Uwe Schroeder

List of Publications by Year
in descending order

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193 papers	14,366 citations	19657 61 h-index	21540 114 g-index
198 all docs	198 docs citations	198 times ranked	5129 citing authors

#	Article	IF	Citations
1	Harnessing Phase Transitions in Antiferroelectric ZrO₂ Using the Size Effect. Advanced Electronic Materials, 2022, 8, 2100556.	5.1	17
2	Many routes to ferroelectric HfO2: A review of current deposition methods. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2022, 40, .	2.1	60
3	1T1C FeRAM Memory Array Based on Ferroelectric HZO With Capacitor Under Bitline. IEEE Journal of the Electron Devices Society, 2022, 10, 29-34.	2.1	24
4	Raman Spectroscopy as a Key Method to Distinguish the Ferroelectric Orthorhombic Phase in Thin ZrO₂â€Based Films. Physica Status Solidi - Rapid Research Letters, 2022, 16, .	2.4	15
5	High-Performance Operation and Solder Reflow Compatibility in BEOL-Integrated 16-kb HfO₂: Si-Based 1T-1C FeRAM Arrays. IEEE Transactions on Electron Devices, 2022, 69, 2108-2114.	3.0	13
6	MOx in ferroelectric memories. , 2022, , 245-279.		0
7	Atomic layer etching of ferroelectric hafnium zirconium oxide thin films enables giant tunneling electroresistance. Applied Physics Letters, 2022, 120, .	3.3	11
8	The fundamentals and applications of ferroelectric HfO2. Nature Reviews Materials, 2022, 7, 653-669.	48.7	162
9	Temperatureâ€Dependent Phase Transitions in Hf_xZr_{1â€x}O₂ Mixed Oxides: Indications of a Proper Ferroelectric Material. Advanced Electronic Materials, 2022, 8, .	5.1	22
10	Oxygen vacancy concentration as a function of cycling and polarization state in TiN/Hf0.5Zr0.5O2/TiN ferroelectric capacitors studied by x-ray photoemission electron microscopy. Applied Physics Letters, 2022, 120, .	3.3	16
11	Influence of Interfacial Oxide Layers in Hf_{0.5}Zr_{0.5}O₂ based ferroelectric capacitors on reliability performance. , 2022, , .		2
12	BEOL Integrated Ferroelectric HfO₂ based Capacitors for FeRAM: Extrapolation of Reliability Performance to Use Conditions. , 2022, , .		0
13	Demonstration of Fatigue and Recovery Phenomena in Hf_{0.5}Zr_{0.5}O₂-based 1T1C FeRAM Memory Arrays. , 2022, , .		4
14	Reliability Study of 1T1C FeRAM Arrays With Hf_{0.5}Zr_{0.5}Oâ‚‚ Thickness Scaling. IEEE Journal of the Electron Devices Society, 2022, 10, 778-783.	2.1	9
15	Memory Window Enhancement in Antiferroelectric RAM by Hf Doping in ZrOâ‚‚. IEEE Electron Device Letters, 2022, 43, 1447-1450.	3.9	6
16	Influence of Si-Doping on 45 nm Thick Ferroelectric ZrO₂ Films. ACS Applied Electronic Materials, 2022, 4, 3648-3654.	4.3	10
17	Stabilizing the ferroelectric phase in HfO₂-based films sputtered from ceramic targets under ambient oxygen. Nanoscale, 2021, 13, 912-921.	5.6	39
18	Ferroelectricity in bulk hafnia. Nature Materials, 2021, 20, 718-719.	27.5	18

#	Article	IF	Citations
19	Impact of vacancies and impurities on ferroelectricity in PVD- and ALD-grown HfO2 films. Applied Physics Letters, 2021, 118, .	3.3	44
20	Impact of area scaling on the ferroelectric properties of back-end of line compatible Hf0.5Zr0.5O2 and Si:HfO2-based MFM capacitors. Applied Physics Letters, 2021, 118, .	3.3	25
21	Chemical Stability of IrO₂ Top Electrodes in Ferroelectric Hf_{0.5}Zr_{0.5}O₂â€Based Metalâ€“Insulatorâ€“Metal Structures: The Impact of Annealing Gas. Physica Status Solidi - Rapid Research Letters, 2021, 15, 2100027.	2.4	14
22	Reliability aspects of ferroelectric hafnium oxide for application in non-volatile memories. , 2021, , .		9
23	Impact of Iridium Oxide Electrodes on the Ferroelectric Phase of Thin Hf_{0.5}Zr_{0.5}O₂ Films. Physica Status Solidi - Rapid Research Letters, 2021, 15, 2100012.	2.4	33
24	Next generation ferroelectric materials for semiconductor process integration and their applications. Journal of Applied Physics, 2021, 129, .	2.5	181
25	The Case for Ferroelectrics in Future Memory Devices. , 2021, , .		5
26	Electronic Contributions to Ferroelectricity and Field-Induced Phase Transitions in Doped-HfO2. , 2021, , .		3
27	Special topic on ferroelectricity in hafnium oxide: Materials and devices. Applied Physics Letters, 2021, 118, .	3.3	14
28	High-Endurance and Low-Voltage operation of 1T1C FeRAM Arrays for Nonvolatile Memory Application. , 2021, , .		24
29	Temperature-Dependent Subcycling Behavior of Si-Doped HfO₂ Ferroelectric Thin Films. ACS Applied Electronic Materials, 2021, 3, 2415-2422.	4.3	12
30	Domains and domain dynamics in fluorite-structured ferroelectrics. Applied Physics Reviews, 2021, 8, .	11.3	50
31	Bipolar conductivity in ferroelectric La:HfZrO films. Applied Physics Letters, 2021, 118, .	3.3	5
32	The atomic and electronic structure of Hf0.5Zr0.5O2 and Hf0.5Zr0.5O2:La films. Journal of Science: Advanced Materials and Devices, 2021, 6, 595-600.	3.1	7
33	An unexplored antipolar phase in HfO2 from first principles and implication for wake-up mechanism. Applied Physics Letters, 2021, 119, 082903.	3.3	10
34	Pyroelectric dependence of atomic layer-deposited Hf0.5Zr0.5O2 on film thickness and annealing temperature. Applied Physics Letters, 2021, 119, .	3.3	7
35	Interplay between oxygen defects and dopants: effect on structure and performance of HfO₂-based ferroelectrics. Inorganic Chemistry Frontiers, 2021, 8, 2650-2672.	6.0	62
36	Influence of oxygen source on the ferroelectric properties of ALD grown Hf_{1-x}Zr_xO₂ films. Journal Physics D: Applied Physics, 2021, 54, 035102.	2.8	24

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37	Piezoelectricity in hafnia. Nature Communications, 2021, 12, 7301.	12.8	37
38	Binary ferroelectric oxides for future computing paradigms. MRS Bulletin, 2021, 46, 1071-1079.	3.5	11
39	16kbit HfO₂:Si-based 1T-1C FeRAM Arrays Demonstrating High Performance Operation and Solder Reflow Compatibility. , 2021, , .		12
40	A Gibbs energy view of double hysteresis in ZrO2 and Si-doped HfO2. Applied Physics Letters, 2020, 117, .	3.3	14
41	Performance assessment of BEOL-integrated HfO₂-based ferroelectric capacitors for FeRAM memory arrays. , 2020, , .		10
42	Involvement of Unsaturated Switching in the Endurance Cycling of Siâ€•doped HfO₂ Ferroelectric Thin Films. Advanced Electronic Materials, 2020, 6, 2000264.	5.1	56
43	Reliability improvement of ferroelectric Hf_{0.5}Zr_{0.5}O₂ thin films by Lanthanum doping for FeRAM applications. , 2020, , .		3
44	Intrinsic or nucleation-driven switching: An insight from nanoscopic analysis of negative capacitance Hf1âˆ’xZrxO2-based structures. Applied Physics Letters, 2020, 117, .	3.3	11
45	Influence of Oxygen Content on the Structure and Reliability of Ferroelectric Hf_{<i>x</i>}Zr_{1â€“<i>x</i>}O₂ Layers. ACS Applied Electronic Materials, 2020, 2, 3618-3626.	4.3	65
46	Lanthanum doping induced structural changes and their implications on ferroelectric properties of Hf1âˆ’xZrxO2 thin film. Applied Physics Letters, 2020, 117, .	3.3	17
47	Enhanced Ferroelectric Polarization in TiN/HfO₂/TiN Capacitors by Interface Design. ACS Applied Electronic Materials, 2020, 2, 3152-3159.	4.3	33
48	Whatâ€™s next for negative capacitance electronics?. Nature Electronics, 2020, 3, 504-506.	26.0	42
49	Wakeâ€•Up Mechanisms in Ferroelectric Lanthanumâ€•Doped Hf_{0.5}Zr_{0.5}O₂ Thin Films. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 2000281.	1.8	18
50	SoC Compatible 1T1C FeRAM Memory Array Based on Ferroelectric Hf0.5Zr0.5O2. , 2020, , .		59
51	Memory technologyâ€”a primer for material scientists. Reports on Progress in Physics, 2020, 83, 086501.	20.1	64
52	Depolarization as Driving Force in Antiferroelectric Hafnia and Ferroelectric Wake-Up. ACS Applied Electronic Materials, 2020, 2, 1583-1595.	4.3	73
53	Thickness Scaling of AFE-RAM ZrO₂ Capacitors with High Cycling Endurance and Low Process Temperature. , 2020, , .		4
54	Review of defect chemistry in fluorite-structure ferroelectrics for future electronic devices. Journal of Materials Chemistry C, 2020, 8, 10526-10550.	5.5	94

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55	The Past, the Present, and the Future of Ferroelectric Memories. IEEE Transactions on Electron Devices, 2020, 67, 1434-1443.	3.0	226
56	Interface chemistry of pristine TiN/La:Hf0.5Zr0.5O2 capacitors. Applied Physics Letters, 2020, 116, .	3.3	35
57	Hafnium oxide as an enabler for competitive ferroelectric devices. , 2020, , .		0
58	Physical chemistry of the TiN/Hf0.5Zr0.5O2 interface. Journal of Applied Physics, 2020, 127, .	2.5	101
59	HfxZr1â€‰âˆ’â€‰xO2 thin films for semiconductor applications: An Hf- and Zr-ALD precursor comparison. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, .	2.1	25
60	Universal Curie constant and pyroelectricity in doped ferroelectric HfO2 thin films. Nano Energy, 2020, 74, 104733.	16.0	27
61	Polarization switching in thin doped HfO2 ferroelectric layers. Applied Physics Letters, 2020, 117, .	3.3	45
62	AFE-like Hysteresis Loops from Doped HfO₂: Field Induced Phase Changes and Depolarization Fields. , 2020, , .		2
63	Impact of Oxygen Vacancy Content in Ferroelectric HZO films on the Device Performance. , 2020, , .		42
64	Switching in Nanoscale Hafnium Oxide-Based Ferroelectric Transistors. Topics in Applied Physics, 2020, , 97-108.	0.8	1
65	Nonvolatile Field-Effect Transistors Using Ferroelectric-Doped HfO2 Films. Topics in Applied Physics, 2020, , 79-96.	0.8	2
66	Recent progress for obtaining the ferroelectric phase in hafnium oxide based films: impact of oxygen and zirconium. Japanese Journal of Applied Physics, 2019, 58, SL0801.	1.5	62
67	On the Origin of the Large Remanent Polarization in La:HfO₂. Advanced Electronic Materials, 2019, 5, 1900303.	5.1	85
68	Negative Capacitance for Electrostatic Supercapacitors. Advanced Energy Materials, 2019, 9, 1901154.	19.5	50
69	Bulk Depolarization Fields as a Major Contributor to the Ferroelectric Reliability Performance in Lanthanum Doped Hf_{0.5}Zr_{0.5}O₂ Capacitors. Advanced Materials Interfaces, 2019, 6, 1901180.	3.7	59
70	Fluid Imprint and Inertial Switching in Ferroelectric La:HfO₂ Capacitors. ACS Applied Materials & Interfaces, 2019, 11, 35115-35121.	8.0	58
71	Local structural investigation of hafnia-zirconia polymorphs in powders and thin films by X-ray absorption spectroscopy. Acta Materialia, 2019, 180, 158-169.	7.9	19
72	Towards Oxide Electronics: a Roadmap. Applied Surface Science, 2019, 482, 1-93.	6.1	236

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73	Broad Phase Transition of Fluoriteâ€Structured Ferroelectrics for Large Electrocaloric Effect. Physica Status Solidi - Rapid Research Letters, 2019, 13, 1900177.	2.4	8
74	Origin of Ferroelectric Phase in Undoped HfO₂ Films Deposited by Sputtering. Advanced Materials Interfaces, 2019, 6, 1900042.	3.7	118
75	Dopants in Atomic Layer Deposited HfO2 Thin Films. , 2019, , 49-74.		13
76	Impact of Electrodes on the Ferroelectric Properties. , 2019, , 341-364.		3
77	Effect of Surface/Interface Energy and Stress on the Ferroelectric Properties. , 2019, , 145-172.		5
78	Structural Origin of Temperature-Dependent Ferroelectricity. , 2019, , 193-216.		2
79	Field Cycling Behavior of Ferroelectric HfO2-Based Capacitors. , 2019, , 381-398.		4
80	Ferroelectric One Transistor/One Capacitor Memory Cell. , 2019, , 413-424.		5
81	Antiferroelectric One Transistor/One Capacitor Memory Cell. , 2019, , 425-435.		1
82	Ferroelectric Hf_{1-x}Zr_xO₂ memories: device reliability and depolarization fields. , 2019, , .		20
83	Variants of Ferroelectric Hafnium Oxide based Nonvolatile Memories. , 2019, , .		0
84	Material perspectives of HfO₂-based ferroelectric films for device applications. , 2019, , .		28
85	Next Generation Ferroelectric Memories enabled by Hafnium Oxide. , 2019, , .		24
86	Demonstration of BEOL-compatible ferroelectric Hf_{0.5}Zr_{0.5}O₂ scaled FeRAM co-integrated with 130nm CMOS for embedded NVM applications. , 2019, , .		57
87	Identification of the nature of traps involved in the field cycling of Hf0.5Zr0.5O2-based ferroelectric thin films. Acta Materialia, 2019, 166, 47-55.	7.9	76
88	Thermodynamic and Kinetic Origins of Ferroelectricity in Fluorite Structure Oxides. Advanced Electronic Materials, 2019, 5, 1800522.	5.1	128
89	Unveiling the double-well energy landscape in a ferroelectric layer. Nature, 2019, 565, 464-467.	27.8	286
90	Comparative Study of Reliability of Ferroelectric and Anti-Ferroelectric Memories. IEEE Transactions on Device and Materials Reliability, 2018, 18, 154-162.	2.0	57

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91	Pyroelectricity of silicon-doped hafnium oxide thin films. Applied Physics Letters, 2018, 112, 142901.	3.3	42
92	Origin of Temperatureâ€Dependent Ferroelectricity in Siâ€Doped HfO₂. Advanced Electronic Materials, 2018, 4, 1700489.	5.1	67
93	Lanthanum-Doped Hafnium Oxide: A Robust Ferroelectric Material. Inorganic Chemistry, 2018, 57, 2752-2765.	4.0	241
94	Analysis of Performance Instabilities of Hafniaâ€Based Ferroelectrics Using Modulus Spectroscopy and Thermally Stimulated Depolarization Currents. Advanced Electronic Materials, 2018, 4, 1700547.	5.1	51
95	Improved Ferroelectric Switching Endurance of La-Doped Hf_{0.5}Zr_{0.5}O₂ Thin Films. ACS Applied Materials & Interfaces, 2018, 10, 2701-2708.	8.0	207
96	Atomic Structure of Domain and Interphase Boundaries in Ferroelectric HfO₂. Advanced Materials Interfaces, 2018, 5, 1701258.	3.7	114
97	Built-In Bias Generation in Anti-Ferroelectric Stacks: Methods and Device Applications. IEEE Journal of the Electron Devices Society, 2018, 6, 1019-1025.	2.1	45
98	Understanding the formation of the metastable ferroelectric phase in hafniaâ€“zirconia solid solution thin films. Nanoscale, 2018, 10, 716-725.	5.6	159
99	Demonstration of High-speed Hysteresis-free Negative Capacitance in Ferroelectric Hf<inf>0.5</inf>Zr<inf>0.5</inf>O<inf>2</inf>. , 2018, , .		45
100	Physical Approach to Ferroelectric Impedance Spectroscopy: The Rayleigh Element. Physical Review Applied, 2018, 10, .	3.8	14
101	Review and perspective on ferroelectric HfO2-based thin films for memory applications. MRS Communications, 2018, 8, 795-808.	1.8	360
102	On the stabilization of ferroelectric negative capacitance in nanoscale devices. Nanoscale, 2018, 10, 10891-10899.	5.6	110
103	Effect of Annealing Ferroelectric HfO₂ Thin Films: In Situ, High Temperature Xâ€Ray Diffraction. Advanced Electronic Materials, 2018, 4, 1800091.	5.1	81
104	On the relationship between field cycling and imprint in ferroelectric Hf0.5Zr0.5O2. Journal of Applied Physics, 2018, 123, .	2.5	75
105	Nanoscopic studies of domain structure dynamics in ferroelectric La:HfO2 capacitors. Applied Physics Letters, 2018, 112, .	3.3	85
106	Ferroelectric negative capacitance domain dynamics. Journal of Applied Physics, 2018, 123, .	2.5	72
107	Embedding hafnium oxide based FeFETs in the memory landscape. , 2018, , .		19
108	Hafnium oxide based ferroelectric devices for memories and beyond. , 2018, , .		4

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109	Ferroelectric hafnium oxide for ferroelectric random-access memories and ferroelectric field-effect transistors. MRS Bulletin, 2018, 43, 340-346.	3.5	222
110	Genuinely Ferroelectric Sub-1-Volt-Switchable Nanodomains in Hf_{<i>x</i>}Zr_(1â€“<i>x</i>)O₂ Ultrathin Capacitors. ACS Applied Materials & Interfaces, 2018, 10, 30514-30521.	8.0	36
111	Subthreshold Behavior of Floating-Gate MOSFETs With Ferroelectric Capacitors. IEEE Transactions on Electron Devices, 2018, 65, 4641-4645.	3.0	10
112	Switching Kinetics in Nanoscale Hafnium Oxide Based Ferroelectric Field-Effect Transistors. ACS Applied Materials & Interfaces, 2017, 9, 3792-3798.	8.0	252
113	Domain Pinning: Comparison of Hafnia and PZT Based Ferroelectrics. Advanced Electronic Materials, 2017, 3, 1600505.	5.1	99
114	A comprehensive study on the structural evolution of HfO₂thin films doped with various dopants. Journal of Materials Chemistry C, 2017, 5, 4677-4690.	5.5	250
115	Optimizing process conditions for improved Hf1â^’xZrxO2 ferroelectric capacitor performance. Microelectronic Engineering, 2017, 178, 48-51.	2.4	88
116	Ferroelectric and piezoelectric properties of Hf1-xZrxO2 and pure ZrO2 films. Applied Physics Letters, 2017, 110, .	3.3	141
117	Reliability Comparison of ZrO₂-Based DRAM High-k Dielectrics Under DC and AC Stress. IEEE Transactions on Device and Materials Reliability, 2017, 17, 324-330.	2.0	9
118	Effect of acceptor doping on phase transitions of HfO2 thin films for energy-related applications. Nano Energy, 2017, 36, 381-389.	16.0	64
119	Surface and grain boundary energy as the key enabler of ferroelectricity in nanoscale hafnia-zirconia: a comparison of model and experiment. Nanoscale, 2017, 9, 9973-9986.	5.6	249
120	Ferroelectric properties of lightly doped La:HfO2 thin films grown by plasma-assisted atomic layer deposition. Applied Physics Letters, 2017, 111, .	3.3	69
121	Silicon-doped hafnium oxide anti-ferroelectric thin films for energy storage. Journal of Applied Physics, 2017, 122, .	2.5	93
122	Si Doped Hafnium Oxideâ€"A â€œFragileâ€•Ferroelectric System. Advanced Electronic Materials, 2017, 3, 1700131.	5.1	136
123	A computational study of hafnia-based ferroelectric memories: from ab initio via physical modeling to circuit models of ferroelectric device. Journal of Computational Electronics, 2017, 16, 1236-1256.	2.5	33
124	Insights into antiferroelectrics from first-order reversal curves. Applied Physics Letters, 2017, 111, .	3.3	25
125	Modeling and design considerations for negative capacitance field-effect transistors. , 2017, , .		22
126	Anti-ferroelectric-like ZrO<inf>2</inf> non-volatile memory: Inducing non-volatility within state-of-the-art DRAM. , 2017, , .		2

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127	Anti-ferroelectric ZrO<inf>2</inf>, an enabler for low power non-volatile 1T-1C and 1T random access memories. , 2017, , .		12
128	Physical and circuit modeling of HfO<inf>2</inf> based ferroelectric memories and devices. , 2017, , .		1
129	Reliability aspects of novel anti-ferroelectric non-volatile memories compared to hafnia based ferroelectric memories. , 2017, , .		4
130	Physical Mechanisms behind the Fieldâ€Cycling Behavior of HfO₂â€Based Ferroelectric Capacitors. Advanced Functional Materials, 2016, 26, 4601-4612.	14.9	586
131	Impact of charge trapping on the ferroelectric switching behavior of doped HfO₂. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 270-273.	1.8	28
132	Low leakage ZrO2 based capacitors for sub 20â€‰nm dynamic random access memory technology nodes. Journal of Applied Physics, 2016, 119, .	2.5	27
133	How to make DRAM non-volatile? Anti-ferroelectrics: A new paradigm for universal memories. , 2016, , .		40
134	Nonvolatile Field-Effect Transistors Using Ferroelectric Doped HfO2 Films. Topics in Applied Physics, 2016, , 57-72.	0.8	7
135	Nonvolatile Random Access Memory and Energy Storage Based on Antiferroelectric Like Hysteresis in ZrO₂. Advanced Functional Materials, 2016, 26, 7486-7494.	14.9	161
136	Materials for DRAM Memory Cell Applications. Materials and Energy, 2016, , 369-401.	0.1	3
137	Structural Changes Underlying Fieldâ€Cycling Phenomena in Ferroelectric HfO₂ Thin Films. Advanced Electronic Materials, 2016, 2, 1600173.	5.1	301
138	Atomic layer deposited TiO /AlO nanolaminates as moisture barriers for organic devices. Organic Electronics, 2016, 38, 84-88.	2.6	10
139	Root cause of degradation in novel HfO<inf>2</inf>-based ferroelectric memories. , 2016, , .		14
140	Direct Observation of Negative Capacitance in Polycrystalline Ferroelectric HfO₂. Advanced Functional Materials, 2016, 26, 8643-8649.	14.9	234
141	Charge-Trapping Phenomena in HfO₂-Based FeFET-Type Nonvolatile Memories. IEEE Transactions on Electron Devices, 2016, 63, 3501-3507.	3.0	233
142	Impact of field cycling on HfO₂ based non-volatile memory devices. , 2016, , .		6
143	Comparison of hafnia and PZT based ferroelectrics for future non-volatile FRAM applications. , 2016, , .		21
144	Effect of Zr Content on the Wake-Up Effect in Hf_{1â€“<i>x</i>}Zr_{<i>x</i>}O₂ Films. ACS Applied Materials & Interfaces, 2016, 8, 15466-15475.	8.0	172

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145	Conduction barrier offset engineering for DRAM capacitor scaling. Solid-State Electronics, 2016, 115, 133-139.	1.4	35
146	The Rayleigh law in silicon doped hafnium oxide ferroelectric thin films. Physica Status Solidi - Rapid Research Letters, 2015, 9, 589-593.	2.4	10
147	Schottky barrier height engineering for next generation DRAM capacitors. , 2015, , .		1
148	Thickness dependent barrier performance of permeation barriers made from atomic layer deposited alumina for organic devices. Organic Electronics, 2015, 17, 138-143.	2.6	66
149	Ultra-thin ZrO2/SrO/ZrO2 insulating stacks for future dynamic random access memory capacitor applications. Journal of Applied Physics, 2015, 117, .	2.5	17
150	Correspondence - Dynamic leakage current compensation revisited. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2015, 62, 596-599.	3.0	10
151	Ferroelectricity and Antiferroelectricity of Doped Thin HfO₂â€Based Films. Advanced Materials, 2015, 27, 1811-1831.	21.0	777
152	Complex Internal Bias Fields in Ferroelectric Hafnium Oxide. ACS Applied Materials & Interfaces, 2015, 7, 20224-20233.	8.0	200
153	On the structural origins of ferroelectricity in HfO2 thin films. Applied Physics Letters, 2015, 106, .	3.3	447
154	Breakdown and Protection of ALD Moisture Barrier Thin Films. ACS Applied Materials & Interfaces, 2015, 7, 22121-22127.	8.0	46
155	Low Temperature Compatible Hafnium Oxide Based Ferroelectrics. Ferroelectrics, 2015, 480, 16-23.	0.6	24
156	Stabilizing the ferroelectric phase in doped hafnium oxide. Journal of Applied Physics, 2015, 118, .	2.5	424
157	Electric field and temperature scaling of polarization reversal in silicon doped hafnium oxide ferroelectric thin films. Acta Materialia, 2015, 99, 240-246.	7.9	89
158	Ferroelectric phase transitions in nanoscale HfO 2 films enable giant pyroelectric energy conversion and highly efficient supercapacitors. Nano Energy, 2015, 18, 154-164.	16.0	175
159	Integration of molecular-layer-deposited aluminum alkoxide interlayers into inorganic nanolaminate barriers for encapsulation of organic electronics with improved stress resistance. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2015, 33, .	2.1	13
160	Impact of different dopants on the switching properties of ferroelectric hafniumoxide. Japanese Journal of Applied Physics, 2014, 53, 08LE02.	1.5	318
161	OLED compatible water-based nanolaminate encapsulation systems using ozone based starting layer. Organic Electronics, 2014, 15, 2587-2592.	2.6	21
162	Conduction Mechanisms and Breakdown Characteristics of $hbox{Al}_{2}hbox{O}_{3}$-Doped $hbox{ZrO}_{2}$ High-k Dielectrics for Three-Dimensional Stacked Metalâ€“Insulatorâ€“Metal Capacitors. IEEE Transactions on Device and Materials Reliability, 2014, 14, 154-160.	2.0	25

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163	About the deformation of ferroelectric hystereses. Applied Physics Reviews, 2014, 1, 041103.	11.3	159
164	Impact of Scaling on the Performance of HfO₂-Based Ferroelectric Field Effect Transistors. IEEE Transactions on Electron Devices, 2014, 61, 3699-3706.	3.0	132
165	Film properties of low temperature HfO2 grown with H2O, O3, or remote O2-plasma. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2014, 32, .	2.1	19
166	Electric Field Cycling Behavior of Ferroelectric Hafnium Oxide. ACS Applied Materials & Interfaces, 2014, 6, 19744-19751.	8.0	154
167	Origin of the endurance degradation in the novel HfO<inf>2</inf>-based 1T ferroelectric non-volatile memories. , 2014, , .		39
168	Identification of the ferroelectric switching process and dopant-dependent switching properties in orthorhombic HfO2: A first principles insight. Applied Physics Letters, 2014, 104, .	3.3	183
169	Strontium doped hafnium oxide thin films: Wide process window for ferroelectric memories. , 2013, , .		84
170	Reliability Characteristics of Ferroelectric $ hbox{Si:HfO}_{2}$ Thin Films for Memory Applications. IEEE Transactions on Device and Materials Reliability, 2013, 13, 93-97.	2.0	176
171	Influence of Frequency Dependent Time to Breakdown on High-K/Metal Gate Reliability. IEEE Transactions on Electron Devices, 2013, 60, 2368-2371.	3.0	20
172	(Invited) Hafnium Oxide Based CMOS Compatible Ferroelectric Materials. ECS Transactions, 2013, 50, 15-20.	0.5	4
173	Hafnium Oxide Based CMOS Compatible Ferroelectric Materials. ECS Journal of Solid State Science and Technology, 2013, 2, N69-N72.	1.8	101
174	Reliability of $hbox{SrRuO}_{3}hbox{/SrTiO}_{3}hbox{/SrRuO}_{3}$ Stacks for DRAM Applications. IEEE Electron Device Letters, 2012, 33, 1699-1701.	3.9	21
175	Downscaling ferroelectric field effect transistors by using ferroelectric Si-doped HfO2. , 2012, , .		3
176	Ten-Nanometer Ferroelectric $hbox{Si:HfO}_{2}$ Films for Next-Generation FRAM Capacitors. IEEE Electron Device Letters, 2012, 33, 1300-1302.	3.9	136
177	Ferroelectricity in Gd-Doped HfO₂Thin Films. ECS Journal of Solid State Science and Technology, 2012, 1, N123-N126.	1.8	224
178	Non-volatile data storage in HfO2-based ferroelectric FETs. , 2012, , .		3
179	Incipient Ferroelectricity in Alâ€Doped HfO₂ Thin Films. Advanced Functional Materials, 2012, 22, 2412-2417.	14.9	640
180	Reliability of Al2O3-doped ZrO2 high-k dielectrics in three-dimensional stacked metal-insulator-metal capacitors. Journal of Applied Physics, 2010, 108, .	2.5	32

#	Article	IF	Citations
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