

Cheol Seong Hwang

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ext. papers

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avg, IF

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#	Paper	IF	Citations
611	Atomic structure of conducting nanofilaments in TiO ₂ resistive switching memory. <i>Nature Nanotechnology</i> , 2010 , 5, 148-53	28.7	1672
610	Multifunctional wearable devices for diagnosis and therapy of movement disorders. <i>Nature Nanotechnology</i> , 2014 , 9, 397-404	28.7	1037
609	Resistive switching mechanism of TiO ₂ thin films grown by atomic-layer deposition. <i>Journal of Applied Physics</i> , 2005 , 98, 033715	2.5	938
608	Emerging memories: resistive switching mechanisms and current status. <i>Reports on Progress in Physics</i> , 2012 , 75, 076502	14.4	733
607	Ferroelectricity and antiferroelectricity of doped thin HfO ₂ -based films. <i>Advanced Materials</i> , 2015 , 27, 1811-31	24	554
606	Nanofilamentary resistive switching in binary oxide system; a review on the present status and outlook. <i>Nanotechnology</i> , 2011 , 22, 254002	3.4	463
605	Efficient CH ₃ NH ₃ PbI ₃ Perovskite Solar Cells Employing Nanostructured p-Type NiO Electrode Formed by a Pulsed Laser Deposition. <i>Advanced Materials</i> , 2015 , 27, 4013-9	24	414
604	Evolution of phases and ferroelectric properties of thin Hf _{0.5} Zr _{0.5} O ₂ films according to the thickness and annealing temperature. <i>Applied Physics Letters</i> , 2013 , 102, 242905	3.4	352
603	A resistive memory in semiconducting BiFeO ₃ thin-film capacitors. <i>Advanced Materials</i> , 2011 , 23, 1277-81	24	348
602	Anode-interface localized filamentary mechanism in resistive switching of TiO ₂ thin films. <i>Applied Physics Letters</i> , 2007 , 91, 012907	3.4	348
601	Resistive switching materials for information processing. <i>Nature Reviews Materials</i> , 2020 , 5, 173-195	73.3	318
600	Identification of a determining parameter for resistive switching of TiO ₂ thin films. <i>Applied Physics Letters</i> , 2005 , 86, 262907	3.4	296
599	High dielectric constant TiO ₂ thin films on a Ru electrode grown at 250 °C by atomic-layer deposition. <i>Applied Physics Letters</i> , 2004 , 85, 4112-4114	3.4	280
598	Deposition of extremely thin (Ba,Sr)TiO ₃ thin films for ultra-large-scale integrated dynamic random access memory application. <i>Applied Physics Letters</i> , 1995 , 67, 2819-2821	3.4	261
597	A Review of Three-Dimensional Resistive Switching Cross-Bar Array Memories from the Integration and Materials Property Points of View. <i>Advanced Functional Materials</i> , 2014 , 24, 5316-5339	15.6	259
596	Al-Doped TiO ₂ Films with Ultralow Leakage Currents for Next Generation DRAM Capacitors. <i>Advanced Materials</i> , 2008 , 20, 1429-1435	24	248
595	Effect of high-pressure oxygen annealing on negative bias illumination stress-induced instability of InGaZnO thin film transistors. <i>Applied Physics Letters</i> , 2011 , 98, 103509	3.4	231

594	Thin HfxZr1-xO2 Films: A New Lead-Free System for Electrostatic Supercapacitors with Large Energy Storage Density and Robust Thermal Stability. <i>Advanced Energy Materials</i> , 2014 , 4, 1400610	21.8	221
593	Review and perspective on ferroelectric HfO2-based thin films for memory applications. <i>MRS Communications</i> , 2018 , 8, 795-808	2.7	209
592	Localized switching mechanism in resistive switching of atomic-layer-deposited TiO2 thin films. <i>Applied Physics Letters</i> , 2007 , 90, 242906	3.4	198
591	First-principles study on doping and phase stability of HfO2. <i>Physical Review B</i> , 2008 , 78,	3.3	193
590	The effects of crystallographic orientation and strain of thin Hf0.5Zr0.5O2 film on its ferroelectricity. <i>Applied Physics Letters</i> , 2014 , 104, 072901	3.4	191
589	First-principles study of point defects in rutile TiO2. <i>Physical Review B</i> , 2006 , 73,	3.3	189
588	Memristors for Energy-Efficient New Computing Paradigms. <i>Advanced Electronic Materials</i> , 2016 , 2, 1600020	10.9	188
587	An artificial nociceptor based on a diffusive memristor. <i>Nature Communications</i> , 2018 , 9, 417	17.4	183
586	Origin of Subthreshold Swing Improvement in Amorphous Indium Gallium Zinc Oxide Transistors. <i>Electrochemical and Solid-State Letters</i> , 2008 , 11, H157		177
585	Surface and grain boundary energy as the key enabler of ferroelectricity in nanoscale hafnia-zirconia: a comparison of model and experiment. <i>Nanoscale</i> , 2017 , 9, 9973-9986	7.7	162
584	Capacitors with an Equivalent Oxide Thickness of . <i>Advanced Functional Materials</i> , 2010 , 20, 2989-3003	15.6	160
583	Bioresorbable Electronic Stent Integrated with Therapeutic Nanoparticles for Endovascular Diseases. <i>ACS Nano</i> , 2015 , 9, 5937-46	16.7	158
582	Highly Uniform, Electroforming-Free, and Self-Rectifying Resistive Memory in the Pt/Ta2O5/HfO2-x/TiN Structure. <i>Advanced Functional Materials</i> , 2014 , 24, 5086-5095	15.6	157
581	A comparative study on the electrical conduction mechanisms of (Ba0.5Sr0.5)TiO3 thin films on Pt and IrO2 electrodes. <i>Journal of Applied Physics</i> , 1998 , 83, 3703-3713	2.5	155
580	A study on the wake-up effect of ferroelectric Hf0.5Zr0.5O2 films by pulse-switching measurement. <i>Nanoscale</i> , 2016 , 8, 1383-9	7.7	153
579	Highly improved uniformity in the resistive switching parameters of TiO2 thin films by inserting Ru nanodots. <i>Advanced Materials</i> , 2013 , 25, 1987-92	24	152
578	Toward a multifunctional monolithic device based on pyroelectricity and the electrocaloric effect of thin antiferroelectric Hf x Zr 1-x O 2 films. <i>Nano Energy</i> , 2015 , 12, 131-140	17.1	144
577	A detailed understanding of the electronic bipolar resistance switching behavior in Pt/TiO2/Pt structure. <i>Nanotechnology</i> , 2011 , 22, 254010	3.4	140

576	The conical shape filament growth model in unipolar resistance switching of TiO ₂ thin film. <i>Applied Physics Letters</i> , 2009 , 94, 122109	3.4	137
575	32 B ₂ Crossbar Array Resistive Memory Composed of a Stacked Schottky Diode and Unipolar Resistive Memory. <i>Advanced Functional Materials</i> , 2013 , 23, 1440-1449	15.6	136
574	Improved Ferroelectric Switching Endurance of La-Doped HfZrO Thin Films. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 2701-2708	9.5	134
573	Pt/Ta ₂ O ₅ /HfO _{2-x} /Ti resistive switching memory competing with multilevel NAND flash. <i>Advanced Materials</i> , 2015 , 27, 3811-6	24	134
572	Grain size engineering for ferroelectric Hf _{0.5} Zr _{0.5} O ₂ films by an insertion of Al ₂ O ₃ interlayer. <i>Applied Physics Letters</i> , 2014 , 105, 192903	3.4	134
571	Effect of Zr Content on the Wake-Up Effect in Hf _{1-x} Zr _x O ₂ Films. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 15466-75	9.5	132
570	Low-Power, Self-Rectifying, and Forming-Free Memristor with an Asymmetric Programming Voltage for a High-Density Crossbar Application. <i>Nano Letters</i> , 2016 , 16, 6724-6732	11.5	131
569	Temporary formation of highly conducting domain walls for non-destructive read-out of ferroelectric domain-wall resistance switching memories. <i>Nature Materials</i> , 2018 , 17, 49-56	27	131
568	Thickness-dependent dielectric constants of (Ba,Sr)TiO ₃ thin films with Pt or conducting oxide electrodes. <i>Journal of Applied Physics</i> , 2002 , 92, 432-437	2.5	128
567	Depletion layer thickness and Schottky type carrier injection at the interface between Pt electrodes and (Ba, Sr)TiO ₃ thin films. <i>Journal of Applied Physics</i> , 1999 , 85, 287-295	2.5	127
566	Low Temperature (. <i>Journal of the Electrochemical Society</i> , 2006 , 153, F69	3.9	126
565	Comparison between ZnO films grown by atomic layer deposition using H ₂ O or O ₃ as oxidant. <i>Thin Solid Films</i> , 2005 , 478, 103-108	2.2	125
564	Nonvolatile Memory Materials for Neuromorphic Intelligent Machines. <i>Advanced Materials</i> , 2018 , 30, e1704729	24	121
563	Effect of forming gas annealing on the ferroelectric properties of Hf _{0.5} Zr _{0.5} O ₂ thin films with and without Pt electrodes. <i>Applied Physics Letters</i> , 2013 , 102, 112914	3.4	117
562	Ferroelectricity in undoped-HfO ₂ thin films induced by deposition temperature control during atomic layer deposition. <i>Journal of Materials Chemistry C</i> , 2016 , 4, 6864-6872	7.1	116
561	Dielectric and electrical properties of sputter grown (Ba,Sr)TiO ₃ thin films. <i>Journal of Applied Physics</i> , 1999 , 86, 506-513	2.5	116
560	A Pt/TiO ₂ /Ti Schottky-type selection diode for alleviating the sneak current in resistance switching memory arrays. <i>Nanotechnology</i> , 2010 , 21, 195201	3.4	113
559	Prospective of Semiconductor Memory Devices: from Memory System to Materials. <i>Advanced Electronic Materials</i> , 2015 , 1, 1400056	6.4	108

558	(Ba,Sr)TiO ₃ thin films for ultra large scale dynamic random access memory.. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 1998 , 56, 178-190	3.1	108
557	Novel high- ϵ dielectrics for next-generation electronic devices screened by automated ab initio calculations. <i>NPG Asia Materials</i> , 2015 , 7, e190-e190	10.3	106
556	Electrically configurable electroforming and bipolar resistive switching in Pt/TiO ₂ /Pt structures. <i>Nanotechnology</i> , 2010 , 21, 305203	3.4	104
555	Influences of interfacial intrinsic low-dielectric layers on the dielectric properties of sputtered (Ba,Sr)TiO ₃ thin films. <i>Applied Physics Letters</i> , 2000 , 77, 124-126	3.4	104
554	Understanding the formation of the metastable ferroelectric phase in hafnia-zirconia solid solution thin films. <i>Nanoscale</i> , 2018 , 10, 716-725	7.7	103
553	Ferroelectric properties and switching endurance of Hf _{0.5} Zr _{0.5} O ₂ films on TiN bottom and TiN or RuO ₂ top electrodes. <i>Physica Status Solidi - Rapid Research Letters</i> , 2014 , 8, 532-535	2.5	102
552	Metal oxide memories based on thermochemical and valence change mechanisms. <i>MRS Bulletin</i> , 2012 , 37, 131-137	3.2	102
551	Enhanced electrical properties of SrTiO ₃ thin films grown by atomic layer deposition at high temperature for dynamic random access memory applications. <i>Applied Physics Letters</i> , 2008 , 92, 222903	3.4	102
550	Resistive Switching in Pt/Al ₂ O ₃ /TiO ₂ /Ru Stacked Structures. <i>Electrochemical and Solid-State Letters</i> , 2006 , 9, G343		102
549	Chemical interaction between atomic-layer-deposited HfO ₂ thin films and the Si substrate. <i>Applied Physics Letters</i> , 2002 , 81, 334-336	3.4	102
548	Chemical structure of the interface in ultrathin HfO ₂ /Si films. <i>Applied Physics Letters</i> , 2004 , 84, 1305-1307	3.4	101
547	Study on the degradation mechanism of the ferroelectric properties of thin Hf _{0.5} Zr _{0.5} O ₂ films on TiN and Ir electrodes. <i>Applied Physics Letters</i> , 2014 , 105, 072902	3.4	99
546	Comparison of HfO ₂ films grown by atomic layer deposition using HfCl ₄ and H ₂ O or O ₃ as the oxidant. <i>Journal of Applied Physics</i> , 2003 , 94, 3641-3647	2.5	98
545	Atomic Layer Deposition of SrTiO ₃ Thin Films with Highly Enhanced Growth Rate for Ultrahigh Density Capacitors. <i>Chemistry of Materials</i> , 2011 , 23, 2227-2236	9.6	96
544	Resistive switching memory: observations with scanning probe microscopy. <i>Nanoscale</i> , 2011 , 3, 490-502	7.7	96
543	Self-Limited Switching in Ta ₂ O ₅ /TaO _x Memristors Exhibiting Uniform Multilevel Changes in Resistance. <i>Advanced Functional Materials</i> , 2015 , 25, 1527-1534	15.6	93
542	Study on the resistive switching time of TiO ₂ thin films. <i>Applied Physics Letters</i> , 2006 , 89, 012906	3.4	93
541	Study on the size effect in Hf _{0.5} Zr _{0.5} O ₂ films thinner than 8 nm before and after wake-up field cycling. <i>Applied Physics Letters</i> , 2015 , 107, 192907	3.4	92

540	Giant Negative Electrocaloric Effects of Hf Zr O Thin Films. <i>Advanced Materials</i> , 2016 , 28, 7956-7961	24	91
539	Interfacial reaction between chemically vapor-deposited HfO ₂ thin films and a HF-cleaned Si substrate during film growth and postannealing. <i>Applied Physics Letters</i> , 2002 , 80, 2368-2370	3.4	85
538	Atomic Layer Deposition of Ru Thin Films Using 2,4-(Dimethylpentadienyl)(ethylcyclopentadienyl)Ru by a Liquid Injection System. <i>Journal of the Electrochemical Society</i> , 2007 , 154, D95	3.9	83
537	Densification and Mechanical Properties of Titanium Diboride with Silicon Nitride as a Sintering Aid. <i>Journal of the American Ceramic Society</i> , 2004 , 82, 3037-3042	3.8	83
536	Thermal annealing effects on the structural and electrical properties of HfO ₂ /Al ₂ O ₃ gate dielectric stacks grown by atomic layer deposition on Si substrates. <i>Journal of Applied Physics</i> , 2003 , 94, 2563-2571 ^{2.5}		81
535	Deposition and Electrical Characterization of Very Thin SrTiO ₃ Films for Ultra Large Scale Integrated Dynamic Random Access Memory Application. <i>Japanese Journal of Applied Physics</i> , 1995 , 34, 5178-5183 ^{1.4}		77
534	Suppression in the negative bias illumination instability of Zn-Sn-O transistor using oxygen plasma treatment. <i>Applied Physics Letters</i> , 2011 , 99, 102103	3.4	76
533	Comparison between atomic-layer-deposited HfO ₂ films using O ₃ or H ₂ O oxidant and Hf[N(CH ₃) ₂] ₄ precursor. <i>Applied Physics Letters</i> , 2004 , 85, 5953-5955	3.4	72
532	Tunneling-assisted Poole-Frenkel conduction mechanism in HfO ₂ thin films. <i>Journal of Applied Physics</i> , 2005 , 98, 113701	2.5	72
531	(In,Sn)O ₃ /TiO ₂ /Pt Schottky-type diode switch for the TiO ₂ resistive switching memory array. <i>Applied Physics Letters</i> , 2008 , 92, 162904	3.4	71
530	Thermodynamic and Kinetic Origins of Ferroelectricity in Fluorite Structure Oxides. <i>Advanced Electronic Materials</i> , 2019 , 5, 1800522	6.4	71
529	Nociceptive Memristor. <i>Advanced Materials</i> , 2018 , 30, 1704320	24	69
528	Collective Motion of Conducting Filaments in Pt/n-Type TiO ₂ /p-Type NiO/Pt Stacked Resistance Switching Memory. <i>Advanced Functional Materials</i> , 2011 , 21, 1587-1592	15.6	69
527	Improvement of the photo-bias stability of the ZnSnO field effect transistors by an ozone treatment. <i>Journal of Materials Chemistry</i> , 2012 , 22, 10994		67
526	Study on the electrical conduction mechanism of bipolar resistive switching TiO ₂ thin films using impedance spectroscopy. <i>Applied Physics Letters</i> , 2010 , 96, 152909	3.4	67
525	Investigation on the Growth Initiation of Ru Thin Films by Atomic Layer Deposition. <i>Chemistry of Materials</i> , 2010 , 22, 2850-2856	9.6	65
524	Chemically Conformal ALD of SrTiO ₃ Thin Films Using Conventional Metallorganic Precursors. <i>Journal of the Electrochemical Society</i> , 2005 , 152, C229	3.9	65
523	Stabilization of Tetragonal HfO ₂ under Low Active Oxygen Source Environment in Atomic Layer Deposition. <i>Chemistry of Materials</i> , 2012 , 24, 3534-3543	9.6	64

522	Real-time identification of the evolution of conducting nano-filaments in TiO ₂ thin film ReRAM. <i>Scientific Reports</i> , 2013 , 3, 3443	4.9	64
521	Mitigating wakeup effect and improving endurance of ferroelectric HfO ₂ -ZrO ₂ thin films by careful La-doping. <i>Journal of Applied Physics</i> , 2019 , 125, 034101	2.5	64
520	Electronic resistance switching in the Al/TiO(x)/Al structure for forming-free and area-scalable memory. <i>Nanoscale</i> , 2015 , 7, 11063-74	7.7	63
519	Local structure and conduction mechanism in amorphous In ₂ O ₃ films. <i>Applied Physics Letters</i> , 2009 , 94, 112112	3.4	63
518	Atomic-layer-deposited Al ₂ O ₃ thin films with thin SiO ₂ layers grown by in situ O ₃ oxidation. <i>Journal of Applied Physics</i> , 2004 , 96, 2323-2329	2.5	63
517	Fabrication and Electrical Characterization of Pt/(Ba,Sr)TiO ₃ /Pt Capacitors for Ultralarge-Scale Integrated Dynamic Random Access Memory Applications. <i>Japanese Journal of Applied Physics</i> , 1996 , 35, 1548-1552	1.4	63
516	Study on the internal field and conduction mechanism of atomic layer deposited ferroelectric Hf _{0.5} Zr _{0.5} O ₂ thin films. <i>Journal of Materials Chemistry C</i> , 2015 , 3, 6291-6300	7.1	62
515	Memristive tri-stable resistive switching at ruptured conducting filaments of a Pt/TiO ₂ /Pt cell. <i>Nanotechnology</i> , 2012 , 23, 185202	3.4	62
514	Growth Behavior of Al-Doped TiO ₂ Thin Films by Atomic Layer Deposition. <i>Chemistry of Materials</i> , 2008 , 20, 3723-3727	9.6	62
513	Transformation of the Crystalline Structure of an ALD TiO ₂ Film on a Ru Electrode by O ₃ Pretreatment. <i>Electrochemical and Solid-State Letters</i> , 2006 , 9, F5		62
512	Influence of carrier injection on resistive switching of TiO ₂ thin films with Pt electrodes. <i>Applied Physics Letters</i> , 2006 , 89, 162912	3.4	62
511	Atomic Layer Deposition of SrTiO ₃ Films with Cyclopentadienyl-Based Precursors for Metal-Insulator-Metal Capacitors. <i>Chemistry of Materials</i> , 2013 , 25, 953-961	9.6	61
510	Improved endurance of resistive switching TiO ₂ thin film by hourglass shaped Magn ₂ Si filaments. <i>Applied Physics Letters</i> , 2011 , 98, 262901	3.4	60
509	Growth Characteristics of Atomic Layer Deposited TiO ₂ Thin Films on Ru and Si Electrodes for Memory Capacitor Applications. <i>Journal of the Electrochemical Society</i> , 2005 , 152, C552	3.9	60
508	Scale-up and optimization of HfO ₂ -ZrO ₂ solid solution thin films for the electrostatic supercapacitors. <i>Nano Energy</i> , 2017 , 39, 390-399	17.1	59
507	Leakage current of sol-gel derived Pb(Zr, Ti)O ₃ thin films having Pt electrodes. <i>Applied Physics Letters</i> , 1999 , 75, 3411-3413	3.4	59
506	Time-Dependent Negative Capacitance Effects in Al ₂ O ₃ /BaTiO ₃ Bilayers. <i>Nano Letters</i> , 2016 , 16, 4375-811.5	11.5	59
505	Atomic Layer Deposition of ZrO ₂ Thin Films with High Dielectric Constant on TiN Substrates. <i>Electrochemical and Solid-State Letters</i> , 2008 , 11, G9		57

504	Titanium dioxide thin films for next-generation memory devices. <i>Journal of Materials Research</i> , 2013 , 28, 313-325	2.5	56
503	The Inlaid Al ₂ O ₃ Tunnel Switch for Ultrathin Ferroelectric Films. <i>Advanced Materials</i> , 2009 , 21, 2870-2875	4	56
502	Modeling of Negative Capacitance in Ferroelectric Thin Films. <i>Advanced Materials</i> , 2019 , 31, e1805266	24	55
501	Combined Atomic Layer and Chemical Vapor Deposition, and Selective Growth of Ge ₂ Sb ₂ Te ₅ Films on TiN/W Contact Plug. <i>Chemistry of Materials</i> , 2007 , 19, 4387-4389	9.6	55
500	Multicolor Changeable Optical Coating by Adopting Multiple Layers of Ultrathin Phase Change Material Film. <i>ACS Photonics</i> , 2016 , 3, 1265-1270	6.3	54
499	Reasons for obtaining an optical dielectric constant from the Poole-Frenkel conduction behavior of atomic-layer-deposited HfO ₂ films. <i>Applied Physics Letters</i> , 2005 , 86, 072903	3.4	54
498	Role of ZrO ₂ incorporation in the suppression of negative bias illumination-induced instability in ZnSnO thin film transistors. <i>Applied Physics Letters</i> , 2011 , 98, 122110	3.4	53
497	Cyclic PECVD of Ge ₂ Sb ₂ Te ₅ Films Using Metallorganic Sources. <i>Journal of the Electrochemical Society</i> , 2007 , 154, H318	3.9	53
496	Correlation of the change in transfer characteristics with the interfacial trap densities of amorphous InGaZnO thin film transistors under light illumination. <i>Applied Physics Letters</i> , 2011 , 98, 232102	3.4	52
495	Reduction of Electrical Defects in Atomic Layer Deposited HfO ₂ Films by Al Doping. <i>Chemistry of Materials</i> , 2010 , 22, 4175-4184	9.6	52
494	High-k properties of atomic-layer-deposited HfO ₂ films using a nitrogen-containing Hf[N(CH ₃) ₂] ₄ precursor and H ₂ O oxidant. <i>Applied Physics Letters</i> , 2003 , 83, 5503-5505	3.4	51
493	Review of defect chemistry in fluorite-structure ferroelectrics for future electronic devices. <i>Journal of Materials Chemistry C</i> , 2020 , 8, 10526-10550	7.1	50
492	Influence of the oxygen concentration of atomic-layer-deposited HfO ₂ films on the dielectric property and interface trap density. <i>Applied Physics Letters</i> , 2005 , 86, 112907	3.4	50
491	Sub-Picosecond Processes of Ferroelectric Domain Switching from Field and Temperature Experiments. <i>Advanced Functional Materials</i> , 2012 , 22, 192-199	15.6	49
490	Synthesis of SnS Thin Films by Atomic Layer Deposition at Low Temperatures. <i>Chemistry of Materials</i> , 2017 , 29, 8100-8110	9.6	49
489	Atomic Layer Deposition and Electrical Properties of SrTiO ₃ Thin Films Grown Using Sr(C ₁₁ H ₁₉ O ₂) ₂ , Ti(Oi-C ₃ H ₇) ₄ , and H ₂ O. <i>Journal of the Electrochemical Society</i> , 2007 , 154, G127	3.9	49
488	Thermodynamic Calculations and Metallorganic Chemical Vapor Deposition of Ruthenium Thin Films Using Bis(ethyl-cyclopentadienyl)Ru for Memory Applications. <i>Journal of the Electrochemical Society</i> , 2000 , 147, 1161	3.9	49
487	Ferroelectric properties of lightly doped La:HfO ₂ thin films grown by plasma-assisted atomic layer deposition. <i>Applied Physics Letters</i> , 2017 , 111, 132903	3.4	48

486	Epitaxial Brownmillerite Oxide Thin Films for Reliable Switching Memory. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 7902-11	9.5	48
485	Structure and electrical properties of Al-doped HfO ₂ and ZrO ₂ films grown via atomic layer deposition on Mo electrodes. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 22474-82	9.5	48
484	Chemical Vapor Deposition of Ru Thin Films with an Enhanced Morphology, Thermal Stability, and Electrical Properties Using a RuO ₄ Precursor. <i>Chemistry of Materials</i> , 2009 , 21, 207-209	9.6	48
483	Preparation and Electrical Properties of SrTiO ₃ Thin Films Deposited by Liquid Source Metal-Organic Chemical Vapor Deposition (MOCVD). <i>Japanese Journal of Applied Physics</i> , 1996 , 35, 4890-4895	1.4	48
482	Deposition and characterization of ZrO ₂ thin films on silicon substrate by MOCVD. <i>Journal of Materials Research</i> , 1993 , 8, 1361-1367	2.5	48
481	Preparation and characterization of ferroelectric HfZrO thin films grown by reactive sputtering. <i>Nanotechnology</i> , 2017 , 28, 305703	3.4	48
480	Thickness effect of ultra-thin Ta ₂ O ₅ resistance switching layer in 28 nm-diameter memory cell. <i>Scientific Reports</i> , 2015 , 5, 15965	4.9	47
479	Structural properties and electronic structure of HfO ₂ -ZrO ₂ composite films. <i>Physical Review B</i> , 2010 , 82,	3.3	47
478	Improvement in the leakage current characteristic of metal-insulator-metal capacitor by adopting RuO ₂ film as bottom electrode. <i>Applied Physics Letters</i> , 2011 , 99, 022901	3.4	47
477	Influence of Substrates on the Nucleation and Growth Behaviors of Ge ₂ Sb ₂ Te ₅ Films by Combined Plasma-Enhanced Atomic Layer and Chemical Vapor Deposition. <i>Chemistry of Materials</i> , 2009 , 21, 2386-2396	9.6	47
476	Atomic Layer Deposition of Al ₂ O ₃ Thin Films from a 1-Methoxy-2-methyl-2-propoxide Complex of Aluminum and Water. <i>Chemistry of Materials</i> , 2005 , 17, 626-631	9.6	47
475	Post-Annealing Effects on Fixed Charge and Slow/Fast Interface States of TiN/Al ₂ O ₃ /p-Si Metal/Oxide/Semiconductor Capacitor. <i>Japanese Journal of Applied Physics</i> , 2003 , 42, 1222-1226	1.4	47
474	Orientation effects in chemical solution derived Pb(Zr _{0.3} ,Ti _{0.7})O ₃ thin films on ferroelectric properties. <i>Thin Solid Films</i> , 2002 , 416, 264-270	2.2	47
473	Filamentary Resistive Switching Localized at Cathode Interface in NiO Thin Films. <i>Journal of the Electrochemical Society</i> , 2009 , 156, G213	3.9	46
472	ZnO nanoparticle growth on single-walled carbon nanotubes by atomic layer deposition and a consequent lifetime elongation of nanotube field emission. <i>Applied Physics Letters</i> , 2007 , 90, 263104	3.4	46
471	Effects of carbon residue in atomic layer deposited HfO ₂ films on their time-dependent dielectric breakdown reliability. <i>Applied Physics Letters</i> , 2007 , 90, 182907	3.4	46
470	Plasma-Enhanced Atomic Layer Deposition of TiO ₂ and Al-Doped TiO ₂ Films Using N ₂ O and O ₂ Reactants. <i>Journal of the Electrochemical Society</i> , 2009 , 156, G138	3.9	45
469	Impact of O ₃ feeding time on TiO ₂ films grown by atomic layer deposition for memory capacitor applications. <i>Journal of Applied Physics</i> , 2007 , 102, 024109	2.5	45

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