar Cells via Machine Learning: Ultrabroadband Absorption, Low Radiative Combination, and Enhanced Thermal Conductivities. Advanced Science, 2022, 9, e2103648.	11.2	35
26	Phonon mode behaviours of PbTiO3thin films deposited on Pt/Si substrates. Journal of Physics Condensed Matter, 2000, 12, 399-414.	1.8	34
27	Platinum-assisted phase transition in bismuth-based layer-structured ferroelectric CaBi4Ti4O15 thin films. Applied Physics Letters, 2002, 81, 3227-3229.	3.3	31
28	The electric field induced ferroelectric phase transition of AgNbO3. Journal of Applied Physics, 2016, 119, .	2.5	31
29	Observation of Piezoelectric Relaxation in Ferroelectric Thin Films by Continuous Charge Integration. Japanese Journal of Applied Physics, 2001, 40, 5683-5686.	1.5	29
30	Direct Observation of Ferroelectricity in Quasi-Zero-Dimensional Barium Titanate Nanoparticles. Small, 2006, 2, 1427-1431.	10.0	26
31	Artificially controlled magnetic domain structures in ferromagnetic dotsâ•ferroelectric heterostructures. Journal of Applied Physics, 2009, 105, 07D901.	2.5	25
32	Ferroelectricity of Li-doped silver niobate (Ag, Li)NbO₃. Journal of Physics Condensed Matter, 2011, 23, 075901.	1.8	25
33	Residual stress in lead titanate thin film on different substrates. Journal of the European Ceramic Society, 2004, 24, 1669-1672.	5.7	24
34	Electrical voltage manipulation of ferromagnetic microdomain structures in a ferromagnetic/ferroelectric hybrid structure. Journal of Applied Physics, 2007, 101, 09F512.	2.5	22
35	First-Principles Study of Point Defect Formation in AgNbO₃. Japanese Journal of Applied Physics, 2013, 52, 09KF08.	1.5	22
36	Polarization fluctuations in the perovskite-structured ferroelectric <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>AgNb</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2018, 97, .	3.2	20

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37	Preparation of (Y,Yb)MnO3/Y2O3/Si (MFIS) Structure by Chemical Solution Deposition Method. Japanese Journal of Applied Physics, 2003, 42, 6007-6010.	1.5	19
38	High piezoelectric response in polar-axis-oriented CaBi4Ti4O15 ferroelectric thin films. Applied Physics Letters, 2004, 85, 3519-3521.	3.3	18
39	Ferroelectricity in NaNbO₃: Revisited. Ferroelectrics, 2010, 401, 51-55.	0.6	18
40	Phase diagram and piezoelectric response of (Ba_{1â^'x}Ca_x)(Zr_{0.1}Ti_{0.9})O₃solid solution. Journal of Physics Condensed Matter, 2013, 25, 425901.	1.8	18
41	Ferroelectric Property of Alkoxy-Derived YMnO3Films Crystallized in Argon. Japanese Journal of Applied Physics, 2003, 42, 5692-5695.	1.5	17
42	Chemical Approach Using Tailored Liquid Sources for Traditional and Novel Ferroelectric Thin Films. Japanese Journal of Applied Physics, 2002, 41, 6829-6835.	1.5	16
43	Piezoelectric Properties of CaBi4Ti4O15Ferroelectric Thin Films Investigated by Atomic Force Microscopy. Japanese Journal of Applied Physics, 2003, 42, 5994-5997.	1.5	16
44	Effect of rapid thermal annealing on residual stress in lead titanate thin film by chemical solution deposition. Ceramics International, 2004, 30, 1487-1491.	4.8	16
45	Investigation of Domain Switching and Retention in Oriented PbZr0.3Ti0.7O3Thin Film by Scanning Force Microscopy. Japanese Journal of Applied Physics, 2002, 41, 6724-6729.	1.5	15
46	Local Piezoelectric Response in Bismuth-Based Ferroelectric Thin Films Investigated by Scanning Force Microscopy. Japanese Journal of Applied Physics, 2002, 41, L1103-L1105.	1.5	15
47	Effect of built-in bias fields on the nanoscale switching in ferroelectric thin films. Applied Physics A: Materials Science and Processing, 2005, 80, 1067-1070.	2.3	14
48	Structure and dielectric properties of high-pressure perovskite-type oxyfluorides xKTiO2Fâ€“(1â^'x)BaTiO3. Journal of Applied Physics, 2008, 104, 044101.	2.5	14
49	Origin of the dielectric response in Ba0.767Ca0.233TiO3. Applied Physics Letters, 2012, 100, .	3.3	14
50	Successive crystallization of ferroelectric-based BaTi2O5 bulk glass studied by Raman scattering. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2008, 148, 48-52.	3.5	13
51	Fluorinated hexagonal 4H SrMnO₃: a locally disordered manganite. Journal of Materials Chemistry C, 2019, 7, 3560-3568.	5.5	13
52	Low-temperature crystallization of CSD-derived PZT thin film with laser annealing. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2010, 173, 89-93.	3.5	12
53	Effect of Stress Engineering on the Electrical Properties of BaTiO$_{3}$ Thin Film. Japanese Journal of Applied Physics, 2011, 50, 09NA03.	1.5	12
54	Preparation and Characterization of Alkoxide-Derived Lead-Free Piezoelectric Barium Zirconate Titanate Thin Films with Different Compositions. Japanese Journal of Applied Physics, 2010, 49, 09MA11.	1.5	11

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55	Long-Time Piezoelectric Relaxation in Lead Zirconate Titanate Thin Film. Japanese Journal of Applied Physics, 2002, 41, L580-L582.	1.5	10
56	The Critical Role of Stereochemically Active Lone Pair in Introducing High Temperature Ferroelectricity. Inorganic Chemistry, 2021, 60, 4068-4075.	4.0	10
57	Ferroelectric Properties of (Y,Yb)MnO₃ Thin Films Prepared Using Alkoxide Solutions. Key Engineering Materials, 2003, 248, 77-82.	0.4	9
58	Fabrication and Characterization of Ba(Ti,Zr)O3 Thin Films Through the Chemical Solution Deposition Process. Integrated Ferroelectrics, 2004, 64, 227-236.	0.7	9
59	A First-Principles Study of the Ferroelectric Phase of AgNbO₃. Japanese Journal of Applied Physics, 2012, 51, 09LE02.	1.5	9
60	Novel (Y,Yb)MnO3 Thin Films for FeRAM Application. Integrated Ferroelectrics, 2004, 65, 117-123.	0.7	8
61	Phonon Dynamics in BiFeO₃Studied by Raman Scattering. Ferroelectrics, 2010, 403, 187-190.	0.6	8
62	A First-Principles Study of the Ferroelectric Phase of AgNbO₃. Japanese Journal of Applied Physics, 2012, 51, 09LE02.	1.5	8
63	Conductive Boundary Layer in CaCu3Ti4O12with Giant-Dielectric-Response. Ferroelectrics, 2007, 347, 140-144.	0.6	7
64	Preparation of MgIn2O4Epitaxial Oxide Electrode with Spinel Structure and Heteroepitaxial Growth of BaTiO3â€“NiFe2O4Multiferroic Composite Thin Film. Japanese Journal of Applied Physics, 2009, 48, 09KB06.	1.5	7
65	Effects of Substrates on Alkoxy-Derived (Y,Yb)MnO 3 Thin Films. Integrated Ferroelectrics, 2002, 47, 91-100.	0.7	6
66	Compositional Dependence of Ferroelectric Properties for (Y,Yb)MnO3 Thin Films Prepared by Chemical Solution Deposition. Integrated Ferroelectrics, 2003, 52, 55-61.	0.7	6
67	Effects of Î²-diketone Addition on Crystallinity of Photo-Assisted Alkoxy-Derived Zirconia Thin Films. Key Engineering Materials, 2004, 269, 125-128.	0.4	6
68	Composition Dependence of Lead-Free Ferroelectric Ba(Ti,Zr)O₃ Thin Films Fabricated by Chemical Solution Deposition Process. Key Engineering Materials, 2004, 269, 57-60.	0.4	6
69	Covalency driven modulation of paramagnetism and development of lone pair ferroelectricity in multiferroic Pb3TeMn3P2O14. Physical Review B, 2020, 101, .	3.2	6
70	Frequency Dependence of Polarization Hysteresis Loop in CaBi4 Ti4 O14 Ferroelectric Thin Films. Integrated Ferroelectrics, 2004, 61, 19-23.	0.7	5
71	Current Status of Bi-Based Precursors for Integrated Ferroelectrics. Integrated Ferroelectrics, 2004, 62, 133-140.	0.7	5
72	Effect of amorphous TiO2 buffer layer on the phase formation of CaBi4Ti4O15 ferroelectric thin films. Applied Physics A: Materials Science and Processing, 2005, 81, 861-864.	2.3	5

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73	Structure and Ferroelectric Properties of Alkoxy-Derived Ca2Bi4Ti5O18Thin Films on Pt(111)/TiOx/SiO2/Si(100). Japanese Journal of Applied Physics, 2002, 41, 2110-2114.	1.5	4
74	Observation of Domain Structures in Bi-Based CaBi 4 Ti 4 O 15 Thin Films by Scanning Force Microscopy. Ferroelectrics, 2003, 291, 49-54.	0.6	4
75	In SituRaman Scattering Study on Successive Crystallization of Bulk BaTi2O5Glass. Ferroelectrics, 2007, 346, 156-161.	0.6	4
76	Reply to Comment on â€œOrigin of Giant Dielectric Response in Nonferroelectric CaCu3Ti4O12: Inhomogeneous Conduction Nature Probed by Atomic Force Microscopyâ€• Chemistry of Materials, 2008, 20, 6286-6287.	6.7	4
77	Temperature Evolution of the Optical Phonons in Pb(Ni1/3Nb2/3)O3 Single Crystals Studied by Raman Scattering. Ferroelectrics, 2008, 367, 67-72.	0.6	4
78	Microstructure and electrical properties of BaTiO3 thin films by modified CSD. Journal of the Ceramic Society of Japan, 2011, 119, 498-501.	1.1	4
79	Large and temperature-independent piezoelectric response in Pb(Mg_{1/3}Nb_{2/3})O₃-BaTiO₃-PbTiO₃. Applied Physics Letters, 2012, 101, 192901.	3.3	4
80	Local structure analysis of NaNbO3and AgNbO3modified by Li substitution. Japanese Journal of Applied Physics, 2016, 55, 10TC04.	1.5	4
81	Raman Studies of the Effects of Nb Dopant on the Ferroelectric Properties in Lead Titanate Thin Film. Japanese Journal of Applied Physics, 2000, 39, 5687-5690.	1.5	3
82	Piezoelectric Responses of Highly-Oriented Tetragonal Pb(Zr 0.4 Ti 0.6)O 3 Thin Films. Ferroelectrics, 2003, 292, 119-125.	0.6	3
83	Construction of MFIS Structure Using Alkoxy-Derived (Y,Yb)MnO₃ Thin Films. Key Engineering Materials, 2004, 269, 49-52.	0.4	3
84	Crystal Phase and Orientation Control in Integrated Ferroelectric CaBi₄Ti₄O₁₅ Using a Tailored Liquid of Alkoxides. International Journal of Applied Ceramic Technology, 2005, 2, 64-72.	2.1	3
85	Doping effect of Dy on leakage current and oxygen sensing property of SrTiO3 thin film prepared by PLD. Journal of the Ceramic Society of Japan, 2009, 117, 1004-1008.	1.1	3
86	Ferroelectricity in Silver Perovskite Oxides. , 2011, , .		3
87	Origin of temperature independent piezoelectric coefficient in Pb(Mg1/3Nb2/3)O3-BaTiO3-PbTiO3 ceramics. Journal of Applied Physics, 2013, 114, 074105.	2.5	3
88	Local Structure Analysis of Nb-related Perovskite Materials. Transactions of the Materials Research Society of Japan, 2014, 39, 455-458.	0.2	3
89	Effect of Stress Engineering on the Electrical Properties of BaTiO3Thin Film. Japanese Journal of Applied Physics, 2011, 50, 09NA03.	1.5	3
90	Novel Ferroelectric Candidates in a Series of ABi4Ti4O15 (A: Alkaline Earth Metals) Thin Films. Integrated Ferroelectrics, 2003, 52, 3-10.	0.7	2

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91	Effect of Substrate on Growth Mechanism of Flower Structured InN Fabricated by APHCVD. Key Engineering Materials, 0, 445, 209-212.	0.4	2
92	Temperature dependence of lattice modes in PbTiO3thin film. Ferroelectrics, 2001, 259, 79-84.	0.6	1
93	Platinum-Accelerated Phase Transition in Bismuth-Based Layer-Structured Ferroelectric Thin Films. Materials Research Society Symposia Proceedings, 2002, 748, 1.	0.1	1
94	Characterization of (Y,Yb)MnO3/Y2O3/Si Prepared from Alkoxide Solutions. Ferroelectrics, 2005, 329, 107-111.	0.6	1
95	Electrical Properties of CSD-Derived Pb(Zr,Ti)O3Thin Films with Different Orientations and Compositions. Ferroelectrics, 2006, 335, 103-111.	0.6	1
96	Tunable Barium Strontium Titanate Thin Films by CSD. Key Engineering Materials, 0, 445, 156-159.	0.4	1
97	Special Issue Ceramics Integration. Integration of Ferroelectric Ca2Bi4Ti5O18 Thin Films on Pt-Passivated Si via Spin-Coating Technique.. Journal of the Ceramic Society of Japan, 2002, 110, 403-407.	1.3	0
98	Crystal Growth and Magnetic Properties of BaCo2V2O8.. ChemInform, 2005, 36, no.	0.0	0
99	Ferroelectric characteristics of silicate-bound Bi4Ti3O12 thin films. Applied Physics A: Materials Science and Processing, 2005, 80, 271-273.	2.3	0
100	Ferro- and Piezoelectric Properties of CaBi4Ti4O15 Films with Polar Axis Orientation. Integrated Ferroelectrics, 2005, 69, 143-149.	0.7	0
101	Dieletric anomalies in Pb0.7(1â^'x)Ca0.7xLa0.2TiO3. Applied Physics Letters, 2005, 87, 072904.	3.3	0
102	Comparison of Thermal Stability of Epitaxially Grown (La_{0.5}Sr_{0.5})CoO₃ and (La_{0.6}Sr_{0.4})MnO₃ Thin Films Deposited on Si Substrate. Key Engineering Materials, 2010, 445, 160-163.	0.4	0
103	Local Structure Analysis of Li-substituted (Bi_{0.5}Na_{0.5})TiO₃ and NaNbO₃. Transactions of the Materials Research Society of Japan, 2014, 39, 247-250.	0.2	0
104	First-principles study of the ferroelectric phase of AgNbO3. , 2019, , 137-159.		0
105	A capacitive displacement system for studying the piezoelectric strain and its temperature variation. Journal of Applied Physics, 2021, 129, 144101.	2.5	0