

# Torsten Granzow

## List of Publications by Year in descending order

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109  
papers

7,459  
citations

87723

38  
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51492

86  
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109  
all docs

109  
docs citations

109  
times ranked

4297  
citing authors

#	ARTICLE	IF	CITATIONS
1	Perspective on the Development of Lead-free Piezoceramics. Journal of the American Ceramic Society, 2009, 92, 1153-1177.	1.9	2,571
2	Origin of the large strain response in (K <sub>0.5</sub> Na <sub>0.5</sub> )NbO <sub>3</sub> -modified (Bi <sub>0.5</sub> Na <sub>0.5</sub> )TiO <sub>3</sub> -BaTiO <sub>3</sub> lead-free piezoceramics. Journal of Applied Physics, 2009, 105, .	1.1	550
3	High-strain Lead-free Antiferroelectric Electrostrictors. Advanced Materials, 2009, 21, 4716-4720.	11.1	364
4	Lead-free piezoceramics with giant strain in the system Bi <sub>0.5</sub> Na <sub>0.5</sub> TiO <sub>3</sub> -BaTiO <sub>3</sub> -K <sub>0.5</sub> Na <sub>0.5</sub> NbO <sub>3</sub> . I. Structure and room temperature properties. Journal of Applied Physics, 2008, 103, .	1.1	264
5	Morphotropic phase boundary in (1-x)Bi <sub>0.5</sub> Na <sub>0.5</sub> TiO <sub>3</sub> -xK <sub>0.5</sub> Na <sub>0.5</sub> NbO <sub>3</sub> lead-free piezoceramics. Applied Physics Letters, 2008, 92, .	1.5	224
6	Lead-free piezoceramics with giant strain in the system Bi <sub>0.5</sub> Na <sub>0.5</sub> TiO <sub>3</sub> -BaTiO <sub>3</sub> -K <sub>0.5</sub> Na <sub>0.5</sub> NbO <sub>3</sub> . II. Temperature dependent properties. Journal of Applied Physics, 2008, 103, .	1.1	192
7	Temperature-dependent ferroelastic switching of soft lead zirconate titanate. Acta Materialia, 2009, 57, 4614-4623.	3.8	151
8	Influence of electric fields on the depolarization temperature of Mn-doped (1-x)Bi <sub>1/2</sub> Na <sub>1/2</sub> TiO <sub>3</sub> -xBaTiO <sub>3</sub> . Journal of Applied Physics, 2012, 111, .	1.1	129
9	Effect of tetragonal distortion on ferroelectric domain switching: A case study on La-doped BiFeO <sub>3</sub> -PbTiO <sub>3</sub> ceramics. Journal of Applied Physics, 2010, 108, .	1.1	119
10	Fatigue of Lead Zirconate Titanate Ceramics. I: Unipolar and DC Loading. Journal of the American Ceramic Society, 2007, 90, 1081-1087.	1.9	98
11	Dynamics of polarization reversal in virgin and fatigued ferroelectric ceramics by inhomogeneous field mechanism. Physical Review B, 2010, 82, .	1.1	90
12	Electric-field-temperature phase diagram of the ferroelectric relaxor system (1-x)Bi <sub>1/2</sub> Na <sub>1/2</sub> TiO <sub>3</sub> -xBaTiO <sub>3</sub> doped with manganese. Journal of Applied Physics, 2014, 115, . <sup>86</sup>	1.1	86
13	High-temperature poling of ferroelectrics. Journal of Applied Physics, 2008, 104, .	1.1	85
14	Effect of uniaxial stress on ferroelectric behavior of (Bi <sub>1/2</sub> Na <sub>1/2</sub> )TiO <sub>3</sub> -based lead-free piezoelectric ceramics. Journal of Applied Physics, 2009, 106, .	1.1	83
15	Bipolar and Unipolar Fatigue of Ferroelectric BNT-based Lead-free Piezoceramics. Journal of the American Ceramic Society, 2011, 94, 529-535.	1.9	83
16	Effect of Ferroelectric Long-Range Order on the Unipolar and Bipolar Electric Fatigue in (Bi <sub>1/2</sub> Na <sub>1/2</sub> )TiO <sub>3</sub> -based Lead-free Piezoceramics. Journal of the American Ceramic Society, 2011, 94, 3927-3933.	1.9	82
17	Influence of pinning effects on the ferroelectric hysteresis in cerium-doped Sr <sub>0.61</sub> Ba <sub>0.39</sub> Nb <sub>2</sub> O <sub>6</sub> . Physical Review B, 2001, 63, .	1.1	75
18	Effect of Nb-donor and Fe-acceptor dopants in (Bi <sub>1/2</sub> Na <sub>1/2</sub> )TiO <sub>3</sub> -BaTiO <sub>3</sub> -K <sub>0.5</sub> Na <sub>0.5</sub> NbO <sub>3</sub> lead-free piezoceramics. Journal of Applied Physics, 2010, 108, .	1.1	75

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19	Electric-field-induced antiferroelectric to ferroelectric phase transition in mechanically confined $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle$		
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37	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, .	1.1	40
38	Barrier heights, polarization switching, and electrical fatigue in $\text{Pb}(\text{Zr},\text{Ti})\text{O}_3$ ceramics with different electrodes. <i>Journal of Applied Physics</i> , 2010, 108, .	1.1	39
39	Refractive Indices of Congruently Melting $\text{Sr}_{0.61}\text{Ba}_{0.39}\text{Nb}_2\text{O}_6$ . <i>Physica Status Solidi A</i> , 2001, 186, R13-R15.	1.7	38
40	Auxetic behavior under electrical loads in an induced ferroelectric phase. <i>Applied Physics Letters</i> , 2009, 94, 042909.	1.5	37
41	PMN/PT Ceramics Prepared By Spark Plasma Sintering. <i>Journal of the American Ceramic Society</i> , 2007, 90, 1101-1106.	1.9	36
42	Bipolar Fatigue Caused by Field Screening in $\text{Pb}(\text{Zr},\text{Ti})\text{O}_3$ Ceramics. <i>Journal of the American Ceramic Society</i> , 2007, 90, 070922001254005-???	1.9	36
43	Electron paramagnetic resonance study of ZnO varistor material. <i>Journal of Physics Condensed Matter</i> , 2014, 26, 115801.	0.7	36
44	Change from 3D-Ising to Random Field-Ising-Model Criticality in a Uniaxial Relaxor Ferroelectric. <i>Physical Review Letters</i> , 2004, 92, 065701.	2.9	35
45	Frequency-dependence of large-signal properties in lead-free piezoceramics. <i>Journal of Applied Physics</i> , 2012, 112, .	1.1	35
46	Unexpectedly high piezoelectricity of Sm-doped lead zirconate titanate in the Curie point region. <i>Scientific Reports</i> , 2018, 8, 4120.	1.6	35
47	Effect of bipolar electric fatigue on polarization switching in lead-zirconate-titanate ceramics. <i>Journal of Applied Physics</i> , 2010, 108, .	1.1	33
48	Photorefractive properties of Cr-doped $\text{Sr}_{0.61}\text{Ba}_{0.39}\text{Nb}_2\text{O}_6$ related to crystal purity and doping concentration. <i>Applied Physics B: Lasers and Optics</i> , 2001, 72, 661-666.	1.1	32
49	Fatigue of Lead Zirconate Titanate Ceramics II: Sesquipolar Loading. <i>Journal of the American Ceramic Society</i> , 2007, 90, 1088-1093.	1.9	32
50	Domain switching energies: Mechanical versus electrical loading in La-doped bismuth ferrite/lead titanate. <i>Journal of Applied Physics</i> , 2011, 109, .	1.1	32
51	Bulk ZnO as piezotronic pressure sensor. <i>Applied Physics Letters</i> , 2014, 105, .	1.5	31
52	Deaging of heat-treated iron-doped lead zirconate titanate ceramics. <i>Applied Physics Letters</i> , 2006, 89, 262908.	1.5	30
53	Acoustic emission study of domain wall motion and phase transition in $(1-x-y)\text{Bi}_0.5\text{Na}_0.5\text{TiO}_3-x\text{BaTiO}_3-y\text{K}_0.5\text{Na}_0.5\text{NbO}_3$ lead-free piezoceramics. <i>Scripta Materialia</i> , 2009, 60, 251-253.	2.6	30
54	Temperature dependent determination of the linear electrooptic coefficient $r_{33}$ in $\text{Sr}_{0.61}\text{Ba}_{0.39}\text{Nb}_2\text{O}_6$ single crystals by means of light-induced scattering. <i>Optics Communications</i> , 2003, 218, 173-182.	1.0	29

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55	Evidence of random electric fields in the relaxor-ferroelectric Sr <sub>0.61</sub> Ba <sub>0.39</sub> Nb <sub>2</sub> O <sub>6</sub> . Europhysics Letters, 2002, 57, 597-603.	0.7	28
56	Evaluation of domain wall motion in bipolar fatigued lead-zirconate-titanate: A study on reversible and irreversible contributions. Journal of Applied Physics, 2010, 107, 104119.	1.1	28
57	Probing polar nanoregions in Sr <sub>0.61</sub> Ba <sub>0.39</sub> Nb <sub>2</sub> O <sub>6</sub> via second-harmonic dielectric response. Physical Review B, 2003, 68, .	1.1	27
58	Degradation of lead-zirconate-titanate ceramics under different dc loads. Journal of Applied Physics, 2009, 105, .	1.1	25
59	Beam fanning reversal in the ferroelectric relaxor Sr <sub>0.61</sub> Ba <sub>0.39</sub> Nb <sub>2</sub> O <sub>6</sub> at high external electric fields. Journal of Applied Physics, 2003, 94, 4763.	1.1	24
60	Detection of phase transitions in sodium bismuth titanate and barium titanate single crystals by acoustic emission. Applied Physics Letters, 2008, 92, 012904.	1.5	24
61	Evolution of a stable polarization state in lead zirconate titanate ceramics by repeated partial switching. Applied Physics Letters, 2005, 87, 212901.	1.5	22
62	Orientation dependence of Thermal Depolarization and Phase Development in Bi <sub>1/2</sub> Na <sub>1/2</sub> TiO <sub>3</sub> BaTiO <sub>3</sub> Single Crystals. Journal of the American Ceramic Society, 2015, 98, 3966-3974.	1.9	22
63	Influence of Ce and Cr doping on the pyroelectric behaviour of Sr <sub>0.61</sub> Ba <sub>0.39</sub> Nb <sub>2</sub> O <sub>6</sub> . Physica Status Solidi A, 2003, 197, R2-R4.	1.7	21
64	PROCESSING AND PROPERTIES OF Na <sub>0.5</sub> Bi <sub>0.5</sub> TiO <sub>3</sub> PIEZOELECTRIC CERAMICS MODIFIED WITH La, Mn AND Fe. Functional Materials Letters, 2010, 03, 45-48.	0.7	21
65	Local electric-field-driven repoling reflected in the ferroelectric polarization of Ce-doped Sr <sub>0.61</sub> Ba <sub>0.39</sub> Nb <sub>2</sub> O <sub>6</sub> . Applied Physics Letters, 2002, 80, 470-472.	1.5	20
66	Study of beam-fanning hysteresis in photo-refractive SBN:Ce: light-induced and primary scattering as functions of polar structure. Applied Physics B: Lasers and Optics, 2003, 76, 407-416.	1.1	20
67	Phase field simulation and experimental investigation of the electro-mechanical behavior of ferroelectrics. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2010, 90, 623-632.	0.9	19
68	Influence of defects and domain walls on dielectric and mechanical resonances in LiNbO <sub>3</sub> . Journal of Physics Condensed Matter, 2016, 28, 015901.	0.7	18
69	Solution-processed BiFeO <sub>3</sub> thin films with low leakage current. Journal of the European Ceramic Society, 2021, 41, 6449-6455.	2.8	17
70	Ferroelectric properties of lead zirconate titanate under radial load. Applied Physics Letters, 2007, 91, .	1.5	14
71	Current-voltage characteristics for lead zirconate titanate bulk ceramics. Journal of Applied Physics, 2008, 104, 054120.	1.1	12
72	Polaron-mediated low-frequency dielectric anomaly in reduced LiNbO <sub>3</sub> :Ti. Applied Physics Letters, 2017, 111, .	1.5	12

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73	Temperature study of photoinduced wide-angle scattering in cerium-doped strontium barium niobate. Journal of the Optical Society of America B: Optical Physics, 2003, 20, 307.	0.9	11
74	Study of Domain Structure Kinetics in SBN Crystals Using Optical Methods. Ferroelectrics, 2008, 374, 33-40.	0.3	11
75	Quantitative comparison between the degree of domain orientation and nonlinear properties of a PZT ceramic during electrical and mechanical loading. Journal of Materials Research, 2011, 26, 1126-1132.	1.2	11
76	Broadband characterization of congruent lithium niobate from mHz to optical frequencies. Journal Physics D: Applied Physics, 2017, 50, 36LT01.	1.3	11
77	Enhancement of ferroelectricity and orientation in solution-derived hafnia thin films through heterogeneous grain nucleation. Applied Physics Letters, 2021, 118, .	1.5	11
78	Discontinuous domain wall motion in the relaxor ferroelectric Sr <sub>0.61</sub> Ba <sub>0.39</sub> Nb <sub>2</sub> O <sub>6</sub> . Europhysics Letters, 2004, 68, 733-739.	0.7	10
79	Field induced modification of defect complexes in magnesium-doped lithium niobate. Journal of Applied Physics, 2014, 116, 244102.	1.1	10
80	Influence of tensile vs. compressive stress on fatigue of lead zirconate titanate thin films. Journal of the European Ceramic Society, 2021, 41, 6991-6999.	2.8	10
81	Superspace approach applied to a neutron-diffraction study of the holographic data storage material Sr <sub>0.61</sub> Ba <sub>0.39</sub> Nb <sub>2</sub> O <sub>6</sub> . Applied Physics A: Materials Science and Processing, 2002, 74, s963-s965.	1.1	9
82	New Parametric Scattering in Photorefractive Sr <sub>0.61</sub> Ba <sub>0.39</sub> Nb <sub>2</sub> O <sub>6</sub> :Cr. Physical Review Letters, 2003, 91, 243903.	2.9	9
83	Angular and wavelength selectivity of parasitic holograms in cerium doped strontium barium niobate. Journal of Applied Physics, 2004, 96, 6987-6993.	1.1	9
84	Aging of the ferroelectric hysteresis in Ce-doped Strontium-Barium-Niobate observed by holographic phase gratings. Applied Physics B: Lasers and Optics, 2004, 78, 211-215.	1.1	9
85	Domain Switching During Electromechanical Poling in Lead Zirconate Titanate Ceramics. Journal of the American Ceramic Society, 2008, 91, 1586-1590.	1.9	9
86	Effect of electrical and mechanical poling history on domain orientation and piezoelectric properties of soft and hard PZT ceramics. Science and Technology of Advanced Materials, 2011, 12, 015002.	2.8	9
87	Effect of optical damage resistant dopants on the dielectric properties of LiNbO <sub>3</sub> : Insight from broadband impedance spectroscopy and Raman scattering. Journal of Applied Physics, 2018, 123, .	1.1	9
88	Study of the domain structure evolution in single crystals of relaxor ferroelectric Sr <sub>0.61</sub> Ba <sub>0.39</sub> Nb <sub>2</sub> O <sub>6</sub> :Ce <sub>1</sub> . Physics of the Solid State, 2010, 52, 346-351.	0.2	8
89	Dielectric investigations of 0.945(Bi <sub>0.5</sub> Na <sub>0.5</sub> )TiO <sub>3</sub> -0.055BaTiO <sub>3</sub> . IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2009, 56, 1831-1834.	1.7	7
90	Intensity and wavelength dependence of the photoconductivity in Cr-doped Sr <sub>0.61</sub> Ba <sub>0.39</sub> Nb <sub>2</sub> O <sub>6</sub> . European Physical Journal B, 2004, 38, 19-24.	0.6	6

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91	Photorefractive parametric scattering in the ferroelectric relaxor SBN: Phenomenological and application aspects. Physical Review B, 2005, 71, .	1.1	6
92	Dielectric tunability of ferroelectric barium titanate at millimeter-wave frequencies. Physical Review B, 2019, 100, .	1.1	6
93	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. Europhysics Letters, 2004, 66, 48-54.	0.7	5
94	Light-induced absorption in lead lanthanum zirconate titanate ceramics. Journal of Applied Physics, 2009, 105, 024103.	1.1	5
95	Achieving large electric-field-induced strain in lead-free piezoelectrics. Materials Research Letters, 2019, 7, 173-179.	4.1	5
96	Influence of substrate stress on in-plane and out-of-plane ferroelectric properties of PZT films. Journal of Applied Physics, 2022, 131, 014101.	1.1	5
97	Direct evidence for bulk photovoltaic charge transport in a ferroelectric polycrystalline film. Scripta Materialia, 2022, 211, 114498.	2.6	5
98	Influence of reducing atmosphere on the defect chemistry of lead lanthanum zirconate titanate (8/65/35). Solid State Ionics, 2012, 228, 56-63.	1.3	2
99	Tunable polar dielectrics for applications at millimeter wavelengths. , 2016, , .		2
100	Effect of electrical and mechanical poling history on domain orientation and piezoelectric properties of soft and hard PZT ceramics. Science and Technology of Advanced Materials, 2011, 12, 015002.	2.8	2
101	Temperature-dependent coherent oscillation in photorefractive relaxor strontium barium niobate. Journal of the Optical Society of America B: Optical Physics, 2005, 22, 1648.	0.9	1
102	Intensity dependent properties of photo-induced light scattering in ferroelectric Sr0.61Ba0.39Nb2O6:Ce. Journal of Physics Condensed Matter, 2006, 18, 3037-3052.	0.7	1
103	Dielectric relaxations of lead zirconate titanate films up to millimeter-wave frequencies. Journal of the American Ceramic Society, 0, , .	1.9	1
104	Stress assisted electrical poling of ferroelectrics. Applications of Ferroelectrics, IEEE International Symposium on, 2007, , .	0.0	0
105	Unipolar and sesquipolar electrical fatigue in PZT. Applications of Ferroelectrics, IEEE International Symposium on, 2007, , .	0.0	0
106	Field-induced phase transitions in Bismuth-based perovskites: A new approach to lead-free high-strain piezoceramics. , 2008, , .		0
107	CH015: Current-voltage characteristics for PZT ceramics. , 2008, , .		0
108	Pinning effects and the dynamic behavior of ferroelectric domains in Sr0.61Ba0.39Nb2O6:Ce. Acta Crystallographica Section A: Foundations and Advances, 2000, 56, s374-s374.	0.3	0

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109	Influence of charged walls and defects on DC resistivity and dielectric relaxations in Cu-Cl boracite. Applied Physics Letters, 2021, 119, 202904.	1.5	0