

# Desheng Fu

## List of Publications by Year in descending order

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docs citations

97  
times ranked

2943  
citing authors

#	ARTICLE	IF	CITATIONS
1	$\text{Pb}(\text{Mg}_{1-x}\text{O}_3)_x$ A Ferroelectric with Mu. Physical Review Letters, 2009, 103, 207601.	8.0	267
2	AgNbO <sub>3</sub> : A lead-free material with large polarization and electromechanical response. Applied Physics Letters, 2007, 90, 252907.	3.2	240
3	Structure of Ferroelectric Silver Niobate AgNbO <sub>3</sub> . Chemistry of Materials, 2011, 23, 1643-1645.	7.1	158
4	Anomalous Phase Diagram of Ferroelectric $\text{Ba}(\text{Ca}_{1-x}\text{O}_{12})_x$ /Overlo Crystals with Giant Electromechanical Response. Physical Review Letters, 2008, 100, 227601.	7.1	87
5	Origin of Giant Dielectric Response in Nonferroelectric $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ : Inhomogeneous Conduction Nature Probed by Atomic Force Microscopy. Chemistry of Materials, 2008, 20, 1694-1698.	7.1	78
6	High-Pressure Synthesis and Correlation between Structure, Magnetic, and Dielectric Properties in $\text{LiNbO}_3$ -Type $\text{MnMO}_3$ (M = Ti, Sn). Inorganic Chemistry, 2011, 50, 6392-6398.	4.2	78
7	Crystal Growth and Magnetic Properties of BaCo <sub>2</sub> V <sub>2</sub> O <sub>8</sub> . Chemistry of Materials, 2005, 17, 2924-2926.	7.1	77
8	Positive and Negative Magnetodielectric Effects in <i>A</i> -Site Ordered $(\text{BiMn}_3\text{Mn}_4\text{O}_{12})$ Perovskite. Journal of the American Chemical Society, 2008, 130, 14948-14949.	14.6	62
9	Crystal growth and piezoelectricity of BaTiO <sub>3</sub> –CaTiO <sub>3</sub> solid solution. Applied Physics Letters, 2008, 93, .	3.2	60
10	Raman scattering study of the soft mode in $\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3$ . Journal of Raman Spectroscopy, 2011, 42, 706-714.	2.5	58
11	Dielectric, ferroelectric, and piezoelectric behaviors of AgNbO <sub>3</sub> –KNbO <sub>3</sub> solid solution. Journal of Applied Physics, 2009, 106, .	2.3	56
12	Thickness dependence of stress in lead titanate thin films deposited on Pt-coated Si. Applied Physics Letters, 2000, 77, 1532-1534.	3.2	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.	3.2	51
14	Size-induced phase transition in PbTiO <sub>3</sub> nanocrystals: Raman scattering study. Physical Review B, 2000, 62, 3125-3129.	3.3	48
15	Ferro- and piezoelectric properties of polar-axis-oriented CaBi <sub>4</sub> Ti <sub>4</sub> O <sub>15</sub> films. Applied Physics Letters, 2004, 84, 3771-3773.	3.2	47
16	Piezoelectric properties of lithium modified silver niobate perovskite single crystals. Applied Physics Letters, 2008, 92, .	3.2	44
17	Lattice distortion under an electric field in BaTiO <sub>3</sub> piezoelectric single crystal. Journal of Physics Condensed Matter, 2009, 21, 215903.	1.9	44
18	Sub-picosecond photo-induced displacive phase transition in two-dimensional MoTe <sub>2</sub> . Npj 2D Materials and Applications, 2020, 4, .	8.3	44

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19	Invariant lattice strain and polarization in BaTiO <sub>3</sub> -CaTiO <sub>3</sub> ferroelectric alloys. <i>Journal of Physics Condensed Matter</i> , 2010, 22, 052204.	1.9	43
20	Grain Size Effect on Dielectric and Piezoelectric Properties of Alkoxy-Derived BaTiO <sub>3</sub> -Based Thin Films. <i>Japanese Journal of Applied Physics</i> , 2004, 43, 6525-6529.	1.6	42
21	Preparation of hydroxyapatite-ferrite composite particles by ultrasonic spray pyrolysis. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2010, 173, 195-198.	3.6	42
22	Ferroelectricity and electromechanical coupling in (1-x)AgNbO <sub>3</sub> (x)NaNbO <sub>3</sub> solid solutions. <i>Applied Physics Letters</i> , 2011, 99, .	3.2	42
23	Discovery of Lead-Free Perovskites for High-Performance Solar Cells via Machine Learning: Ultrabroadband Absorption, Low Radiative Combination, and Enhanced Thermal Conductivities. <i>Advanced Science</i> , 2022, 9, e2103648.	12.4	41
24	Dynamics of nanoscale polarization backswitching in tetragonal lead zirconate titanate thin film. <i>Applied Physics Letters</i> , 2003, 82, 2130-2132.	3.2	38
25	The electric field induced ferroelectric phase transition of AgNbO <sub>3</sub> . <i>Journal of Applied Physics</i> , 2016, 119, .	2.3	32
26	Platinum-assisted phase transition in bismuth-based layer-structured ferroelectric CaBi <sub>4</sub> Ti <sub>4</sub> O <sub>15</sub> thin films. <i>Applied Physics Letters</i> , 2002, 81, 3227-3229.	3.2	31
27	Direct Observation of Ferroelectricity in Quasi-Zero-Dimensional Barium Titanate Nanoparticles. <i>Small</i> , 2006, 2, 1427-1431.	11.2	26
28	Residual stress in lead titanate thin film on different substrates. <i>Journal of the European Ceramic Society</i> , 2004, 24, 1669-1672.	5.6	25
29	Artificially controlled magnetic domain structures in ferromagnetic dots-ferroelectric heterostructures. <i>Journal of Applied Physics</i> , 2009, 105, 07D901.	2.3	25
30	Ferroelectricity of Li-doped silver niobate (Ag, Li)NbO <sub>3</sub> . <i>Journal of Physics Condensed Matter</i> , 2011, 23, 075901.	1.9	25
31	First-Principles Study of Point Defect Formation in AgNbO <sub>3</sub> . <i>Japanese Journal of Applied Physics</i> , 2013, 52, 09KF08.	1.6	24
32	Polarization fluctuations in the perovskite-structured ferroelectric AgNb <sub>3</sub> O <sub>3</sub> . <i>Physical Review B</i> , 2018, 97, .	3.3	23
33	Preparation of (Y,Yb)MnO <sub>3</sub> /Y <sub>2</sub> O <sub>3</sub> /Si (MFIS) Structure by Chemical Solution Deposition Method. <i>Japanese Journal of Applied Physics</i> , 2003, 42, 6007-6010.	1.6	19
34	Phase diagram and piezoelectric response of (Ba <sub>1-x</sub> Ca <sub>x</sub> )(Zr <sub>0.1</sub> Ti <sub>0.9</sub> )O <sub>3</sub> solid solution. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 425901.	1.9	19
35	High piezoelectric response in polar-axis-oriented CaBi <sub>4</sub> Ti <sub>4</sub> O <sub>15</sub> ferroelectric thin films. <i>Applied Physics Letters</i> , 2004, 85, 3519-3521.	3.2	18
36	Ferroelectricity in NaNbO <sub>3</sub> : Revisited. <i>Ferroelectrics</i> , 2010, 401, 51-55.	0.6	18

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37	Ferroelectric Property of Alkoxy-Derived YMnO <sub>3</sub> Films Crystallized in Argon. Japanese Journal of Applied Physics, 2003, 42, 5692-5695.	1.6	17
38	Effect of rapid thermal annealing on residual stress in lead titanate thin film by chemical solution deposition. Ceramics International, 2004, 30, 1487-1491.	4.9	17
39	Chemical Approach Using Tailored Liquid Sources for Traditional and Novel Ferroelectric Thin Films. Japanese Journal of Applied Physics, 2002, 41, 6829-6835.	1.6	16
40	Piezoelectric Properties of CaBi <sub>4</sub> Ti <sub>4</sub> O <sub>15</sub> Ferroelectric Thin Films Investigated by Atomic Force Microscopy. Japanese Journal of Applied Physics, 2003, 42, 5994-5997.	1.6	16
41	Investigation of Domain Switching and Retention in Oriented PbZr <sub>0.3</sub> Ti <sub>0.7</sub> O <sub>3</sub> Thin Film by Scanning Force Microscopy. Japanese Journal of Applied Physics, 2002, 41, 6724-6729.	1.6	15
42	Local Piezoelectric Response in Bismuth-Based Ferroelectric Thin Films Investigated by Scanning Force Microscopy. Japanese Journal of Applied Physics, 2002, 41, L1103-L1105.	1.6	15
43	Structure and dielectric properties of high-pressure perovskite-type oxyfluorides xKTiO <sub>2</sub> F <sub>1-x</sub> BaTiO <sub>3</sub> . Journal of Applied Physics, 2008, 104, 044101.	2.3	14
44	Origin of the dielectric response in Ba <sub>0.767</sub> Ca <sub>0.233</sub> TiO <sub>3</sub> . Applied Physics Letters, 2012, 100, .	3.2	14
45	Fluorinated hexagonal 4H SrMnO <sub>3</sub> : a locally disordered manganite. Journal of Materials Chemistry C, 2019, 7, 3560-3568.	5.6	14
46	Successive crystallization of ferroelectric-based BaTi <sub>2</sub> O <sub>5</sub> bulk glass studied by Raman scattering. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2008, 148, 48-52.	3.6	13
47	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.	3.6	13
48	Effect of Stress Engineering on the Electrical Properties of BaTiO <sub>3</sub> Thin Film. Japanese Journal of Applied Physics, 2011, 50, 09NA03.	1.6	12
49	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.	1.6	11
50	The Critical Role of Stereochemically Active Lone Pair in Introducing High Temperature Ferroelectricity. Inorganic Chemistry, 2021, 60, 4068-4075.	4.2	11
51	Long-Time Piezoelectric Relaxation in Lead Zirconate Titanate Thin Film. Japanese Journal of Applied Physics, 2002, 41, L580-L582.	1.6	10
52	Fabrication and Characterization of Ba(Ti,Zr)O <sub>3</sub> Thin Films Through the Chemical Solution Deposition Process. Integrated Ferroelectrics, 2004, 64, 227-236.	0.7	9
53	A First-Principles Study of the Ferroelectric Phase of AgNbO <sub>3</sub> . Japanese Journal of Applied Physics, 2012, 51, 09LE02.	1.6	9
54	A First-Principles Study of the Ferroelectric Phase of AgNbO <sub>3</sub> . Japanese Journal of Applied Physics, 2012, 51, 09LE02.	1.6	9

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55	Novel (Y,Yb)MnO <sub>3</sub> Thin Films for FeRAM Application. <i>Integrated Ferroelectrics</i> , 2004, 65, 117-123.	0.7	8
56	Phonon Dynamics in BiFeO <sub>3</sub> Studied by Raman Scattering. <i>Ferroelectrics</i> , 2010, 403, 187-190.	0.6	8
57	Conductive Boundary Layer in CaCu <sub>3</sub> Ti <sub>4</sub> O <sub>12</sub> with Giant-Dielectric-Response. <i>Ferroelectrics</i> , 2007, 347, 140-144.	0.6	7
58	Preparation of MgIn <sub>2</sub> O <sub>4</sub> Epitaxial Oxide Electrode with Spinel Structure and Heteroepitaxial Growth of BaTiO <sub>3</sub> /NiFe <sub>2</sub> O <sub>4</sub> Multiferroic Composite Thin Film. <i>Japanese Journal of Applied Physics</i> , 2009, 48, 09KB06.	1.6	7
59	Effects of Substrates on Alkoxy-Derived (Y,Yb)MnO <sub>3</sub> Thin Films. <i>Integrated Ferroelectrics</i> , 2002, 47, 91-100.	0.7	6
60	Frequency Dependence of Polarization Hysteresis Loop in CaBi <sub>4</sub> Ti <sub>4</sub> O <sub>14</sub> Ferroelectric Thin Films. <i>Integrated Ferroelectrics</i> , 2004, 61, 19-23.	0.7	6
61	Covalency driven modulation of paramagnetism and development of lone pair ferroelectricity in multiferroic Pb <sub>3</sub> TeMn <sub>3</sub> P <sub>2</sub> O <sub>14</sub> . <i>Physical Review B</i> , 2020, 101, .	3.3	6
62	Current Status of Bi-Based Precursors for Integrated Ferroelectrics. <i>Integrated Ferroelectrics</i> , 2004, 62, 133-140.	0.7	5
63	In Situ Raman Scattering Study on Successive Crystallization of Bulk BaTi <sub>2</sub> O <sub>5</sub> Glass. <i>Ferroelectrics</i> , 2007, 346, 156-161.	0.6	5
64	Structure and Ferroelectric Properties of Alkoxy-Derived Ca <sub>2</sub> Bi <sub>4</sub> Ti <sub>5</sub> O <sub>18</sub> Thin Films on Pt(111)/TiO <sub>x</sub> /SiO <sub>2</sub> /Si(100). <i>Japanese Journal of Applied Physics</i> , 2002, 41, 2110-2114.	1.6	4
65	Observation of Domain Structures in Bi-Based CaBi <sub>4</sub> Ti <sub>4</sub> O <sub>15</sub> Thin Films by Scanning Force Microscopy. <i>Ferroelectrics</i> , 2003, 291, 49-54.	0.6	4
66	Reply to Comment on "Origin of Giant Dielectric Response in Nonferroelectric CaCu <sub>3</sub> Ti <sub>4</sub> O <sub>12</sub> : Inhomogeneous Conduction Nature Probed by Atomic Force Microscopy". <i>Chemistry of Materials</i> , 2008, 20, 6286-6287.	7.1	4
67	Temperature Evolution of the Optical Phonons in Pb(Ni <sub>1/3</sub> Nb <sub>2/3</sub> )O <sub>3</sub> Single Crystals Studied by Raman Scattering. <i>Ferroelectrics</i> , 2008, 367, 67-72.	0.6	4
68	Microstructure and electrical properties of BaTiO <sub>3</sub> thin films by modified CSD. <i>Journal of the Ceramic Society of Japan</i> , 2011, 119, 498-501.	1.3	4
69	Large and temperature-independent piezoelectric response in Pb(Mg <sub>1/3</sub> Nb <sub>2/3</sub> )O <sub>3</sub> -BaTiO <sub>3</sub> -PbTiO <sub>3</sub> . <i>Applied Physics Letters</i> , 2012, 101, 192901.	3.2	4
70	Origin of temperature independent piezoelectric coefficient in Pb(Mg <sub>1/3</sub> Nb <sub>2/3</sub> )O <sub>3</sub> -BaTiO <sub>3</sub> -PbTiO <sub>3</sub> ceramics. <i>Journal of Applied Physics</i> , 2013, 114, .	2.3	4
71	Local structure analysis of NaNbO <sub>3</sub> and AgNbO <sub>3</sub> modified by Li substitution. <i>Japanese Journal of Applied Physics</i> , 2016, 55, 10TC04.	1.6	4
72	Piezoelectric Responses of Highly-Oriented Tetragonal Pb(Zr <sub>0.4</sub> Ti <sub>0.6</sub> )O <sub>3</sub> Thin Films. <i>Ferroelectrics</i> , 2003, 292, 119-125.	0.6	3

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73	Crystal Phase and Orientation Control in Integrated Ferroelectric $\text{CaBi}_4\text{Ti}_4\text{O}_{15}$ Using a Tailored Liquid of Alkoxides. International Journal of Applied Ceramic Technology, 2005, 2, 64-72.	2.1	3
74	Doping effect of Dy on leakage current and oxygen sensing property of $\text{SrTiO}_3$ thin film prepared by PLD. Journal of the Ceramic Society of Japan, 2009, 117, 1004-1008.	1.3	3
75	Ferroelectricity in Silver Perovskite Oxides. , 0, , .		3
76	Local Structure Analysis of Nb-related Perovskite Materials. Transactions of the Materials Research Society of Japan, 2014, 39, 455-458.	0.2	3
77	Effect of Stress Engineering on the Electrical Properties of $\text{BaTiO}_3$ Thin Film. Japanese Journal of Applied Physics, 2011, 50, 09NA03.	1.6	3
78	Platinum-Accelerated Phase Transition in Bismuth-Based Layer-Structured Ferroelectric Thin Films. Materials Research Society Symposia Proceedings, 2002, 748, 1.	0.1	1
79	Characterization of $(\text{Y},\text{Yb})\text{MnO}_3/\text{Y}_2\text{O}_3/\text{Si}$ Prepared from Alkoxide Solutions. Ferroelectrics, 2005, 329, 107-111.	0.6	1
80	Electrical Properties of CSD-Derived $\text{Pb}(\text{Zr},\text{Ti})\text{O}_3$ Thin Films with Different Orientations and Compositions. Ferroelectrics, 2006, 335, 103-111.	0.6	1
81	Fluorination-Induced Asymmetry in Vacancy-Ordered Brownmillerite: Route to Multiferroic Behavior. Chemistry of Materials, 2023, 35, 991-998.	7.1	1
82	Special Issue Ceramics Integration. Integration of Ferroelectric $\text{Ca}_2\text{Bi}_4\text{Ti}_5\text{O}_{18}$ Thin Films on Pt-Passivated Si via Spin-Coating Technique.. Journal of the Ceramic Society of Japan, 2002, 110, 403-407.	1.3	0
83	Ferro- and Piezoelectric Properties of $\text{CaBi}_4\text{Ti}_4\text{O}_{15}$ Films with Polar Axis Orientation. Integrated Ferroelectrics, 2005, 69, 143-149.	0.7	0
84	Dielectric anomalies in $\text{Pb}_{0.7}(1-x)\text{Ca}_{0.7x}\text{La}_{0.2}\text{TiO}_3$ . Applied Physics Letters, 2005, 87, 072904.	3.2	0
85	Local Structure Analysis of Li-substituted $(\text{Bi}_{0.5}\text{Na}_{0.5})\text{Ti}_3$ and $\text{NaNbO}_3$ . Transactions of the Materials Research Society of Japan, 2014, 39, 247-250.	0.2	0
86	First-principles study of the ferroelectric phase of $\text{AgNbO}_3$ . , 2019, , 137-159.		0
87	A capacitive displacement system for studying the piezoelectric strain and its temperature variation. Journal of Applied Physics, 2021, 129, 144101.	2.3	0
88	Intrinsic Piezoelectricity of PZT. ACS Applied Electronic Materials, 0, , .	4.4	0