Sergei V. Kalinin

List of Publications by Citations

790 papers	32,877 citations	89 h-index	144 g-index
823 ext. papers	36,411 ext. citations	8.2 avg, IF	7.4 L-index

#	Paper	IF	Citations
790	Conduction at domain walls in oxide multiferroics. *Nature Materials*, **2009**, 8, 229-34	27	1048
789	Nanoscale mapping of ion diffusion in a lithium-ion battery cathode. *Nature Nanotechnology*, **2010**, 5, 749-54	28.7	460
788	Electric modulation of conduction in multiferroic Ca-doped BiFeO3 films. *Nature Materials*, **2009**, 8, 485-93	27	426
787	Imaging mechanism of piezoresponse force microscopy of ferroelectric surfaces. *Physical Review B*, **2002**, 65,	3.3	409
786	Polarization control of electron tunneling into ferroelectric surfaces. *Science*, **2009**, 324, 1421-5	33.3	398
785	The band excitation method in scanning probe microscopy for rapid mapping of energy dissipation on the nanoscale. *Nanotechnology*, **2007**, 18, 435503	3.4	383
784	Dual-frequency resonance-tracking atomic force microscopy. *Nanotechnology*, **2007**, 18, 475504	3.4	365
783	Local polarization dynamics in ferroelectric materials. *Reports on Progress in Physics*, **2010**, 73, 056502	14.4	341
782	Switching spectroscopy piezoresponse force microscopy of ferroelectric materials. *Applied Physics Letters*, **2006**, 88, 062908	3.4	332
781	Local potential and polarization screening on ferroelectric surfaces. *Physical Review B*, **2001**, 63,	3.3	321
780	Domain wall conductivity in La-doped BiFeO3. *Physical Review Letters*, **2010**, 105, 197603	7.4	319
779	Long range interactions in nanoscale science. *Reviews of Modern Physics*, **2010**, 82, 1887-1944	40.5	304
778	Deterministic control of ferroelastic switching in multiferroic materials. *Nature Nanotechnology*, **2009**, 4, 868-75	28.7	299
777	Suppression of octahedral tilts and associated changes in electronic properties at epitaxial oxide heterostructure interfaces. *Physical Review Letters*, **2010**, 105, 087204	7.4	288
776	Enhanced electric conductivity at ferroelectric vortex cores in BiFeO3. *Nature Physics*, **2012**, 8, 81-88	16.2	271
775	Electromechanical Imaging and Spectroscopy of Ferroelectric and Piezoelectric Materials: State of the Art and Prospects for the Future. *Journal of the American Ceramic Society*, **2009**, 92, 1629-1647	3.8	268
774	Piezoresponse force microscopy and recent advances in nanoscale studies of ferroelectrics. *Journal of Materials Science*, **2006**, 41, 107-116	4.3	251

773	Probing oxygen vacancy concentration and homogeneity in solid-oxide fuel-cell cathode materials on the subunit-cell level. *Nature Materials*, **2012**, 11, 888-94	27	243
772	Impact of different dopants on the switching properties of ferroelectric hafniumoxide. *Japanese Journal of Applied Physics*, **2014**, 53, 08LE02	1.4	240
771	Direct imaging of the spatial and energy distribution of nucleation centres in ferroelectric materials. *Nature Materials*, **2008**, 7, 209-15	27	235
770	Measuring oxygen reduction/evolution reactions on the nanoscale. *Nature Chemistry*, **2011**, 3, 707-13	17.6	220
769	Big-deep-smart data in imaging for guiding materials design. *Nature Materials*, **2015**, 14, 973-80	27	219
768	Real space mapping of Li-ion transport in amorphous Si anodes with nanometer resolution. *Nano Letters*, **2010**, 10, 3420-5	11.5	215
767	Nanoelectromechanics of piezoresponse force microscopy. *Physical Review B*, **2004**, 70,	3.3	206
766	Ferroelectricity in strain-free SrTiO3 thin films. *Physical Review Letters*, **2010**, 104, 197601	7.4	205
765	Dynamic conductivity of ferroelectric domain walls in BiFeO□*Nano Letters*, **2011**, 11, 1906-12	11.5	204
764	Vector piezoresponse force microscopy. *Microscopy and Microanalysis*, **2006**, 12, 206-20	0.5	204
763	Atomic Polarization and Local Reactivity on Ferroelectric Surfaces: A New Route toward Complex Nanostructures. *Nano Letters*, **2002**, 2, 589-593	11.5	204
762	Materials science. Functional ion defects in transition metal oxides. *Science*, **2013**, 341, 858-9	33.3	199
761	Nanoscale Insight Into Lead-Free BNT-BT-xKNN. *Advanced Functional Materials*, **2012**, 22, 4208-4215	15.6	198
760	Ferroelectric or non-ferroelectric: Why so many materials exhibit □ferroelectricity□on the nanoscale. *Applied Physics Reviews*, **2017**, 4, 021302	17.3	195
759	Direct observation of ferroelectric field effect and vacancy-controlled screening at the BiFeO3/LaxSr1-xMnO3 interface. *Nature Materials*, **2014**, 13, 1019-25	27	195
758	Differentiating Ferroelectric and Nonferroelectric Electromechanical Effects with Scanning Probe Microscopy. *ACS Nano*, **2015**, 9, 6484-92	16.7	191
757	Ferroelectric hafnium oxide: A CMOS-compatible and highly scalable approach to future ferroelectric memories **2013**,		185
756	CuInP□□Room Temperature Layered Ferroelectric. *Nano Letters*, **2015**, 15, 3808-14	11.5	184

755	Switching of ferroelectric polarization in epitaxial $BaTiO_3$ films on silicon without a conducting bottom electrode. *Nature Nanotechnology*, **2013**, 8, 748-54	28.7	184
754	Control of octahedral tilts and magnetic properties of perovskite oxide heterostructures by substrate symmetry. *Physical Review Letters*, **2010**, 105, 227203	7.4	184
753	Deep Learning of Atomically Resolved Scanning Transmission Electron Microscopy Images: Chemical Identification and Tracking Local Transformations. *ACS Nano*, **2017**, 11, 12742-12752	16.7	183
752	Domain growth kinetics in lithium niobate single crystals studied by piezoresponse force microscopy. *Applied Physics Letters*, **2005**, 86, 012906	3.4	183
751	Nanoscale Electromechanics of Ferroelectric and Biological Systems: A New Dimension in Scanning Probe Microscopy. *Annual Review of Materials Research*, **2007**, 37, 189-238	12.8	179
750	Quantitative mapping of switching behavior in piezoresponse force microscopy. *Review of Scientific Instruments*, **2006**, 77, 073702	1.7	178
749	Piezoresponse Force Microscopy: A Window into Electromechanical Behavior at the Nanoscale. *MRS Bulletin*, **2009**, 34, 648-657	3.2	172
748	Large resistive switching in ferroelectric $BiFeO_3$ nano-island based switchable diodes. *Advanced Materials*, **2013**, 25, 2339-43	24	163
747	Switchable induced polarization in LaAlO3/SrTiO3 heterostructures. *Nano Letters*, **2012**, 12, 1765-71	11.5	159
746	Very large capacitance enhancement in a two-dimensional electron system. *Science*, **2011**, 332, 825-8	33.3	150
745	A decade of piezoresponse force microscopy: progress, challenges, and opportunities. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2006**, 53, 2226-52	3.2	147
744	Band excitation in scanning probe microscopy: sines of change. *Journal Physics D: Applied Physics*, **2011**, 44, 464006	3	141
743	Nanoscale switching characteristics of nearly tetragonal BiFeO3 thin films. *Nano Letters*, **2010**, 10, 2555-61	11.5	140
742	Controlling the actuation properties of MXene paper electrodes upon cation intercalation. *Nano Energy*, **2015**, 17, 27-35	17.1	135
741	Atomic-scale evolution of modulated phases at the ferroelectric-antiferroelectric morphotropic phase boundary controlled by flexoelectric interaction. *Nature Communications*, **2012**, 3, 775	17.4	135
740	Mapping octahedral tilts and polarization across a domain wall in BiFeO3 from Z-contrast scanning transmission electron microscopy image atomic column shape analysis. *ACS Nano*, **2010**, 4, 6071-9	16.7	135
739	Electronic flexoelectricity in low-dimensional systems. *Physical Review B*, **2008**, 77,	3.3	135
738	Tunable metallic conductance in ferroelectric nanodomains. *Nano Letters*, **2012**, 12, 209-13	11.5	131

737	Local probing of ionic diffusion by electrochemical strain microscopy: Spatial resolution and signal formation mechanisms. *Journal of Applied Physics*, **2010**, 108, 053712	2.5	131
736	Screening Phenomena on Oxide Surfaces and Its Implications for Local Electrostatic and Transport Measurements. *Nano Letters*, **2004**, 4, 555-560	11.5	131
735	Ferroelectricity in Si-doped HfO2 revealed: a binary lead-free ferroelectric. *Advanced Materials*, **2014**, 26, 8198-202	24	126
734	Symmetry relationship and strain-induced transitions between insulating M1 and M2 and metallic R phases of vanadium dioxide. *Nano Letters*, **2010**, 10, 4409-16	11.5	125
733	Local impedance imaging and spectroscopy of polycrystalline ZnO using contact atomic force microscopy. *Applied Physics Letters*, **2003**, 82, 1869-1871	3.4	125
732	Doping-based stabilization of the M2 phase in free-standing VO2 nanostructures at room temperature. *Nano Letters*, **2012**, 12, 6198-205	11.5	120
731	Domain polarity and temperature induced potential inversion on the BaTiO3(100) surface. *Journal of Applied Physics*, **2002**, 91, 3816-3823	2.5	120
730	Bias-dependent molecular-level structure of electrical double layer in ionic liquid on graphite. *Nano Letters*, **2013**, 13, 5954-60	11.5	117
729	Strongly enhanced oxygen ion transport through samarium-doped CeO2 nanopillars in nanocomposite films. *Nature Communications*, **2015**, 6, 8588	17.4	116
728	Intermittency, quasiperiodicity and chaos in probe-induced ferroelectric domain switching. *Nature Physics*, **2014**, 10, 59-66	16.2	116
727	Chemical nature of ferroelastic twin domains in CHNHPbI perovskite. *Nature Materials*, **2018**, 17, 1013-1019	27	114
726	Role of single defects in electronic transport through carbon nanotube field-effect transistors. *Physical Review Letters*, **2002**, 89, 216801	7.4	112
725	Exploring local electrostatic effects with scanning probe microscopy: implications for piezoresponse force microscopy and triboelectricity. *ACS Nano*, **2014**, 8, 10229-36	16.7	110
724	Ferroelectric Lithography of Multicomponent Nanostructures. *Advanced Materials*, **2004**, 16, 795-799	24	109
723	A microelectromechanical load sensor for in situ electron and x-ray microscopy tensile testing of nanostructures. *Applied Physics Letters*, **2005**, 86, 013506	3.4	109
722	Tunneling electroresistance induced by interfacial phase transitions in ultrathin oxide heterostructures. *Nano Letters*, **2013**, 13, 5837-43	11.5	106
721	Modeling and measurement of surface displacements in BaTiO3 bulk material in piezoresponse force microscopy. *Journal of Applied Physics*, **2004**, 96, 563-568	2.5	106
720	Thermotropic phase boundaries in classic ferroelectrics. *Nature Communications*, **2014**, 5, 3172	17.4	105

719	Resonance enhancement in piezoresponse force microscopy: Mapping electromechanical activity, contact stiffness, and Q factor. *Applied Physics Letters*, **2006**, 89, 022906	3.4	105
718	Domain wall geometry controls conduction in ferroelectrics. *Nano Letters*, **2012**, 12, 5524-31	11.5	103
717	Surface Domain Structures and Mesoscopic Phase Transition in Relaxor Ferroelectrics. *Advanced Functional Materials*, **2011**, 21, 1977-1987	15.6	102
716	Collective dynamics underpins Rayleigh behavior in disordered polycrystalline ferroelectrics. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 7219-24	11.5	102
715	Exploring topological defects in epitaxial BiFeO3 thin films. *ACS Nano*, **2011**, 5, 879-87	16.7	102
714	Thermodynamics of electromechanically coupled mixed ionic-electronic conductors: Deformation potential, Vegard strains, and flexoelectric effect. *Physical Review B*, **2011**, 83,	3.3	102
713	Dynamic behaviour in piezoresponse force microscopy. *Nanotechnology*, **2006**, 17, 1615-28	3.4	102
712	The role of electrochemical phenomena in scanning probe microscopy of ferroelectric thin films. *ACS Nano*, **2011**, 5, 5683-91	16.7	101
711	Domain Wall Conduction and Polarization-Mediated Transport in Ferroelectrics. *Advanced Functional Materials*, **2013**, 23, 2592-2616	15.6	96
710	Nanoscale Ferroelectricity in Crystalline Glycine. *Advanced Functional Materials*, **2012**, 22, 2996-3003	15.6	94
709	Interplay of octahedral tilts and polar order in BiFeO3 films. *Advanced Materials*, **2013**, 25, 2497-504	24	94
708	Principal component and spatial correlation analysis of spectroscopic-imaging data in scanning probe microscopy. *Nanotechnology*, **2009**, 20, 085714	3.4	94
707	Temperature dependence of polarization and charge dynamics on the BaTiO3(100) surface by scanning probe microscopy. *Applied Physics Letters*, **2001**, 78, 1116-1118	3.4	94
706	Surface-screening mechanisms in ferroelectric thin films and their effect on polarization dynamics and domain structures. *Reports on Progress in Physics*, **2018**, 81, 036502	14.4	93
705	Nanoscale Elastic Changes in 2D Ti3C2Tx (MXene) Pseudocapacitive Electrodes. *Advanced Energy Materials*, **2016**, 6, 1502290	21.8	92
704	Substrate clamping effects on irreversible domain wall dynamics in lead zirconate titanate thin films. *Physical Review Letters*, **2012**, 108, 157604	7.4	92
703	Interplay between ferroelastic and metal-insulator phase transitions in strained quasi-two-dimensional VO2 nanoplatelets. *Nano Letters*, **2010**, 10, 2003-11	11.5	91
702	Decoupling electrochemical reaction and diffusion processes in ionically-conductive solids on the nanometer scale. *ACS Nano*, **2010**, 4, 7349-57	16.7	90

701	Resolution-function theory in piezoresponse force microscopy: Wall imaging, spectroscopy, and lateral resolution. *Physical Review B*, **2007**, 75,	3.3	89
700	Electromechanical imaging of biological systems with sub-10nm resolution. *Applied Physics Letters*, **2005**, 87, 053901	3.4	89
699	Band excitation in scanning probe microscopy: recognition and functional imaging. *Annual Review of Physical Chemistry*, **2014**, 65, 519-36	15.7	88
698	Placing single atoms in graphene with a scanning transmission electron microscope. *Applied Physics Letters*, **2017**, 111, 113104	3.4	87
697	Highly mobile ferroelastic domain walls in compositionally graded ferroelectric thin films. *Nature Materials*, **2016**, 15, 549-56	27	85
696	Domain wall conduction in multiaxial ferroelectrics. *Physical Review B*, **2012**, 85,	3.3	85
695	Effect of phase transition on the surface potential of the BaTiO3 (100) surface by variable temperature scanning surface potential microscopy. *Journal of Applied Physics*, **2000**, 87, 3950-3957	2.5	85
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693	Quantification of surface displacements and electromechanical phenomena via dynamic atomic force microscopy. *Nanotechnology*, **2016**, 27, 425707	3.4	80
692	Big, Deep, and Smart Data in Scanning Probe Microscopy. *ACS Nano*, **2016**, 10, 9068-9086	16.7	79
691	Nanoscale polarization manipulation and imaging of ferroelectric Langmuir-Blodgett polymer films. *Applied Physics Letters*, **2007**, 90, 122904	3.4	78
690	Potential and Impedance Imaging of Polycrystalline BiFeO3 Ceramics. *Journal of the American Ceramic Society*, **2004**, 85, 3011-3017	3.8	78
689	Electrochemical strain microscopy: Probing ionic and electrochemical phenomena in solids at the nanometer level. *MRS Bulletin*, **2012**, 37, 651-658	3.2	77
688	Direct Observation of Capacitor Switching Using Planar Electrodes. *Advanced Functional Materials*, **2010**, 20, 3466-3475	15.6	76
687	Probing the role of single defects on the thermodynamics of electric-field induced phase transitions. *Physical Review Letters*, **2008**, 100, 155703	7.4	76
686	Directing Matter: Toward Atomic-Scale 3D Nanofabrication. *ACS Nano*, **2016**, 10, 5600-18	16.7	76
685	Deep learning analysis of defect and phase evolution during electron beam-induced transformations in WS2. *Npj Computational Materials*, **2019**, 5,	10.9	74
684	Single-domain multiferroic BiFeO3 films. *Nature Communications*, **2016**, 7, 12712	17.4	74

683	High resolution electromechanical imaging of ferroelectric materials in a liquid environment by piezoresponse force microscopy. *Physical Review Letters*, **2006**, 96, 237602	7.4	74
682	Nanoelectromechanics of piezoelectric indentation and applications to scanning probe microscopies of ferroelectric materials. *Philosophical Magazine*, **2005**, 85, 1017-1051	1.6	74
681	Probing charge screening dynamics and electrochemical processes at the solid-liquid interface with electrochemical force microscopy. *Nature Communications*, **2014**, 5, 3871	17.4	73
680	Mixed electrochemical–ferroelectric states in nanoscale ferroelectrics. *Nature Physics*, **2017**, 13, 812-818	16.2	72
679	Ionically-mediated electromechanical hysteresis in transition metal oxides. *ACS Nano*, **2012**, 6, 7026-33	16.7	72
678	Atomically resolved mapping of polarization and electric fields across ferroelectric/oxide interfaces by Z-contrast imaging. *Advanced Materials*, **2011**, 23, 2474-9	24	72
677	Local Phenomena in Oxides by Advanced Scanning Probe Microscopy. *Journal of the American Ceramic Society*, **2005**, 88, 1077-1098	3.8	72
676	Giant energy density in [001]-textured Pb(Mg1/3Nb2/3)O3-PbZrO3-PbTiO3 piezoelectric ceramics. *Applied Physics Letters*, **2013**, 102, 042903	3.4	71
675	Direct evidence of mesoscopic dynamic heterogeneities at the surfaces of ergodic ferroelectric relaxors. *Physical Review B*, **2010**, 81,	3.3	71
674	Rapid multidimensional data acquisition in scanning probe microscopy applied to local polarization dynamics and voltage dependent contact mechanics. *Applied Physics Letters*, **2008**, 93, 112903	3.4	71
673	Electromechanical detection in scanning probe microscopy: Tip models and materials contrast. *Journal of Applied Physics*, **2007**, 102, 014109	2.5	71
672	In Situ Observation of Oxygen Vacancy Dynamics and Ordering in the Epitaxial LaCoO System. *ACS Nano*, **2017**, 11, 6942-6949	16.7	70
671	Controlled manipulation of oxygen vacancies using nanoscale flexoelectricity. *Nature Communications*, **2017**, 8, 615	17.4	70
670	Imaging physical phenomena with local probes: From electrons to photons. *Reviews of Modern Physics*, **2012**, 84, 1343-1381	40.5	70
669	Nanoscale control of phase variants in strain-engineered BiFeO. *Nano Letters*, **2011**, 11, 3346-54	11.5	70
668	Piezoresponse force spectroscopy of ferroelectric-semiconductor materials. *Journal of Applied Physics*, **2007**, 102, 114108	2.5	69
667	Li-ion dynamics and reactivity on the nanoscale. *Materials Today*, **2011**, 14, 548-558	21.8	68
666	Reduced coercive field in BiFeO thin films through domain engineering. *Advanced Materials*, **2011**, 23, 669-72	24	68

665	A review of molecular beam epitaxy of ferroelectric BaTiO films on Si, Ge and GaAs substrates and their applications. *Science and Technology of Advanced Materials*, **2015**, 16, 036005	7.1	67
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659	Nonlinear phenomena in multiferroic nanocapacitors: joule heating and electromechanical effects. *ACS Nano*, **2011**, 5, 9104-12	16.7	65
658	Mapping irreversible electrochemical processes on the nanoscale: ionic phenomena in li ion conductive glass ceramics. *Nano Letters*, **2011**, 11, 4161-7	11.5	65
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655	Materials informatics: From the atomic-level to the continuum. *Acta Materialia*, **2019**, 168, 473-510	8.4	64
654	Carrier density modulation in a germanium heterostructure by ferroelectric switching. *Nature Communications*, **2015**, 6, 6067	17.4	64
653	Nanoscale electromechanics of paraelectric materials with mobile charges: Size effects and nonlinearity of electromechanical response of SrTiO3 films. *Physical Review B*, **2011**, 84,	3.3	64
652	Review of Ferroelectric Domain Imaging by Piezoresponse Force Microscopy **2007**, 173-214		64
651	Deep data analysis of conductive phenomena on complex oxide interfaces: physics from data mining. *ACS Nano*, **2014**, 8, 6449-57	16.7	63
650	Big data and deep data in scanning and electron microscopies: deriving functionality from multidimensional data sets. *Advanced Structural and Chemical Imaging*, **2015**, 1, 6	3.9	63
649	Conductivity of twin-domain-wall/surface junctions in ferroelastics: Interplay of deformation potential, octahedral rotations, improper ferroelectricity, and flexoelectric coupling. *Physical Review B*, **2012**, 86,	3.3	63
648	Electromechanical probing of ionic currents in energy storage materials. *Applied Physics Letters*, **2010**, 96, 222906	3.4	63

647	Mesoscopic metal-insulator transition at ferroelastic domain walls in VO2. *ACS Nano*, **2010**, 4, 4412-9	16.7	63
646	Real space imaging of the microscopic origins of the ultrahigh dielectric constant in polycrystalline CaCu3Ti4O12. *Applied Physics Letters*, **2005**, 86, 102902	3.4	63
645	Microwave a.c. conductivity of domain walls in ferroelectric thin films. *Nature Communications*, **2016**, 7, 11630	17.4	63
644	Probing surface and bulk electrochemical processes on the LaAlO3-SrTiO3 interface. *ACS Nano*, **2012**, 6, 3841-52	16.7	62
643	Bioelectromechanical imaging by scanning probe microscopy: Galvani's experiment at the nanoscale. *Ultramicroscopy*, **2006**, 106, 334-40	3.1	62
642	Growth of Carbon Nanofibers on Tipless Cantilevers for High Resolution Topography and Magnetic Force Imaging. *Nano Letters*, **2004**, 4, 2157-2161	11.5	62
641	Tunable quadruple-well ferroelectric van der Waals crystals. *Nature Materials*, **2020**, 19, 43-48	27	61
640	Electronic properties of isosymmetric phase boundaries in highly strained Ca-Doped BiFeO *Advanced Materials*, **2014**, 26, 4376-80	24	60
639	Learning surface molecular structures via machine vision. *Npj Computational Materials*, **2017**, 3,	10.9	60
638	Quantification of flexoelectricity in PbTiO/SrTiO superlattice polar vortices using machine learning and phase-field modeling. *Nature Communications*, **2017**, 8, 1468	17.4	60
637	Ultrathin limit and dead-layer effects in local polarization switching of BiFeO3. *Physical Review B*, **2012**, 85,	3.3	60
636	Pyroelectric response of ferroelectric nanowires: Size effect and electric energy harvesting. *Journal of Applied Physics*, **2010**, 108, 042009	2.5	60
635	Direct mapping of ionic transport in a Si anode on the nanoscale: time domain electrochemical strain spectroscopy study. *ACS Nano*, **2011**, 5, 9682-95	16.7	59
634	Humidity effects on tip-induced polarization switching in lithium niobate. *Applied Physics Letters*, **2014**, 104, 092908	3.4	58
633	Correlated polarization switching in the proximity of a 180 domain wall. *Physical Review B*, **2010**, 82,	3.3	58
632	Unraveling Deterministic Mesoscopic Polarization Switching Mechanisms: Spatially Resolved Studies of a Tilt Grain Boundary in Bismuth Ferrite. *Advanced Functional Materials*, **2009**, 19, 2053-2063	15.6	58
631	Electronic transport imaging in a multiwire SnO2 chemical field-effect transistor device. *Journal of Applied Physics*, **2005**, 98, 044503	2.5	58
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629	In situ tracking of the nanoscale expansion of porous carbon electrodes. *Energy and Environmental Science*, **2013**, 6, 225-231	35.4	57
628	Resolution theory, and static and frequency-dependent cross-talk in piezoresponse force microscopy. *Nanotechnology*, **2010**, 21, 405703	3.4	57
627	Ferroelectric domain wall pinning at a bicrystal grain boundary in bismuth ferrite. *Applied Physics Letters*, **2008**, 93, 142901	3.4	57
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617	Three-State Ferroelastic Switching and Large Electromechanical Responses in PbTiO Thin Films. *Advanced Materials*, **2017**, 29, 1702069	24	53
616	Atomic-Level Sculpting of Crystalline Oxides: Toward Bulk Nanofabrication with Single Atomic Plane Precision. *Small*, **2015**, 11, 5895-900	11	53
615	Anisotropic conductivity of uncharged domain walls in BiFeO3. *Physical Review B*, **2012**, 86,	3.3	53
614	Epitaxial Bi5Ti3FeO15-CoFe2O4 pillar-matrix multiferroic nanostructures. *ACS Nano*, **2013**, 7, 11079-86	16.7	52
613	Defect-mediated polarization switching in ferroelectrics and related materials: from mesoscopic mechanisms to atomistic control. *Advanced Materials*, **2010**, 22, 314-22	24	52
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608	Enhancing Ion Migration in Grain Boundaries of Hybrid Organic□norganic Perovskites by Chlorine. *Advanced Functional Materials*, **2017**, 27, 1700749	15.6	51
607	Identification of phases, symmetries and defects through local crystallography. *Nature Communications*, **2015**, 6, 7801	17.4	51
606	Challenges in Ceramic Science: A Report from the Workshop on Emerging Research Areas in Ceramic Science. *Journal of the American Ceramic Society*, **2012**, 95, 3699-3712	3.8	51
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