Uwe Schroeder

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

179	9,547	51	94
papers	citations	h-index	g-index
198	11,692	6	6.53
ext. papers	ext. citations	avg, IF	L-index

#	Paper	IF	Citations
179	High-Performance Operation and Solder Reflow Compatibility in BEOL-Integrated 16-Kb HfO Si-Based 1T-1C FeRAM Arrays. *IEEE Transactions on Electron Devices*, **2022**, 1-7	2.9	2
178	Many routes to ferroelectric HfO2: A review of current deposition methods. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2022**, 40, 010803	2.9	11
177	MOx in ferroelectric memories **2022**, 245-279		
176	Atomic layer etching of ferroelectric hafnium zirconium oxide thin films enables giant tunneling electroresistance. *Applied Physics Letters*, **2022**, 120, 122901	3.4	3
175	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, 202902	3.4	6
174	Piezoelectricity in hafnia.. *Nature Communications*, **2021**, 12, 7301	17.4	4
173	Binary ferroelectric oxides for future computing paradigms. *MRS Bulletin*, **2021**, 46, 1071-1079	3.2	3
172	1T1C FeRAM memory array based on ferroelectric HZO with capacitor under bitline. *IEEE Journal of the Electron Devices Society*, **2021**, 1-1	2.3	4
171	Influence of oxygen source on the ferroelectric properties of ALD grown Hf1-xZrxO2 films. *Journal Physics D: Applied Physics*, **2021**, 54, 035102	3	16
170	Reliability aspects of ferroelectric hafnium oxide for application in non-volatile memories **2021**,		3
169	Impact of Iridium Oxide Electrodes on the Ferroelectric Phase of Thin Hf0.5Zr0.5O2 Films. *Physica Status Solidi - Rapid Research Letters*, **2021**, 15, 2100012	2.5	15
168	Next generation ferroelectric materials for semiconductor process integration and their applications. *Journal of Applied Physics*, **2021**, 129, 100901	2.5	57
167	Electronic Contributions to Ferroelectricity and Field-Induced Phase Transitions in Doped-HfO2 **2021**,		1
166	High-Endurance and Low-Voltage operation of 1T1C FeRAM Arrays for Nonvolatile Memory Application **2021**,		3
165	Temperature-Dependent Subcycling Behavior of Si-Doped HfO2 Ferroelectric Thin Films. *ACS Applied Electronic Materials*, **2021**, 3, 2415-2422	4	8
164	Domains and domain dynamics in fluorite-structured ferroelectrics. *Applied Physics Reviews*, **2021**, 8, 021312	17.3	18
163	Bipolar conductivity in ferroelectric La:HfZrO films. *Applied Physics Letters*, **2021**, 118, 262903	3.4	0

162	Stabilizing the ferroelectric phase in HfO-based films sputtered from ceramic targets under ambient oxygen. *Nanoscale*, **2021**, 13, 912-921	7.7	16
161	Ferroelectricity in bulk hafnia. *Nature Materials*, **2021**, 20, 718-719	27	10
160	Impact of vacancies and impurities on ferroelectricity in PVD- and ALD-grown HfO2 films. *Applied Physics Letters*, **2021**, 118, 032903	3.4	18
159	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, 062904	3.4	9
158	Chemical Stability of IrO2 Top Electrodes in Ferroelectric Hf0.5Zr0.5O2-Based MetalInsulatorMetal Structures: The Impact of Annealing Gas. *Physica Status Solidi - Rapid Research Letters*, **2021**, 15, 2100027	2.5	5
157	The atomic and electronic structure of Hf0.5Zr0.5O2 and Hf0.5Zr0.5O2:La films. *Journal of Science: Advanced Materials and Devices*, **2021**, 6, 595-595	4.2	0
156	An unexplored antipolar phase in HfO2 from first principles and implication for wake-up mechanism. *Applied Physics Letters*, **2021**, 119, 082903	3.4	3
155	Pyroelectric dependence of atomic layer-deposited Hf0.5Zr0.5O2 on film thickness and annealing temperature. *Applied Physics Letters*, **2021**, 119, 112903	3.4	0
154	Interplay between oxygen defects and dopants: effect on structure and performance of HfO2-based ferroelectrics. *Inorganic Chemistry Frontiers*, **2021**, 8, 2650-2672	6.8	21
153	Memory technology-a primer for material scientists. *Reports on Progress in Physics*, **2020**, 83, 086501	14.4	32
152	Depolarization as Driving Force in Antiferroelectric Hafnia and Ferroelectric Wake-Up. *ACS Applied Electronic Materials*, **2020**, 2, 1583-1595	4	43
151	Thickness Scaling of AFE-RAM ZrO2 Capacitors with High Cycling Endurance and Low Process Temperature **2020**,		2
150	Review of defect chemistry in fluorite-structure ferroelectrics for future electronic devices. *Journal of Materials Chemistry C*, **2020**, 8, 10526-10550	7.1	50
149	The Past, the Present, and the Future of Ferroelectric Memories. *IEEE Transactions on Electron Devices*, **2020**, 67, 1434-1443	2.9	109
148	Interface chemistry of pristine TiN/La: Hf 0.5 Zr 0.5 O 2 capacitors. *Applied Physics Letters*, **2020**, 116, 252903	3.4	23
147	Physical chemistry of the TiN/Hf0.5Zr0.5O2 interface. *Journal of Applied Physics*, **2020**, 127, 064105	2.5	57
146	HfxZr1 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, 022402	2.9	15
145	Universal Curie constant and pyroelectricity in doped ferroelectric HfO2 thin films. *Nano Energy*, **2020**, 74, 104733	17.1	10

144	AFE-like Hysteresis Loops from Doped HfO2: Field Induced Phase Changes and Depolarization Fields **2020**,		1
143	Nonvolatile Field-Effect Transistors Using Ferroelectric-Doped HfO2 Films. *Topics in Applied Physics*, **2020**, 79-96	0.5	1
142	Impact of Oxygen Vacancy Content in Ferroelectric HZO films on the Device Performance **2020**,		15
141	Switching in Nanoscale Hafnium Oxide-Based Ferroelectric Transistors. *Topics in Applied Physics*, **2020**, 97-108	0.5	1
140	Polarization switching in thin doped HfO2 ferroelectric layers. *Applied Physics Letters*, **2020**, 117, 262904	3.4	21
139	A Gibbs energy view of double hysteresis in ZrO2 and Si-doped HfO2. *Applied Physics Letters*, **2020**, 117, 142904	3.4	7
138	**2020**,		3
137	Involvement of Unsaturated Switching in the Endurance Cycling of Si-doped HfO2 Ferroelectric Thin Films. *Advanced Electronic Materials*, **2020**, 6, 2000264	6.4	30
136	Reliability improvement of ferroelectric Hf0.5Zr0.5O2 thin films by Lanthanum doping for FeRAM applications **2020**,		2
135	Intrinsic or nucleation-driven switching: An insight from nanoscopic analysis of negative capacitance Hf1⊠ZrxO2-based structures. *Applied Physics Letters*, **2020**, 117, 172902	3.4	5
134	Influence of Oxygen Content on the Structure and Reliability of Ferroelectric HfxZr1⊠O2 Layers. *ACS Applied Electronic Materials*, **2020**, 2, 3618-3626	4	30
133	Lanthanum doping induced structural changes and their implications on ferroelectric properties of Hf1⊠ZrxO2 thin film. *Applied Physics Letters*, **2020**, 117, 092902	3.4	7
132	Enhanced Ferroelectric Polarization in TiN/HfO2/TiN Capacitors by Interface Design. *ACS Applied Electronic Materials*, **2020**, 2, 3152-3159	4	18
131	Wake-Up Mechanisms in Ferroelectric Lanthanum-Doped Hf0.5Zr0.5O2 Thin Films. *Physica Status Solidi (A) Applications and Materials Science*, **2020**, 217, 2000281	1.6	10
130	SoC Compatible 1T1C FeRAM Memory Array Based on Ferroelectric Hf0.5Zr0.5O2 **2020**,		21
129	Fluid Imprint and Inertial Switching in Ferroelectric La:HfO Capacitors. *ACS Applied Materials & Interfaces*, **2019**, 11, 35115-35121	9.5	40
128	Local structural investigation of hafnia-zirconia polymorphs in powders and thin films by X-ray absorption spectroscopy. *Acta Materialia*, **2019**, 180, 158-169	8.4	8
127	Towards Oxide Electronics: a Roadmap. *Applied Surface Science*, **2019**, 482, 1-93	6.7	160

126	Broad Phase Transition of Fluorite-Structured Ferroelectrics for Large Electrocaloric Effect. *Physica Status Solidi - Rapid Research Letters*, **2019**, 13, 1900177	2.5	7
125	Origin of Ferroelectric Phase in Undoped HfO2 Films Deposited by Sputtering. *Advanced Materials Interfaces*, **2019**, 6, 1900042	4.6	68
124	Dopants in Atomic Layer Deposited HfO2 Thin Films **2019**, 49-74		11
123	Impact of Electrodes on the Ferroelectric Properties **2019**, 341-364		2
122	Effect of Surface/Interface Energy and Stress on the Ferroelectric Properties **2019**, 145-172		4
121	Structural Origin of Temperature-Dependent Ferroelectricity **2019**, 193-216		2
120	Field Cycling Behavior of Ferroelectric HfO2-Based Capacitors **2019**, 381-398		3
119	Ferroelectric One Transistor/One Capacitor Memory Cell **2019**, 413-424		3
118	Antiferroelectric One Transistor/One Capacitor Memory Cell **2019**, 425-435		0
117	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	1.4	40
116	On the Origin of the Large Remanent Polarization in La:HfO2. *Advanced Electronic Materials*, **2019**, 5, 1900303	6.4	50
115	Negative Capacitance for Electrostatic Supercapacitors. *Advanced Energy Materials*, **2019**, 9, 1901154	21.8	31
114	Bulk Depolarization Fields as a Major Contributor to the Ferroelectric Reliability Performance in Lanthanum Doped Hf0.5Zr0.5O2 Capacitors. *Advanced Materials Interfaces*, **2019**, 6, 1901180	4.6	47
113	Ferroelectric Hf1-xZrxO2 memories: device reliability and depolarization fields **2019**,		15
112	Material perspectives of HfO2-based ferroelectric films for device applications **2019**,		19
111	Next Generation Ferroelectric Memories enabled by Hafnium Oxide **2019**,		13
110	**2019**,		24
109	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	8.4	46

108	Thermodynamic and Kinetic Origins of Ferroelectricity in Fluorite Structure Oxides. *Advanced Electronic Materials*, **2019**, 5, 1800522	6.4	71
107	Unveiling the double-well energy landscape in a ferroelectric layer. *Nature*, **2019**, 565, 464-467	50.4	190
106	Comparative Study of Reliability of Ferroelectric and Anti-Ferroelectric Memories. *IEEE Transactions on Device and Materials Reliability*, **2018**, 18, 154-162	1.6	42
105	Pyroelectricity of silicon-doped hafnium oxide thin films. *Applied Physics Letters*, **2018**, 112, 142901	3.4	32
104	Origin of Temperature-Dependent Ferroelectricity in Si-Doped HfO2. *Advanced Electronic Materials*, **2018**, 4, 1700489	6.4	44
103	Lanthanum-Doped Hafnium Oxide: A Robust Ferroelectric Material. *Inorganic Chemistry*, **2018**, 57, 2752-2765	5.1	161
102	Analysis of Performance Instabilities of Hafnia-Based Ferroelectrics Using Modulus Spectroscopy and Thermally Stimulated Depolarization Currents. *Advanced Electronic Materials*, **2018**, 4, 1700547	6.4	40
101	Improved Ferroelectric Switching Endurance of La-Doped HfZrO Thin Films. *ACS Applied Materials & Interfaces*, **2018**, 10, 2701-2708	9.5	134
100	Atomic Structure of Domain and Interphase Boundaries in Ferroelectric HfO2. *Advanced Materials Interfaces*, **2018**, 5, 1701258	4.6	78
99	Built-In Bias Generation in Anti-Ferroelectric Stacks: Methods and Device Applications. *IEEE Journal of the Electron Devices Society*, **2018**, 6, 1019-1025	2.3	29
98	Embedding hafnium oxide based FeFETs in the memory landscape **2018**,		11
97	Hafnium oxide based ferroelectric devices for memories and beyond **2018**,		2
96	Ferroelectric hafnium oxide for ferroelectric random-access memories and ferroelectric field-effect transistors. *MRS Bulletin*, **2018**, 43, 340-346	3.2	134
95	Genuinely Ferroelectric Sub-1-Volt-Switchable Nanodomains in Hf ZrO Ultrathin Capacitors. *ACS Applied Materials & Interfaces*, **2018**, 10, 30514-30521	9.5	27
94	Subthreshold Behavior of Floating-Gate MOSFETs With Ferroelectric Capacitors. *IEEE Transactions on Electron Devices*, **2018**, 65, 4641-4645	2.9	7
93	Understanding the formation of the metastable ferroelectric phase in hafnia-zirconia solid solution thin films. *Nanoscale*, **2018**, 10, 716-725	7.7	103
92	Demonstration of High-speed Hysteresis-free Negative Capacitance in Ferroelectric Hf0.5Zr0.5O2 **2018**,		22
91	Physical Approach to Ferroelectric Impedance Spectroscopy: The Rayleigh Element. *Physical Review Applied*, **2018**, 10,	4.3	5

No.	Publication	IF	Citations
90	Review and perspective on ferroelectric HfO2-based thin films for memory applications. *MRS Communications*, **2018**, 8, 795-808	2.7	209
89	On the stabilization of ferroelectric negative capacitance in nanoscale devices. *Nanoscale*, **2018**, 10, 10891-10899	7.7	73
88	Effect of Annealing Ferroelectric HfO2 Thin Films: In Situ, High Temperature X-Ray Diffraction. *Advanced Electronic Materials*, **2018**, 4, 1800091	6.4	48
87	On the relationship between field cycling and imprint in ferroelectric Hf0.5Zr0.5O2. *Journal of Applied Physics*, **2018**, 123, 204101	2.5	55
86	Nanoscopic studies of domain structure dynamics in ferroelectric La:HfO2 capacitors. *Applied Physics Letters*, **2018**, 112, 222901	3.4	56
85	Ferroelectric negative capacitance domain dynamics. *Journal of Applied Physics*, **2018**, 123, 184101	2.5	50
84	Switching Kinetics in Nanoscale Hafnium Oxide Based Ferroelectric Field-Effect Transistors. *ACS Applied Materials & Interfaces*, **2017**, 9, 3792-3798	9.5	179
83	Domain Pinning: Comparison of Hafnia and PZT Based Ferroelectrics. *Advanced Electronic Materials*, **2017**, 3, 1600505	6.4	76
82	A comprehensive study on the structural evolution of HfO2 thin films doped with various dopants. *Journal of Materials Chemistry C*, **2017**, 5, 4677-4690	7.1	174
81	Optimizing process conditions for improved Hf1 xZrxO2 ferroelectric capacitor performance. *Microelectronic Engineering*, **2017**, 178, 48-51	2.5	71
80	Ferroelectric and piezoelectric properties of Hf1-xZrxO2 and pure ZrO2 films. *Applied Physics Letters*, **2017**, 110, 182905	3.4	102
79	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	1.6	5
78	Effect of acceptor doping on phase transitions of HfO2 thin films for energy-related applications. *Nano Energy*, **2017**, 36, 381-389	17.1	50
77	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	7.7	162
76	Ferroelectric properties of lightly doped La:HfO2 thin films grown by plasma-assisted atomic layer deposition. *Applied Physics Letters*, **2017**, 111, 132903	3.4	48
75	Silicon-doped hafnium oxide anti-ferroelectric thin films for energy storage. *Journal of Applied Physics*, **2017**, 122, 144105	2.5	64
74	Si Doped Hafnium Oxide A Fragile Ferroelectric System. *Advanced Electronic Materials*, **2017**, 3, 1700131	6.4	105
73	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	1.8	20

72	Insights into antiferroelectrics from first-order reversal curves. *Applied Physics Letters*, **2017**, 111, 182903	3.4	20
71	Modeling and design considerations for negative capacitance field-effect transistors **2017**,		15
70	Anti-ferroelectric-like ZrO2 non-volatile memory: Inducing non-volatility within state-of-the-art DRAM **2017**,		2
69	Anti-ferroelectric ZrO2, an enabler for low power non-volatile 1T-1C and 1T random access memories **2017**,		9
68	Physical and circuit modeling of HfO2 based ferroelectric memories and devices **2017**,		1
67	Structural Changes Underlying Field-Cycling Phenomena in Ferroelectric HfO2 Thin Films. *Advanced Electronic Materials*, **2016**, 2, 1600173	6.4	215
66	Atomic layer deposited TiOx/AlOx nanolaminates as moisture barriers for organic devices. *Organic Electronics*, **2016**, 38, 84-88	3.5	7
65	Root cause of degradation in novel HfO2-based ferroelectric memories **2016**,		10
64	Direct Observation of Negative Capacitance in Polycrystalline Ferroelectric HfO2. *Advanced Functional Materials*, **2016**, 26, 8643-8649	15.6	168
63	Charge-Trapping Phenomena in HfO2-Based FeFET-Type Nonvolatile Memories. *IEEE Transactions on Electron Devices*, **2016**, 63, 3501-3507	2.9	152
62	Impact of field cycling on HfO2 based non-volatile memory devices **2016**,		5
61	Comparison of hafnia and PZT based ferroelectrics for future non-volatile FRAM applications **2016**,		15
60	Effect of Zr Content on the Wake-Up Effect in Hf1-xZrxO2 Films. *ACS Applied Materials & Interfaces*, **2016**, 8, 15466-75	9.5	132
59	Conduction barrier offset engineering for DRAM capacitor scaling. *Solid-State Electronics*, **2016**, 115, 133-139	1.7	31
58	Physical Mechanisms behind the Field-Cycling Behavior of HfO2-Based Ferroelectric Capacitors. *Advanced Functional Materials*, **2016**, 26, 4601-4612	15.6	397
57	Impact of charge trapping on the ferroelectric switching behavior of doped HfO2. *Physica Status Solidi (A) Applications and Materials Science*, **2016**, 213, 270-273	1.6	21
56	Low leakage ZrO2 based capacitors for sub 20 nm dynamic random access memory technology nodes. *Journal of Applied Physics*, **2016**, 119, 064101	2.5	19
55	How to make DRAM non-volatile? Anti-ferroelectrics: A new paradigm for universal memories **2016**,		28

54	Nonvolatile Field-Effect Transistors Using Ferroelectric Doped HfO2 Films. *Topics in Applied Physics*, **2016**, 57-72	0.5	4
53	Nonvolatile Random Access Memory and Energy Storage Based on Antiferroelectric Like Hysteresis in ZrO2. *Advanced Functional Materials*, **2016**, 26, 7486-7494	15.6	126
52	Materials for DRAM Memory Cell Applications. *Materials and Energy*, **2016**, 369-401		2
51	Ultra-thin ZrO2/SrO/ZrO2 insulating stacks for future dynamic random access memory capacitor applications. *Journal of Applied Physics*, **2015**, 117, 224102	2.5	14
50	Dynamic leakage current compensation revisited. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2015**, 62, 596-9	3.2	7
49	Ferroelectricity and antiferroelectricity of doped thin HfO2-based films. *Advanced Materials*, **2015**, 27, 1811-31	24	554
48	Complex Internal Bias Fields in Ferroelectric Hafnium Oxide. *ACS Applied Materials & Interfaces*, **2015**, 7, 20224-33	9.5	151
47	On the structural origins of ferroelectricity in HfO2 thin films. *Applied Physics Letters*, **2015**, 106, 162905	3.4	310
46	Breakdown and Protection of ALD Moisture Barrier Thin Films. *ACS Applied Materials & Interfaces*, **2015**, 7, 22121-7	9.5	42
45	Low Temperature Compatible Hafnium Oxide Based Ferroelectrics. *Ferroelectrics*, **2015**, 480, 16-23	0.6	20
44	Stabilizing the ferroelectric phase in doped hafnium oxide. *Journal of Applied Physics*, **2015**, 118, 072006	2.5	294
43	Electric field and temperature scaling of polarization reversal in silicon doped hafnium oxide ferroelectric thin films. *Acta Materialia*, **2015**, 99, 240-246	8.4	59
42	Ferroelectric phase transitions in nanoscale HfO 2 films enable giant pyroelectric energy conversion and highly efficient supercapacitors. *Nano Energy*, **2015**, 18, 154-164	17.1	133
41	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, 01A119	2.9	12
40	The Rayleigh law in silicon doped hafnium oxide ferroelectric thin films. *Physica Status Solidi - Rapid Research Letters*, **2015**, 9, 589-593	2.5	6
39	Schottky barrier height engineering for next generation DRAM capacitors **2015**,		1
38	Thickness dependent barrier performance of permeation barriers made from atomic layer deposited alumina for organic devices. *Organic Electronics*, **2015**, 17, 138-143	3.5	54
37	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, 01A117	2.9	13

36	Electric field cycling behavior of ferroelectric hafnium oxide. *ACS Applied Materials & Interfaces* , **2014**, 6, 19744-51	9.5	128
35	Origin of the endurance degradation in the novel HfO2-based 1T ferroelectric non-volatile memories **2014**,		24
34	Identification of the ferroelectric switching process and dopant-dependent switching properties in orthorhombic HfO2: A first principles insight. *Applied Physics Letters*, **2014**, 104, 092906	3.4	142
33	Impact of different dopants on the switching properties of ferroelectric hafniumoxide. *Japanese Journal of Applied Physics*, **2014**, 53, 08LE02	1.4	240
32	OLED compatible water-based nanolaminate encapsulation systems using ozone based starting layer. *Organic Electronics*, **2014**, 15, 2587-2592	3.5	19
31	Conduction Mechanisms and Breakdown Characteristics of $hbox{Al}_{2}hbox{O}_{3}$-Doped $hbox{ZrO}_{2}$ High-k Dielectrics for Three-Dimensional Stacked MetalInsulatorMetal Capacitors. *IEEE Transactions on Device and Materials Reliability*, **2014**, 14, 154-160	1.6	23
30	About the deformation of ferroelectric hystereses. *Applied Physics Reviews*, **2014**, 1, 041103	17.3	114
29	Impact of Scaling on the Performance of HfO2-Based Ferroelectric Field Effect Transistors. *IEEE Transactions on Electron Devices*, **2014**, 61, 3699-3706	2.9	96
28	Strontium doped hafnium oxide thin films: Wide process window for ferroelectric memories **2013**,		61
27	Reliability Characteristics of Ferroelectric $ hbox{Si:HfO}_{2}$ Thin Films for Memory Applications. *IEEE Transactions on Device and Materials Reliability*, **2013**, 13, 93-97	1.6	133
26	Influence of Frequency Dependent Time to Breakdown on High-K/Metal Gate Reliability. *IEEE Transactions on Electron Devices*, **2013**, 60, 2368-2371	2.9	17
25	(Invited) Hafnium Oxide Based CMOS Compatible Ferroelectric Materials. *ECS Transactions*, **2013**, 50, 15-20	1	3
24	Hafnium Oxide Based CMOS Compatible Ferroelectric Materials. *ECS Journal of Solid State Science and Technology*, **2013**, 2, N69-N72	2	80
23	Reliability of $hbox{SrRuO}_{3}hbox{/SrTiO}_{3}hbox{/SrRuO}_{3}$ Stacks for DRAM Applications. *IEEE Electron Device Letters*, **2012**, 33, 1699-1701	4.4	18
22	Downscaling ferroelectric field effect transistors by using ferroelectric Si-doped HfO2 **2012**,		3
21	Ten-Nanometer Ferroelectric $hbox{Si:HfO}_{2}$ Films for Next-Generation FRAM Capacitors. *IEEE Electron Device Letters*, **2012**, 33, 1300-1302	4.4	105
20	Ferroelectricity in Gd-Doped HfO2Thin Films. *ECS Journal of Solid State Science and Technology*, **2012**, 1, N123-N126	2	177
19	Non-volatile data storage in HfO2-based ferroelectric FETs **2012**,		1

18	Incipient Ferroelectricity in Al-Doped HfO2 Thin Films. *Advanced Functional Materials*, **2012**, 22, 2412-2417	15.6	477
17	Reliability of Al2O3-doped ZrO2 high-k dielectrics in three-dimensional stacked metal-insulator-metal capacitors. *Journal of Applied Physics*, **2010**, 108, 124104	2.5	30
16	Time dependent dielectric breakdown of amorphous ZrAlxOy high-k dielectric used in dynamic random access memory metal-insulator-metal capacitor. *Journal of Applied Physics*, **2009**, 106, 044104	2.5	13
15	New Materials in Memory Development Sub 50 nm: Trends in Flash and DRAM. *Advanced Engineering Materials*, **2009**, 11, 241-248	3.5	29
14	First Insight Into the Lifetime Acceleration Model of High-k $hbox{ZrO}_{2}/hbox{SiO}_{2}/hbox{ZrO}_{2}$ Stacks for Advanced DRAM Technology Nodes. *IEEE Electron Device Letters*, **2009**, 30, 340-342	4.4	11
13	Detailed Correlation of Electrical and Breakdown Characteristics to the Structural Properties of ALD Grown HfO2- and ZrO2-based Capacitor Dielectrics. *ECS Transactions*, **2009**, 25, 357-366	1	9
12	Tunneling atomic-force microscopy as a highly sensitive mapping tool for the characterization of film morphology in thin high-k dielectrics. *Applied Physics Letters*, **2008**, 92, 252910	3.4	68
11	Reliability aspects of Hf-based capacitors: Breakdown and trapping effects. *Microelectronics Reliability*, **2007**, 47, 497-500	1.2	11
10	High-Quality$hboxAl_2hboxO_3/hboxPr_2hboxO_3/hboxAl_2hboxO_3$MIM Capacitors for RF Applications. *IEEE Transactions on Electron Devices*, **2006**, 53, 1937-1939	2.9	8
9	Recent Developments in ALD Technology for 50 nm Trench DRAM Applications. *ECS Transactions*, **2006**, 1, 125-132	1	10
8	Influence of Al/sub 2/O/sub 3/ dielectrics on the trap-depth profiles in MOS devices investigated by the charge-pumping method. *IEEE Transactions on Electron Devices*, **2004**, 51, 2252-2255	2.9	35
7	Physical properties of ALD-Al2O3 in a DRAM-capacitor equivalent structure comparing interfaces and oxygen precursors. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **2004**, 107, 251-254	3.1	18
6	Crystallization behavior of thin ALD-Al2O3 films. *Thin Solid Films*, **2003**, 425, 216-220	2.2	216
5	Physical characterization of thin ALD�Al2O3 films. *Applied Surface Science*, **2003**, 211, 352-359	6.7	57
4	Raman Spectroscopy as a Key Method to Distinguish the Ferroelectric Orthorhombic Phase in Thin ZrO 2 -Based Films. *Physica Status Solidi - Rapid Research Letters*,2100589	2.5	3
3	Harnessing Phase Transitions in Antiferroelectric ZrO2 Using the Size Effect. *Advanced Electronic Materials*,2100556	6.4	3
2	The fundamentals and applications of ferroelectric HfO2. *Nature Reviews Materials*,	73.3	22
1	Temperature-Dependent Phase Transitions in Hf x Zr 1-x O 2 Mixed Oxides: Indications of a Proper Ferroelectric Material. *Advanced Electronic Materials*,2200265	6.4	2