

Semën V Gorfman

List of Publications by Year in descending order

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35
papers

846
citations

471509

17
h-index

477307

29
g-index

40
all docs

40
docs citations

40
times ranked

1014
citing authors

#	ARTICLE	IF	CITATIONS
1	Evidence for a non-rhombohedral average structure in the lead-free piezoelectric material $\text{Na}_{0.5}\text{Bi}_{0.5}\text{TiO}_3$. <i>Journal of Applied Crystallography</i> , 2010, 43, 1409-1414.	4.5	219
2	Induced giant piezoelectricity in centrosymmetric oxides. <i>Science</i> , 2022, 375, 653-657.	12.6	59
3	Observation of a low-symmetry phase in $\text{Na}_{0.5}\text{Bi}_{0.5}\text{TiO}_3$ crystals by optical birefringence microscopy. <i>Journal of Applied Crystallography</i> , 2012, 45, 444-452.	4.5	54
4	Horizontal Alignment of Chemical Vapor-Deposited SWNTs on Single-Crystal Quartz Surfaces: Further Evidence for Epitaxial Alignment. <i>Journal of Physical Chemistry C</i> , 2009, 113, 17087-17096.	3.1	36
5	Crystallography under External Electric Field. <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 2013, 639, 1953-1962.	1.2	31
6	Large piezoelectricity in electric-field modified single crystals of SrTiO_3 . <i>Applied Physics Letters</i> , 2016, 109, .	3.3	30
7	Time-resolved x-ray diffraction study of the piezoelectric crystal response to a fast change of an applied electric field. <i>Journal of Applied Physics</i> , 2010, 108, 064911.	2.5	29
8	On the symmetry of the morphotropic phase boundary in ferroelectric $\text{BiScO}_3\text{-PbTiO}_3$ system. <i>Applied Physics Letters</i> , 2009, 95, .	3.3	27
9	Picometer polar atomic displacements in strontium titanate determined by resonant X-ray diffraction. <i>Nature Communications</i> , 2018, 9, 178.	12.8	27
10	Sub-microsecond X-ray crystallography: techniques, challenges, and applications for materials science. <i>Crystallography Reviews</i> , 2014, 20, 210-232.	1.5	26
11	Topology and temperature dependence of the diffuse X-ray scattering in $\text{Na}_{0.5}\text{Bi}_{0.5}\text{TiO}_3$ ferroelectric single crystals. <i>Journal of Applied Crystallography</i> , 2015, 48, 1543-1550.	4.5	24
12	Local-scale structures across the morphotropic phase boundary in $\text{PbZr}_{1-x}\text{Ti}_x\text{O}_3$. <i>IUCr</i> , 2018, 5, 73-81.	2.2	24
13	Energy-dispersive Laue diffraction by means of a frame-store pnCCD. <i>Journal of Applied Crystallography</i> , 2009, 42, 1139-1146.	4.5	22
14	Multichannel FPGA-Based Data-Acquisition-System for Time-Resolved Synchrotron Radiation Experiments. <i>IEEE Transactions on Nuclear Science</i> , 2017, 64, 1320-1326.	2.0	22
15	X-ray diffraction study of the piezoelectric properties of BiB_3O_6 single crystals. <i>Zeitschrift Für Kristallographie</i> , 2007, 222, 396-401.	1.1	21
16	X-ray diffraction by a crystal in a permanent external electric field: electric-field-induced structural response in Li-GaPO_4 . <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2006, 62, 1-10.	0.3	18
17	Time-Resolved X-Ray Diffraction Reveals the Hidden Mechanism of High Piezoelectric Activity in a Uniaxial Ferroelectric. <i>Physical Review Letters</i> , 2015, 114, 097601.	7.8	17
18	Monoclinic distortion, polarization rotation and piezoelectricity in the ferroelectric $\text{Na}_{0.5}\text{Bi}_{0.5}\text{TiO}_3$. <i>IUCr</i> , 2018, 5, 417-427.	2.2	17

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19	X-ray scattering amplitude of an atom in a permanent external electric field. Acta Crystallographica Section A: Foundations and Advances, 2003, 59, 221-227.	0.3	16
20	X-ray diffraction by a crystal in a permanent external electric field: general considerations. Acta Crystallographica Section A: Foundations and Advances, 2005, 61, 387-396.	0.3	15
21	Ferroelectric domain wall dynamics characterized with X-ray photon correlation spectroscopy. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E6680-E6689.	7.1	15
22	Time and frequency-dependence of the electric field-induced phase transition in BaTiO ₃ -BiZn _{1/2} Ti _{1/2} O ₃ . Journal of Applied Physics, 2017, 122, .	2.5	14
23	Probing the intrinsic and extrinsic origins of piezoelectricity in lead zirconate titanate single crystals. Journal of Applied Crystallography, 2018, 51, 1396-1403.	4.5	14
24	A rapid two-dimensional data collection system for the study of ferroelectric materials under external applied electric fields. Journal of Applied Crystallography, 2016, 49, 1501-1507.	4.5	12
25	Combining high time and angular resolutions: time-resolved X-ray powder diffraction using a multi-channel analyser detector. Journal of Applied Crystallography, 2015, 48, 970-974.	4.5	11
26	A microcontroller for <i>in situ</i> single-crystal diffraction measurements with a PILATUS-2M detector under an alternating electric field. Journal of Applied Crystallography, 2017, 50, 975-977.	4.5	9
27	Cleavage and surface energies of LiNbO ₃ . Acta Materialia, 2020, 193, 338-349.	7.9	9
28	New method to measure domain-wall motion contribution to piezoelectricity: the case of PbZr _{0.65} Ti _{0.35} O ₃ ferroelectric. Journal of Applied Crystallography, 2020, 53, 1039-1050.	4.5	8
29	Intrinsic Ferroelectricity in Charge-Ordered Magnetite. Crystals, 2019, 9, 546.	2.2	5
30	Algorithms for target transformations of lattice basis vectors. Acta Crystallographica Section A: Foundations and Advances, 2020, 76, 713-718.	0.1	5
31	Geometrical prediction of cleavage planes in crystal structures. IUCr, 2021, 8, 793-804.	2.2	4
32	Electrically driven transient and permanent phase transformations in highly strained epitaxial BiFeO ₃ thin films. APL Materials, 2020, 8, .	5.1	2
33	Multipurpose diffractometer for <i>in situ</i> X-ray crystallography of functional materials. Journal of Applied Crystallography, 2021, 54, 914-923.	4.5	2
34	Identification of a coherent twin relationship from high-resolution reciprocal-space maps. Acta Crystallographica Section A: Foundations and Advances, 2022, 78, 158-171.	0.1	2
35	Measuring the Mean Inner Potential Of Bernal Graphite Using Off-axis Electron Holography. Microscopy and Microanalysis, 2021, 27, 694-697.	0.4	0