

Torsten Granzow

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

103
papers

6,538
citations

35
h-index

80
g-index

109
ext. papers

7,041
ext. citations

3.8
avg, IF

5.56
L-index

#	Paper	IF	Citations
103	Influence of substrate stress on in-plane and out-of-plane ferroelectric properties of PZT films. <i>Journal of Applied Physics</i> , 2022 , 131, 014101	2.5	4
102	Direct evidence for bulk photovoltaic charge transport in a ferroelectric polycrystalline film. <i>Scripta Materialia</i> , 2022 , 211, 114498	5.6	1
101	Influence of charged walls and defects on DC resistivity and dielectric relaxations in Cu-Cl boracite. <i>Applied Physics Letters</i> , 2021 , 119, 202904	3.4	
100	Enhancement of ferroelectricity and orientation in solution-derived hafnia thin films through heterogeneous grain nucleation. <i>Applied Physics Letters</i> , 2021 , 118, 162902	3.4	3
99	Solution-processed BiFeO ₃ thin films with low leakage current. <i>Journal of the European Ceramic Society</i> , 2021 , 41, 6449-6455	6	8
98	Influence of tensile vs. compressive stress on fatigue of lead zirconate titanate thin films. <i>Journal of the European Ceramic Society</i> , 2021 , 41, 6991-6999	6	4
97	Increasing bulk photovoltaic current by strain tuning. <i>Science Advances</i> , 2019 , 5, eaau9199	14.3	27
96	Dielectric tunability of ferroelectric barium titanate at millimeter-wave frequencies. <i>Physical Review B</i> , 2019 , 100,	3.3	4
95	Achieving large electric-field-induced strain in lead-free piezoelectrics. <i>Materials Research Letters</i> , 2019 , 7, 173-179	7.4	4
94	Unexpectedly high piezoelectricity of Sm-doped lead zirconate titanate in the Curie point region. <i>Scientific Reports</i> , 2018 , 8, 4120	4.9	18
93	Effect of optical damage resistant dopants on the dielectric properties of LiNbO ₃ : Insight from broadband impedance spectroscopy and Raman scattering. <i>Journal of Applied Physics</i> , 2018 , 123, 154105 ²⁻⁵		6
92	Broadband characterization of congruent lithium niobate from mHz to optical frequencies. <i>Journal Physics D: Applied Physics</i> , 2017 , 50, 36LT01	3	7
91	Polaron-mediated low-frequency dielectric anomaly in reduced LiNbO ₃ :Ti. <i>Applied Physics Letters</i> , 2017 , 111, 022903	3.4	7
90	Influence of defects and domain walls on dielectric and mechanical resonances in LiNbO ₃ . <i>Journal of Physics Condensed Matter</i> , 2016 , 28, 015901	1.8	14
89	Tunable polar dielectrics for applications at millimeter wavelengths 2016 ,		1
88	Orientation-Dependence of Thermal Depolarization and Phase Development in Bi _{1/2} Na _{1/2} TiO ₃ -BaTiO ₃ Single Crystals. <i>Journal of the American Ceramic Society</i> , 2015 , 98, 3966-3974	3.8	18
87	Cycling stability of lead-free BNT δ BBT and BNT δ BBT δ KNN multilayer actuators and bulk ceramics. <i>Journal of the European Ceramic Society</i> , 2014 , 34, 653-661	6	44

86	Anisotropy of ferroelectric behavior of $(1-x)\text{Bi}_{1/2}\text{Na}_{1/2}\text{TiO}_3-x\text{BaTiO}_3$ single crystals across the morphotropic phase boundary. <i>Journal of Applied Physics</i> , 2014 , 116, 044111	2.5	35
85	Electron paramagnetic resonance study of ZnO varistor material. <i>Journal of Physics Condensed Matter</i> , 2014 , 26, 115801	1.8	28
84	Field induced modification of defect complexes in magnesium-doped lithium niobate. <i>Journal of Applied Physics</i> , 2014 , 116, 244102	2.5	9
83	Aging in the relaxor and ferroelectric state of Fe-doped $(1-x)(\text{Bi}_{1/2}\text{Na}_{1/2})\text{TiO}_3-x\text{BaTiO}_3$ piezoelectric ceramics. <i>Journal of Applied Physics</i> , 2014 , 116, 104102	2.5	46
82	Electric-field-temperature phase diagram of the ferroelectric relaxor system $(1-x)\text{Bi}_{1/2}\text{Na}_{1/2}\text{TiO}_3-x\text{BaTiO}_3$ doped with manganese. <i>Journal of Applied Physics</i> , 2014 , 115, 194104	2.5	76
81	Bulk ZnO as piezotronic pressure sensor. <i>Applied Physics Letters</i> , 2014 , 105, 111604	3.4	27
80	Mechanical Confinement: An Effective Way of Tuning Properties of Piezoelectric Crystals. <i>Advanced Functional Materials</i> , 2012 , 22, 797-802	15.6	35
79	De-aging of Fe-doped lead-zirconate-titanate ceramics by electric field cycling: 180° vs. non-180° domain wall processes. <i>Journal of Applied Physics</i> , 2012 , 112, 034103	2.5	43
78	Influence of reducing atmosphere on the defect chemistry of lead lanthanum zirconate titanate (8/65/35). <i>Solid State Ionics</i> , 2012 , 228, 56-63	3.3	2
77	Frequency-dependence of large-signal properties in lead-free piezoceramics. <i>Journal of Applied Physics</i> , 2012 , 112, 014101	2.5	32
76	Influence of electric fields on the depolarization temperature of Mn-doped $(1-x)\text{Bi}_{1/2}\text{Na}_{1/2}\text{TiO}_3-x\text{BaTiO}_3$. <i>Journal of Applied Physics</i> , 2012 , 111, 014105	2.5	121
75	Effect of electrical and mechanical poling history on domain orientation and piezoelectric properties of soft and hard PZT ceramics. <i>Science and Technology of Advanced Materials</i> , 2011 , 12, 015002	7.1	7
74	Bipolar and Unipolar Fatigue of Ferroelectric BNT-Based Lead-Free Piezoceramics. <i>Journal of the American Ceramic Society</i> , 2011 , 94, 529-535	3.8	76
73	Stabilization of the Fatigue-Resistant Phase by CuO Addition in $(\text{Bi}_{1/2}\text{Na}_{1/2})\text{TiO}_3\text{BaTiO}_3$. <i>Journal of the American Ceramic Society</i> , 2011 , 94, 2473-2478	3.8	49
72	Effect of Ferroelectric Long-Range Order on the Unipolar and Bipolar Electric Fatigue in $\text{Bi}_{1/2}\text{Na}_{1/2}\text{TiO}_3$ -Based Lead-Free Piezoceramics. <i>Journal of the American Ceramic Society</i> , 2011 , 94, 3927-3933	2.8	74
71	Temperature and driving field dependence of fatigue processes in PZT bulk ceramics. <i>Acta Materialia</i> , 2011 , 59, 6083-6092	8.4	54
70	Domain switching energies: Mechanical versus electrical loading in La-doped bismuth ferrite/lead titanate. <i>Journal of Applied Physics</i> , 2011 , 109, 054109	2.5	30
69	Quantitative comparison between the degree of domain orientation and nonlinear properties of a PZT ceramic during electrical and mechanical loading. <i>Journal of Materials Research</i> , 2011 , 26, 1126-1132	2.5	11

68	Effect of electrical and mechanical poling history on domain orientation and piezoelectric properties of soft and hard PZT ceramics. <i>Science and Technology of Advanced Materials</i> , 2011 , 12, 015002 ^{7,1}		
67	Comparison of the Temperature-Dependent Ferroelastic Behavior of Hard and Soft Lead Zirconate Titanate Ceramics. <i>Journal of the American Ceramic Society</i> , 2010 , 93, 2850-2856	3.8	46
66	Temperature dependent switching mechanism of (Pb _{0.92} La _{0.08})(Zr _{0.65} Ti _{0.35})O ₃ investigated by small and large signal measurements. <i>Applied Physics Letters</i> , 2010 , 97, 132902	3.4	39
65	Effect of Nb-donor and Fe-acceptor dopants in (Bi _{1/2} Na _{1/2})TiO ₃ BaTiO ₃ (K _{0.5} Na _{0.5})NbO ₃ lead-free piezoceramics. <i>Journal of Applied Physics</i> , 2010 , 108, 014110	2.5	66
64	Effect of bipolar electric fatigue on polarization switching in lead-zirconate-titanate ceramics. <i>Journal of Applied Physics</i> , 2010 , 108, 014105	2.5	30
63	Dynamics of polarization reversal in virgin and fatigued ferroelectric ceramics by inhomogeneous field mechanism. <i>Physical Review B</i> , 2010 , 82,	3.3	66
62	PROCESSING AND PROPERTIES OF Na _{0.5} Bi _{0.5} TiO ₃ PIEZOELECTRIC CERAMICS MODIFIED WITH La, Mn AND Fe. <i>Functional Materials Letters</i> , 2010 , 03, 45-48	1.2	17
61	Barrier heights, polarization switching, and electrical fatigue in Pb(Zr,Ti)O ₃ ceramics with different electrodes. <i>Journal of Applied Physics</i> , 2010 , 108, 104106	2.5	36
60	Electric-field-induced antiferroelectric to ferroelectric phase transition in mechanically confined Pb _{0.99} Nb _{0.02} [(Zr _{0.57} Sn _{0.43}) _{0.94} Ti _{0.06}] _{0.98} O ₃ . <i>Physical Review B</i> , 2010 , 81,	3.3	59
59	Evaluation of domain wall motion in bipolar fatigued lead-zirconate-titanate: A study on reversible and irreversible contributions. <i>Journal of Applied Physics</i> , 2010 , 107, 104119	2.5	26
58	Study of the domain structure evolution in single crystals of relaxor ferroelectric Sr _{0.61} Ba _{0.39} Nb ₂ O ₆ :Ce ₁ . <i>Physics of the Solid State</i> , 2010 , 52, 346-351	0.8	8
57	Effect of tetragonal distortion on ferroelectric domain switching: A case study on La-doped BiFeO ₃ BbTiO ₃ ceramics. <i>Journal of Applied Physics</i> , 2010 , 108, 014103	2.5	97
56	Phase field simulation and experimental investigation of the electro-mechanical behavior of ferroelectrics. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , 2010 , 90, 623-632	1	17
55	Light-induced absorption in lead lanthanum zirconate titanate ceramics. <i>Journal of Applied Physics</i> , 2009 , 105, 024103	2.5	5
54	Origin of the large strain response in (K _{0.5} Na _{0.5})NbO ₃ -modified (Bi _{0.5} Na _{0.5})TiO ₃ BaTiO ₃ lead-free piezoceramics. <i>Journal of Applied Physics</i> , 2009 , 105, 094102	2.5	493
53	Effect of uniaxial stress on ferroelectric behavior of (Bi _{1/2} Na _{1/2})TiO ₃ -based lead-free piezoelectric ceramics. <i>Journal of Applied Physics</i> , 2009 , 106, 044107	2.5	76
52	Auxetic behavior under electrical loads in an induced ferroelectric phase. <i>Applied Physics Letters</i> , 2009 , 94, 042909	3.4	34
51	Degradation of lead-zirconate-titanate ceramics under different dc loads. <i>Journal of Applied Physics</i> , 2009 , 105, 104105	2.5	21

50	Acoustic emission study of domain wall motion and phase transition in $(1-x)(\text{Bi}_{0.5}\text{Na}_{0.5}\text{TiO}_3)_x\text{BaTiO}_3/(1-x)(\text{K}_{0.5}\text{Na}_{0.5}\text{NbO}_3)$ lead-free piezoceramics. <i>Scripta Materialia</i> , 2009 , 60, 251-253	5.6	28
49	High-Strain Lead-free Antiferroelectric Electrostrictors. <i>Advanced Materials</i> , 2009 , 21, 4716-4720	24	321
48	Perspective on the Development of Lead-free Piezoceramics. <i>Journal of the American Ceramic Society</i> , 2009 , 92, 1153-1177	3.8	2236
47	Correlation of small- and large-signal properties of lead zirconate titanate multilayer actuators. <i>Acta Materialia</i> , 2009 , 57, 77-86	8.4	41
46	Temperature-dependent ferroelastic switching of soft lead zirconate titanate. <i>Acta Materialia</i> , 2009 , 57, 4614-4623	8.4	135
45	Dielectric investigations of $0.945(\text{Bi}_{0.5}\text{Na}_{0.5})\text{TiO}_3-0.055\text{BaTiO}_3$. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2009 , 56, 1831-4	3.2	6
44	Aging of poled ferroelectric ceramics due to relaxation of random depolarization fields by space-charge accumulation near grain boundaries. <i>Physical Review B</i> , 2009 , 80,	3.3	53
43	Lead-free piezoceramics with giant strain in the system $\text{Bi}_{0.5}\text{Na}_{0.5}\text{TiO}_3/\text{BaTiO}_3/\text{K}_{0.5}\text{Na}_{0.5}\text{NbO}_3$. I. Structure and room temperature properties. <i>Journal of Applied Physics</i> , 2008 , 103, 034107	2.5	253
42	High-temperature poling of ferroelectrics. <i>Journal of Applied Physics</i> , 2008 , 104, 024116	2.5	75
41	Study of Domain Structure Kinetics in SBN Crystals Using Optical Methods. <i>Ferroelectrics</i> , 2008 , 374, 33-40	0.6	11
40	Detection of phase transitions in sodium bismuth titanate/barium titanate single crystals by acoustic emission. <i>Applied Physics Letters</i> , 2008 , 92, 012904	3.4	23
39	Current-voltage characteristics for lead zirconate titanate bulk ceramics. <i>Journal of Applied Physics</i> , 2008 , 104, 054120	2.5	12
38	Morphotropic phase boundary in $(1-x)(\text{Bi}_{0.5}\text{Na}_{0.5}\text{TiO}_3)_x\text{BaTiO}_3/(1-x)(\text{K}_{0.5}\text{Na}_{0.5}\text{NbO}_3)$ lead-free piezoceramics. <i>Applied Physics Letters</i> , 2008 , 92, 222902	3.4	204
37	Lead-free piezoceramics with giant strain in the system $\text{Bi}_{0.5}\text{Na}_{0.5}\text{TiO}_3/\text{BaTiO}_3/\text{K}_{0.5}\text{Na}_{0.5}\text{NbO}_3$. II. Temperature dependent properties. <i>Journal of Applied Physics</i> , 2008 , 103, 034108	2.5	180
36	Domain Switching During Electromechanical Poling in Lead Zirconate Titanate Ceramics. <i>Journal of the American Ceramic Society</i> , 2008 , 91, 1586-1590	3.8	9
35	Influence of radial stress on the poling behaviour of lead zirconate titanate ceramics. <i>Acta Materialia</i> , 2007 , 55, 675-680	8.4	37
34	Fatigue of Lead Zirconate Titanate Ceramics. I: Unipolar and DC Loading. <i>Journal of the American Ceramic Society</i> , 2007 , 90, 1081-1087	3.8	80
33	Fatigue of Lead Zirconate Titanate Ceramics II: Sesquipolar Loading. <i>Journal of the American Ceramic Society</i> , 2007 , 90, 1088-1093	3.8	28

32	PMNBT Ceramics Prepared By Spark Plasma Sintering. <i>Journal of the American Ceramic Society</i> , 2007 , 90, 1101-1106	3.8	32
31	Bipolar Fatigue Caused by Field Screening in Pb(Zr,Ti)O ₃ Ceramics. <i>Journal of the American Ceramic Society</i> , 2007 , 90, 070922001254005-???	3.8	20
30	Ferroelectric properties of lead zirconate titanate under radial load. <i>Applied Physics Letters</i> , 2007 , 91, 142904	3.4	11
29	Intensity dependent properties of photo-induced light scattering in ferroelectric Sr _{0.61} Ba _{0.39} Nb ₂ O ₆ :Ce. <i>Journal of Physics Condensed Matter</i> , 2006 , 18, 3037-3052	1.8	1
28	Electromechanical poling of piezoelectrics. <i>Applied Physics Letters</i> , 2006 , 88, 252907	3.4	43
27	Deaging of heat-treated iron-doped lead zirconate titanate ceramics. <i>Applied Physics Letters</i> , 2006 , 89, 262908	3.4	29
26	Temperature-dependent coherent oscillation in photorefractive relaxor strontium barium niobate. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2005 , 22, 1648	1.7	1
25	Evidence for light-induced hole polarons in LiNbO ₃ . <i>Physical Review Letters</i> , 2005 , 95, 067404	7.4	56
24	Polarons generated by laser pulses in doped LiNbO ₃ . <i>Physical Review B</i> , 2005 , 71,	3.3	38
23	Evolution of a stable polarization state in lead zirconate titanate ceramics by repeated partial switching. <i>Applied Physics Letters</i> , 2005 , 87, 212901	3.4	19
22	Photorefractive parametric scattering in the ferroelectric relaxor SBN: Phenomenological and application aspects. <i>Physical Review B</i> , 2005 , 71,	3.3	6
21	Discontinuous domain wall motion in the relaxor ferroelectric Sr _{0.61} Ba _{0.39} Nb ₂ O ₆ . <i>Europhysics Letters</i> , 2004 , 68, 733-739	1.6	10
20	Change from 3D-Ising to random field-Ising-model criticality in a uniaxial relaxor ferroelectric. <i>Physical Review Letters</i> , 2004 , 92, 065701	7.4	32
19	Angular and wavelength selectivity of parasitic holograms in cerium doped strontium barium niobate. <i>Journal of Applied Physics</i> , 2004 , 96, 6987-6993	2.5	9
18	Beam fanning used to study thermal disorder and decay of polar structures in the ferroelectric relaxor Sr _{0.61} Ba _{0.39} Nb ₂ O ₆ . <i>Europhysics Letters</i> , 2004 , 66, 48-54	1.6	5
17	Intensity and wavelength dependence of the photoconductivity in Cr-doped Sr _(mathsf_{0.61}) Ba _(mathsf_{0.39}) Nb _(mathsf_{2}) O _(mathsf_{6}) . <i>European Physical Journal B</i> , 2004 , 38, 19-24	1.2	5
16	Aging of the ferroelectric hysteresis in Ce-doped Strontium-Barium-Niobate observed by holographic phase gratings. <i>Applied Physics B: Lasers and Optics</i> , 2004 , 78, 211-215	1.9	9
15	Composition dependence of the phase transition temperature in Sr _x Ba _{1-x} Nb ₂ O ₆ . <i>Physica Status Solidi A</i> , 2004 , 201, R49-R52		55

14	Study of beam-fanning hysteresis in photo- refractive SBN:Ce: light-induced and primary scattering as functions of polar structure. <i>Applied Physics B: Lasers and Optics</i> , 2003 , 76, 407-416	1.9	19
13	Temperature dependent determination of the linear electrooptic coefficient r_{33} in Sr _{0.61} Ba _{0.39} Nb ₂ O ₆ single crystals by means of light-induced scattering. <i>Optics Communications</i> , 2003 , 218, 173-182	2	28
12	Influence of Ce and Cr doping on the pyroelectric behaviour of Sr _{0.61} Ba _{0.39} Nb ₂ O ₆ . <i>Physica Status Solidi A</i> , 2003 , 197, R2-R4		19
11	Temperature study of photoinduced wide-angle scattering in cerium-doped strontium barium niobate. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2003 , 20, 307	1.7	10
10	Probing polar nanoregions in Sr _{0.61} Ba _{0.39} Nb ₂ O ₆ via second-harmonic dielectric response. <i>Physical Review B</i> , 2003 , 68,	3.3	26
9	Beam fanning reversal in the ferroelectric relaxor Sr _{0.61} Ba _{0.39} Nb ₂ O ₆ at high external electric fields. <i>Journal of Applied Physics</i> , 2003 , 94, 4763	2.5	21
8	New parametric scattering in photorefractive Sr _{0.61} Ba _{0.39} Nb ₂ O ₆ :Cr. <i>Physical Review Letters</i> , 2003 , 91, 243903	7.4	8
7	Superspace approach applied to a neutron-diffraction study of the holographic data storage material Sr _{0.61} Ba _{0.39} Nb ₂ O ₆ . <i>Applied Physics A: Materials Science and Processing</i> , 2002 , 74, s963-s965	2.6	8
6	Polarization-based adjustable memory behavior in relaxor ferroelectrics. <i>Physical Review Letters</i> , 2002 , 89, 127601	7.4	47
5	Local electric-field-driven repoling reflected in the ferroelectric polarization of Ce-doped Sr _{0.61} Ba _{0.39} Nb ₂ O ₆ . <i>Applied Physics Letters</i> , 2002 , 80, 470-472	3.4	19
4	Evidence of random electric fields in the relaxor-ferroelectric Sr _{0.61} Ba _{0.39} Nb ₂ O ₆ . <i>Europhysics Letters</i> , 2002 , 57, 597-603	1.6	27
3	Photorefractive properties of Cr-doped Sr _{0.61} Ba _{0.39} Nb ₂ O ₆ related to crystal purity and doping concentration. <i>Applied Physics B: Lasers and Optics</i> , 2001 , 72, 661-666	1.9	29
2	Refractive Indices of Congruently Melting Sr _{0.61} Ba _{0.39} Nb ₂ O ₆ . <i>Physica Status Solidi A</i> , 2001 , 186, R13-R15		33
1	Influence of pinning effects on the ferroelectric hysteresis in cerium-doped Sr _{0.61} Ba _{0.39} Nb ₂ O ₆ . <i>Physical Review B</i> , 2001 , 63,	3.3	69