

Regina Dittmann

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papers

9,060
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41
h-index

92
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184
ext. papers

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ext. citations

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6.14
L-index

#	Paper	IF	Citations
175	Redox-Based Resistive Switching Memories [Nanoionic Mechanisms, Prospects, and Challenges]. <i>Advanced Materials</i> , 2009 , 21, 2632-2663	24	3799
174	Coexistence of filamentary and homogeneous resistive switching in Fe-doped SrTiO ₃ thin-film memristive devices. <i>Advanced Materials</i> , 2010 , 22, 4819-22	24	291
173	Origin of the Ultra-nonlinear Switching Kinetics in Oxide-Based Resistive Switches. <i>Advanced Functional Materials</i> , 2011 , 21, 4487-4492	15.6	267
172	In situ observation of filamentary conducting channels in an asymmetric Ta _{0.5-x} /TaO _{2-x} bilayer structure. <i>Nature Communications</i> , 2013 , 4, 2382	17.4	249
171	Impact of defect distribution on resistive switching characteristics of Sr ₂ TiO ₄ thin films. <i>Advanced Materials</i> , 2010 , 22, 411-4	24	197
170	Towards Oxide Electronics: a Roadmap. <i>Applied Surface Science</i> , 2019 , 482, 1-93	6.7	160
169	Identification of A- and B-site cation vacancy defects in perovskite oxide thin films. <i>Physical Review Letters</i> , 2010 , 105, 226102	7.4	137
168	Nanoscale resistive switching in SrTiO ₃ thin films. <i>Physica Status Solidi - Rapid Research Letters</i> , 2007 , 1, R86-R88	2.5	131
167	Anomalous Resistance Hysteresis in Oxide ReRAM: Oxygen Evolution and Reincorporation Revealed by In Situ TEM. <i>Advanced Materials</i> , 2017 , 29, 1700212	24	129
166	Improved endurance behavior of resistive switching in (Ba,Sr)TiO ₃ thin films with W top electrode. <i>Applied Physics Letters</i> , 2008 , 93, 222102	3.4	103
165	Resistive switching and data reliability of epitaxial (Ba,Sr)TiO ₃ thin films. <i>Applied Physics Letters</i> , 2006 , 88, 042901	3.4	103
164	Do dislocations act as atomic autobahns for oxygen in the perovskite oxide SrTiO ₃ ?. <i>Nanoscale</i> , 2014 , 6, 12864-76	7.7	101
163	Pulsed laser ablation of complex oxides: The role of congruent ablation and preferential scattering for the film stoichiometry. <i>Applied Physics Letters</i> , 2012 , 101, 131601	3.4	88
162	Spectromicroscopic insights for rational design of redox-based memristive devices. <i>Nature Communications</i> , 2015 , 6, 8610	17.4	82
161	Resistive Switching Mechanisms on TaO _x and SrRuO ₃ Thin-Film Surfaces Probed by Scanning Tunneling Microscopy. <i>ACS Nano</i> , 2016 , 10, 1481-92	16.7	79
160	Spectroscopic proof of the correlation between redox-state and charge-carrier transport at the interface of resistively switching Ti/PCMO devices. <i>Advanced Materials</i> , 2014 , 26, 2730-5	24	73
159	Quantifying redox-induced Schottky barrier variations in memristive devices via in operando spectromicroscopy with graphene electrodes. <i>Nature Communications</i> , 2016 , 7, 12398	17.4	68

158	Impact of the electroforming process on the device stability of epitaxial Fe-doped SrTiO ₃ resistive switching cells. <i>Journal of Applied Physics</i> , 2009 , 106, 114507	2.5	62
157	Morphological and electrical changes in TiO ₂ memristive devices induced by electroforming and switching. <i>Physica Status Solidi - Rapid Research Letters</i> , 2010 , 4, 16-18	2.5	59
156	Scaling Potential of Local Redox Processes in Memristive SrTiO ₃ Thin-Film Devices. <i>Proceedings of the IEEE</i> , 2012 , 100, 1979-1990	14.3	57
155	Verification of redox-processes as switching and retention failure mechanisms in Nb:SrTiO ₃ /metal devices. <i>Nanoscale</i> , 2016 , 8, 13967-75	7.7	57
154	Subfilamentary Networks Cause Cycle-to-Cycle Variability in Memristive Devices. <i>ACS Nano</i> , 2017 , 11, 6921-6929	16.7	55
153	Reversible alternation between bipolar and unipolar resistive switching in polycrystalline barium strontium titanate thin films. <i>Journal of Applied Physics</i> , 2010 , 107, 094506	2.5	55
152	Fluctuation specific heat and thermal expansion of YBaCuO and DyBaCuO. <i>Physica C: Superconductivity and Its Applications</i> , 1990 , 168, 465-474	1.3	55
151	Realization of regular arrays of nanoscale resistive switching blocks in thin films of Nb-doped SrTiO ₃ . <i>Applied Physics Letters</i> , 2008 , 93, 023110	3.4	53
150	Nanosized Conducting Filaments Formed by Atomic-Scale Defects in Redox-Based Resistive Switching Memories. <i>Chemistry of Materials</i> , 2017 , 29, 3164-3173	9.6	48
149	Formation and Movement of Cationic Defects During Forming and Resistive Switching in SrTiO ₃ Thin Film Devices. <i>Advanced Functional Materials</i> , 2015 , 25, 6360-6368	15.6	47
148	Nonstoichiometry accommodation in SrTiO ₃ thin films studied by positron annihilation and electron microscopy. <i>Physical Review B</i> , 2013 , 87,	3.3	47
147	Growth dynamics and strain relaxation mechanisms in BaTiO ₃ pulsed laser deposited on SrRuO ₃ /SrTiO ₃ . <i>Physical Review B</i> , 2006 , 73,	3.3	47
146	Detection of filament formation in forming-free resistive switching SrTiO ₃ devices with Ti top electrodes. <i>Applied Physics Letters</i> , 2012 , 100, 223503	3.4	46
145	Tuning electrochemically driven surface transformation in atomically flat LaNiO thin films for enhanced water electrolysis. <i>Nature Materials</i> , 2021 , 20, 674-682	27	46
144	Influence of charge compensation mechanisms on the sheet electron density at conducting LaAlO ₃ /SrTiO ₃ -interfaces. <i>Applied Physics Letters</i> , 2012 , 100, 052103	3.4	45
143	Impact of the interplay between nonstoichiometry and kinetic energy of the plume species on the growth mode of SrTiO ₃ thin films. <i>Journal Physics D: Applied Physics</i> , 2014 , 47, 034009	3	44
142	Insights into Nanoscale Electrochemical Reduction in a Memristive Oxide: the Role of Three-Phase Boundaries. <i>Advanced Functional Materials</i> , 2014 , 24, 4466-4472	15.6	43
141	Spectroscopic study of the electric field induced valence change of Fe-defect centers in SrTiO ₃ . <i>Physical Chemistry Chemical Physics</i> , 2011 , 13, 20779-86	3.6	43

140	Early self-assembled stages in epitaxial SrRuO ₃ on LaAlO ₃ . <i>Applied Physics Letters</i> , 2003 , 82, 2497-2499	3.4	43
139	Space charges and defect concentration profiles at complex oxide interfaces. <i>Physical Review B</i> , 2016 , 93,	3.3	42
138	Finite-size versus interface-proximity effects in thin-film epitaxial SrTiO ₃ . <i>Physical Review B</i> , 2014 , 89,	3.3	42
137	Function by defects at the atomic scale [New concepts for non-volatile memories. <i>Solid-State Electronics</i> , 2010 , 54, 830-840	1.7	42
136	Oxygen Exchange Processes between Oxide Memristive Devices and Water Molecules. <i>Advanced Materials</i> , 2018 , 30, e1800957	24	41
135	High temperature conductance characteristics of LaAlO ₃ /SrTiO ₃ -heterostructures under equilibrium oxygen atmospheres. <i>Applied Physics Letters</i> , 2010 , 97, 012103	3.4	41
134	Correlation between growth kinetics and nanoscale resistive switching properties of SrTiO ₃ thin films. <i>Journal of Applied Physics</i> , 2010 , 108, 124504	2.5	38
133	Impact of the top-electrode material on the permittivity of single-crystalline Ba _{0.7} Sr _{0.3} TiO ₃ thin films. <i>Applied Physics Letters</i> , 2005 , 86, 202908	3.4	38
132	Analysis of shape effects on the piezoresponse in ferroelectric nanograins with and without adsorbates. <i>Applied Physics Letters</i> , 2005 , 87, 082901	3.4	37
131	Chemical insight into electroforming of resistive switching manganite heterostructures. <i>Nanoscale</i> , 2013 , 5, 3954-60	7.7	36
130	Transport limits in defect-engineered LaAlO ₃ /SrTiO ₃ bilayers. <i>Nanoscale</i> , 2015 , 7, 1013-22	7.7	35
129	Sharp ferroelectric phase transition in strained single-crystalline SrRuO ₃ /Ba _{0.7} Sr _{0.3} TiO ₃ /SrRuO ₃ capacitors. <i>Applied Physics Letters</i> , 2003 , 83, 5011-5013	3.4	35
128	Rapid single-flux-quantum balanced comparator based on high-T _c bicrystal Josephson junctions. <i>Applied Physics Letters</i> , 1996 , 68, 2732-2734	3.4	34
127	Sr ₂ TiO ₄ layered perovskite thin films grown by pulsed laser deposition. <i>Applied Physics Letters</i> , 2008 , 92, 241918	3.4	33
126	Defect Control of Conventional and Anomalous Electron Transport at Complex Oxide Interfaces. <i>Physical Review X</i> , 2016 , 6,	9.1	32
125	Topotactic Phase Transition Driving Memristive Behavior. <i>Advanced Materials</i> , 2019 , 31, e1903391	24	32
124	Ordering and Phase Control in Epitaxial Double-Perovskite Catalysts for the Oxygen Evolution Reaction. <i>ACS Catalysis</i> , 2017 , 7, 7029-7037	13.1	30
123	Detection of Fe ²⁺ valence states in Fe doped SrTiO ₃ epitaxial thin films grown by pulsed laser deposition. <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 8311-7	3.6	29

122	Redox-based memristive devices for new computing paradigm. <i>APL Materials</i> , 2019 , 7, 110903	5.7	28
121	Thermodynamic Ground States of Complex Oxide Heterointerfaces. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 1086-1092	9.5	27
120	Reduction of the forming voltage through tailored oxygen non-stoichiometry in tantalum oxide ReRAM devices. <i>Scientific Reports</i> , 2018 , 8, 10861	4.9	27
119	UV radiation enhanced oxygen vacancy formation caused by the PLD plasma plume. <i>Scientific Reports</i> , 2018 , 8, 8846	4.9	27
118	Stoichiometry dependence and thermal stability of conducting NdGaO ₃ /SrTiO ₃ heterointerfaces. <i>Applied Physics Letters</i> , 2013 , 102, 071601	3.4	27
117	Disentanglement of growth dynamic and thermodynamic effects in LaAlO ₃ /SrTiO ₃ heterostructures. <i>Scientific Reports</i> , 2016 , 6, 22410	4.9	27
116	Surface Termination Conversion during SrTiO ₃ Thin Film Growth Revealed by X-ray Photoelectron Spectroscopy. <i>Scientific Reports</i> , 2015 , 5, 11829	4.9	26
115	Unraveling the enhanced Oxygen Vacancy Formation in Complex Oxides during Annealing and Growth. <i>Scientific Reports</i> , 2017 , 7, 39953	4.9	25
114	Impact of the cation-stoichiometry on the resistive switching and data retention of SrTiO ₃ thin films. <i>AIP Advances</i> , 2015 , 5, 047150	1.5	25
113	Evidence for multifilamentary valence changes in resistive switching SrTiO ₃ devices detected by transmission X-ray microscopy. <i>APL Materials</i> , 2013 , 1, 042102	5.7	25
112	Nanospectroscopy of Infrared Phonon Resonance Enables Local Quantification of Electronic Properties in Doped SrTiO ₃ Ceramics. <i>Advanced Functional Materials</i> , 2018 , 28, 1802834	15.6	25
111	Determination of the electrostatic potential distribution in Pt/Fe:SrTiO ₃ /Nb:SrTiO ₃ thin-film structures by electron holography. <i>Scientific Reports</i> , 2014 , 4, 6975	4.9	24
110	Different threshold and bipolar resistive switching mechanisms in reactively sputtered amorphous undoped and Cr-doped vanadium oxide thin films. <i>Journal of Applied Physics</i> , 2018 , 123, 044502	2.5	24
109	A Theoretical and Experimental View on the Temperature Dependence of the Electronic Conduction through a Schottky Barrier in a Resistively Switching SrTiO ₃ -Based Memory Cell. <i>Advanced Electronic Materials</i> , 2018 , 4, 1800062	6.4	24
108	Mott-transition-based RRAM. <i>Materials Today</i> , 2019 , 28, 63-80	21.8	24
107	2022 roadmap on neuromorphic computing and engineering. <i>Neuromorphic Computing and Engineering</i> ,		24
106	Avalanche-Discharge-Induced Electrical Forming in Tantalum Oxide-Based Metal/Insulator/Metal Structures. <i>Advanced Functional Materials</i> , 2015 , 25, 7154-7162	15.6	23
105	Identification of screw dislocations as fast-forming sites in Fe-doped SrTiO ₃ . <i>Applied Physics Letters</i> , 2013 , 102, 183504	3.4	23

104	Thickness dependence of intrinsic dielectric response and apparent interfacial capacitance in ferroelectric thin films. <i>Journal of Applied Physics</i> , 2007 , 101, 074102	2.5	23
103	Formation mechanism of Ruddlesden-Popper-type antiphase boundaries during the kinetically limited growth of Sr rich SrTiO thin films. <i>Scientific Reports</i> , 2016 , 6, 38296	4.9	23
102	The influence of the local oxygen vacancy concentration on the piezoresponse of strontium titanate thin films. <i>Nanoscale</i> , 2015 , 7, 14351-7	7.7	21
101	Complex behaviour of vacancy point-defects in SrRuO ₃ thin films. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 1060-9	3.6	21
100	Spectroscopic Indications of Tunnel Barrier Charging as the Switching Mechanism in Memristive Devices. <i>Advanced Functional Materials</i> , 2017 , 27, 1702282	15.6	20
99	Correlation between ramp morphology and properties of ramp-type junctions. <i>IEEE Transactions on Applied Superconductivity</i> , 1997 , 7, 2844-2847	1.8	20
98	Fabrication of arrays of SrZrO ₃ nanowires by pulsed laser deposition. <i>Nanotechnology</i> , 2004 , 15, S122-S135	3.5	20
97	Atomic-scale measurement of structure and chemistry of a single-unit-cell layer of LaAlO ₃ embedded in SrTiO ₃ . <i>Microscopy and Microanalysis</i> , 2013 , 19, 310-8	0.5	19
96	Influence of ramp shape and morphology on the properties of YBa ₂ Cu ₃ O _{7-δ} ramp-type junctions. <i>Physica C: Superconductivity and Its Applications</i> , 1998 , 302, 176-182	1.3	19
95	In-Gap States and Band-Like Transport in Memristive Devices. <i>Nano Letters</i> , 2019 , 19, 54-60	11.5	19
94	Fabrication of stacked intrinsic Josephson junctions from Bi ₂ Sr ₂ CaCu ₂ O _{8+x} thin films. <i>Superconductor Science and Technology</i> , 1996 , 9, A22-A25	3.1	18
93	Introduction to new memory paradigms: memristive phenomena and neuromorphic applications. <i>Faraday Discussions</i> , 2019 , 213, 11-27	3.6	17
92	Investigation of SrRuO ₃ barriers in SNS junctions. <i>Superconductor Science and Technology</i> , 1994 , 7, 277-280	3.1	17
91	Oxygen partial pressure dependence of surface space charge formation in donor-doped SrTiO ₃ . <i>APL Materials</i> , 2017 , 5, 056106	5.7	16
90	Atomic Structure of Antiphase Nanodomains in Fe-Doped SrTiO ₃ Films. <i>Advanced Functional Materials</i> , 2015 , 25, 6369-6373	15.6	16
89	SrZrO ₃ Nanopatterning Using Self-Organized SrRuO ₃ as a Template. <i>Advanced Materials</i> , 2005 , 17, 281-284	3.4	15
88	Fabrication of YBa ₂ /sub 2/Cu ₃ /sub 3/O ₇ / ramp-type junctions by interface treatments. <i>IEEE Transactions on Applied Superconductivity</i> , 1999 , 9, 3440-3443	1.8	15
87	Electrolysis of Water at Atomically Tailored Epitaxial Cobaltite Surfaces. <i>Chemistry of Materials</i> , 2019 , 31, 2337-2346	9.6	14

86	Electronic Inhomogeneity Influence on the Anomalous Hall Resistivity Loops of SrRuO Epitaxially Interfaced with 5d Perovskites. <i>ACS Omega</i> , 2020 , 5, 5824-5833	3.9	13
85	Local conductivity of epitaxial Fe-doped SrTiO ₃ thin films. <i>Phase Transitions</i> , 2011 , 84, 483-488	1.3	13
84	Subgap conductance features of YBa ₂ Cu ₃ O _{7-x} edge Josephson junctions. <i>Physical Review B</i> , 1999 , 59, 3815-3822	3.3	13
83	Measurement of the error rate of single flux quantum circuits with high temperature superconductors. <i>IEEE Transactions on Applied Superconductivity</i> , 1999 , 9, 3850-3853	1.8	13
82	Effects of process parameters on the fabrication of edge-type YBCO Josephson junctions by interface treatments. <i>Physica C: Superconductivity and Its Applications</i> , 1999 , 326-327, 157-169	1.3	13
81	Pulsed laser deposition of SrRuO ₃ thin-films: The role of the pulse repetition rate. <i>APL Materials</i> , 2016 , 4, 126109	5.7	13
80	Engineering Oxygen Migration for Homogeneous Volume Resistive Switching in 3-Terminal Devices. <i>Advanced Electronic Materials</i> , 2019 , 5, 1800629	6.4	12
79	The role of defects in resistively switching chalcogenides. <i>International Journal of Materials Research</i> , 2010 , 101, 182-198	0.5	12
78	Electronic structure of epitaxial Fe-doped SrTiO ₃ thin films. <i>Phase Transitions</i> , 2011 , 84, 489-500	1.3	12
77	Current transport in ramp-type junctions with engineered interface. <i>Journal of Applied Physics</i> , 2001 , 89, 3852-3860	2.5	12
76	Validity of magnetotransport detection of skyrmions in epitaxial SrRuO ₃ heterostructures. <i>Physical Review Materials</i> , 2020 , 4,	3.2	12
75	SrTiO ₃ termination control: a method to tailor the oxygen exchange kinetics. <i>Materials Research Letters</i> , 2020 , 8, 31-40	7.4	12
74	Mobility Modulation and Suppression of Defect Formation in Two-Dimensional Electron Systems by Charge-Transfer Management. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 10888-10896	9.5	11
73	Valence change detection in memristive oxide based heterostructure cells by hard X-ray photoelectron emission spectroscopy. <i>APL Materials</i> , 2018 , 6, 046106	5.7	11
72	Current transport across YBa ₂ Cu ₃ O _{7-x} /Au interfaces. <i>Applied Physics Letters</i> , 1996 , 69, 696-698	3.4	11
71	Chemical control of the electrical surface properties in donor-doped transition metal oxides. <i>Physical Review Materials</i> , 2019 , 3,	3.2	11
70	Competing strain relaxation mechanisms in epitaxially grown Pr _{0.48} Ca _{0.52} MnO ₃ on SrTiO ₃ . <i>APL Materials</i> , 2014 , 2, 106106	5.7	10
69	Resistive Switching of Sub-10 nm TiO ₂ Nanoparticle Self-Assembled Monolayers. <i>Nanomaterials</i> , 2017 , 7,	5.4	10

68	Measurement of the dynamic error rate of a high temperature superconductor rapid single flux quantum comparator. <i>Applied Physics Letters</i> , 1998 , 72, 2328-2330	3.4	10
67	Engineering antiphase boundaries in epitaxial SrTiO ₃ to achieve forming free memristive devices. <i>APL Materials</i> , 2019 , 7, 101127	5.7	10
66	Trade-Off Between Data Retention and Switching Speed in Resistive Switching ReRAM Devices. <i>Advanced Electronic Materials</i> , 2021 , 7, 2000815	6.4	10
65	Impact of Fe doping on the electronic structure of SrTiO thin films determined by resonant photoemission. <i>Journal of Chemical Physics</i> , 2018 , 148, 154702	3.9	9
64	Influence of La-doping of YBa/sub 2/Cu/sub 3/O/sub 7/ on transport properties of interface-engineered ramp-edge junctions. <i>IEEE Transactions on Applied Superconductivity</i> , 2001 , 11, 795-798	1.8	9
63	Magnetic coupling of ferromagnetic SrRuO ₃ epitaxial layers separated by ultrathin non-magnetic SrZrO ₃ /SrIrO ₃ . <i>Applied Physics Letters</i> , 2018 , 113, 192402	3.4	9
62	Band alignment at memristive metal-oxide interfaces investigated by hard x-ray photoemission spectroscopy. <i>Physical Review B</i> , 2014 , 90,	3.3	8
61	Studies of local structural distortions in strained ultrathin BaTiO ₃ films using scanning transmission electron microscopy. <i>Microscopy and Microanalysis</i> , 2014 , 20, 740-7	0.5	8
60	X-ray absorption and resonant photoemission studies of Mn doped SrTiO ₃ epitaxial films. <i>Radiation Physics and Chemistry</i> , 2013 , 93, 123-128	2.5	8
59	Bipolar resistive switching in oxides: Mechanisms and scaling. <i>Current Applied Physics</i> , 2011 , 11, e75-e78	2.6	8
58	Effect of the magnetic-field orientation on the modulation period of the critical current of ramp-type Josephson junctions. <i>Journal of Applied Physics</i> , 2001 , 90, 4623-4631	2.5	8
57	HTS basic RSFQ cells for an optimal bit-error rate. <i>Superconductor Science and Technology</i> , 2002 , 15, 483-487	4.8	8
56	Measurement of the static error rate of a storage cell for single magnetic flux quanta, fabricated from high-T _c multilayer bicrystal Josephson junctions. <i>Applied Physics Letters</i> , 1998 , 72, 1513-1515	3.4	8
55	First order sigma-delta modulator in HTS bicrystal technology. <i>Physica C: Superconductivity and Its Applications</i> , 1999 , 326-327, 170-176	1.3	8
54	Antiphase Boundaries Constitute Fast Cation Diffusion Paths in SrTiO ₃ Memristive Devices. <i>Advanced Functional Materials</i> , 2020 , 30, 2004118	15.6	8
53	Utilizing the Switching Stochasticity of HfO/TiO-Based ReRAM Devices and the Concept of Multiple Device Synapses for the Classification of Overlapping and Noisy Patterns. <i>Frontiers in Neuroscience</i> , 2021 , 15, 661856	5.1	8
52	Probing orbital ordering in LaVO ₃ epitaxial films by Raman scattering. <i>APL Materials</i> , 2016 , 4, 046103	5.7	8
51	Identifying Ionic and Electronic Charge Transfer at Oxide Heterointerfaces. <i>Advanced Materials</i> , 2021 , 33, e2004132	24	8

50	Tailoring the switching performance of resistive switching SrTiO ₃ devices by SrO interface engineering. <i>Solid State Ionics</i> , 2018 , 325, 247-250	3.3	8
49	Impact of cation stoichiometry on the early stage of growth of SrTiO ₃ deposited by pulsed laser deposition. <i>Applied Surface Science</i> , 2015 , 359, 68-72	6.7	7
48	Tuning cationic composition of La:EuTiO ₃ films. <i>APL Materials</i> , 2013 , 1, 052111	5.7	7
47	Fabrication of stress-induced SrRuO ₃ nanostructures by pulsed laser deposition. <i>Applied Physics A: Materials Science and Processing</i> , 2004 , 79, 1461-1464	2.6	7
46	Microstructure of epitaxial Ba _{0.7} Sr _{0.3} TiO ₃ /SrRuO ₃ bilayer films on SrTiO ₃ substrates. <i>Journal of Applied Physics</i> , 2005 , 97, 104907	2.5	7
45	Behavior of cation vacancies in single-crystal and in thin-film SrTiO ₃ : The importance of strontium vacancies and their defect associates. <i>Physical Review Materials</i> , 2020 , 4,	3.2	7
44	Comprehensive model for the electronic transport in Pt/SrTiO ₃ analog memristive devices. <i>Physical Review B</i> , 2020 , 102,	3.3	7
43	Origin of the hump anomalies in the Hall resistance loops of ultrathin SrRuO ₃ /SrIrO ₃ multilayers. <i>Physical Review Materials</i> , 2021 , 5,	3.2	7
42	Feasibility studies for filament detection in resistively switching SrTiO ₃ devices by employing grazing incidence small angle X-ray scattering. <i>Journal of Applied Physics</i> , 2013 , 113, 064509	2.5	6
41	Stoichiometry in epitaxial oxide thin films 2015 , 231-261		5
40	Interface effects on memristive devices 2019 , 171-202		5
39	Effect of Cationic Interface Defects on Band Alignment and Contact Resistance in Metal/Oxide Heterojunctions. <i>Advanced Electronic Materials</i> , 2020 , 6, 1900808	6.4	5
38	Trade-off between variability and retention of memristive epitaxial SrTiO ₃ devices. <i>APL Materials</i> , 2021 , 9, 021110	5.7	5
37	Exsolution of Embedded Nanoparticles in Defect Engineered Perovskite Layers. <i>ACS Nano</i> , 2021 , 15, 4546-4560	16.7	5
36	Au Nanoparticles as Template for Defect Formation in Memristive SrTiO ₃ Thin Films. <i>Nanomaterials</i> , 2018 , 8,	5.4	5
35	Spectroscopic elucidation of ionic motion processes in tunnel oxide-based memristive devices. <i>Faraday Discussions</i> , 2019 , 213, 215-230	3.6	4
34	Geometric shadowing from rippled SrRuO ₃ /SrTiO ₃ surface templates induces self-organization of epitaxial SrZrO ₃ nanowires. <i>Physical Review B</i> , 2006 , 74,	3.3	4
33	The atomic structure of the interface of Au on YBa ₂ Cu ₃ O ₇ (001). <i>Philosophical Magazine Letters</i> , 1996 , 74, 25-32	1	4

32	Determination of the interfacial structure of YBa ₂ Cu ₃ O ₇ /SrRuO ₃ thin-film heterostructures. <i>Philosophical Magazine Letters</i> , 1994 , 69, 253-259	1	4
31	Competition between V ₂ O ₃ phases deposited by one-step reactive sputtering process on polycrystalline conducting electrode. <i>Thin Solid Films</i> , 2020 , 705, 138063	2.2	3
30	Redox-based memristive metal-oxide devices 2018 , 489-522		3
29	In situ optical characterization of LaAlO ₃ epitaxy on SrTiO ₃ (001). <i>Europhysics Letters</i> , 2015 , 109, 37006	1.6	3
28	HTS multilayer technology for optimal bit-error rate RSFQ cells. <i>IEEE Transactions on Applied Superconductivity</i> , 2003 , 13, 409-412	1.8	3
27	HTS technology for implementing RSFQ cells with large noise immunity. <i>Physica C: Superconductivity and Its Applications</i> , 2002 , 372-376, 139-142	1.3	3
26	Phonon-Enhanced Near-Field Spectroscopy to Extract the Local Electronic Properties of Buried 2D Electron Systems in Oxide Heterostructures. <i>Advanced Functional Materials</i> , 2020 , 30, 2004767	15.6	3
25	Photoemission electron microscopy of magneto-ionic effects in La _{0.7} Sr _{0.3} MnO ₃ . <i>APL Materials</i> , 2020 , 8, 111102	5.7	3
24	Stoichiometry and Termination Control of LaAlO ₃ /SrTiO ₃ Bilayer Interfaces. <i>Advanced Materials Interfaces</i> , 2021 , 8, 2001477	4.6	3
23	Chemical Structure of Conductive Filaments in Tantalum Oxide Memristive Devices and Its Implications for the Formation Mechanism. <i>Advanced Electronic Materials</i> , 2100936	6.4	3
22	Structure and orbital ordering of ultrathin LaVO ₃ probed by atomic resolution electron microscopy and Raman spectroscopy. <i>Physica Status Solidi - Rapid Research Letters</i> , 2017 , 11, 1600350	2.5	2
21	Direct Observation of Redox Switching in Resistive Memory Devices Operated In-situ in a Transmission Electron Microscope by Electron Energy Loss Spectroscopy and Off-Axis Electron Holography. <i>Microscopy and Microanalysis</i> , 2016 , 22, 52-53	0.5	2
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