

Taehwan Moon

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Characterization of a 2D Electron Gas at the Interface of Atomic Layer Deposited Al ₂ O ₃ /ZnO Thin Films for a Field-Effect Transistor. <i>Advanced Electronic Materials</i> , 2021, 7, 2000876.	5.1	8
2	Threshold Voltage Modulation in a Transistor with a Two-Dimensional Electron Gas Channel at the Interface between Al ₂ O ₃ and Sub-5 nm ZnO Films. <i>ACS Applied Electronic Materials</i> , 2021, 3, 3247-3255.	4.3	7
3	Unveiling the Origin of Robust Ferroelectricity in Sub-2 nm Hafnium Zirconium Oxide Films. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 36499-36506.	8.0	24
4	Unexpectedly low barrier of ferroelectric switching in HfO ₂ via topological domain walls. <i>Materials Today</i> , 2021, 50, 8-15.	14.2	40
5	Origin of the Threshold Voltage Shift in a Transistor with a 2D Electron Gas Channel at the Al ₂ O ₃ /SrTiO ₃ Interface. <i>Advanced Electronic Materials</i> , 2020, 6, 1901286.	5.1	8
6	A Comparative Study on the Ferroelectric Performances in Atomic Layer Deposited Hf _{0.5} Zr _{0.5} O ₂ Thin Films Using Tetrakis(ethylmethylamino) and Tetrakis(dimethylamino) Precursors. <i>Nanoscale Research Letters</i> , 2020, 15, 72.	5.7	38
7	A comprehensive study on the mechanism of ferroelectric phase formation in hafnia-zirconia nanolaminates and superlattices. <i>Applied Physics Reviews</i> , 2019, 6, .	11.3	73
8	Transient Negative Capacitance Effect in Atomic Layer Deposited Al ₂ O ₃ /Hf _{0.3} Zr _{0.7} O ₂ Bilayer Thin Film. <i>Advanced Functional Materials</i> , 2019, 29, 1808228.	14.9	47
9	Nucleation-Limited Ferroelectric Orthorhombic Phase Formation in Hf _{0.5} Zr _{0.5} O ₂ Thin Films. <i>Advanced Electronic Materials</i> , 2019, 5, 1800436.	5.1	55
10	2D Electron Gas at the Interface of Atomic Layer Deposited Al ₂ O ₃ /TiO ₂ on SrTiO ₃ Single Crystal Substrate. <i>Advanced Electronic Materials</i> , 2019, 5, 1800527.	5.1	18
11	Composition, Microstructure, and Electrical Performance of Sputtered SnO Thin Films for p-Type Oxide Semiconductor. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 3810-3821.	8.0	16
12	Understanding the formation of the metastable ferroelectric phase in hafnia-zirconia solid solution thin films. <i>Nanoscale</i> , 2018, 10, 716-725.	5.6	159
13	Morphotropic Phase Boundary of Hf _{1-x} Zr _x O ₂ Thin Films for Dynamic Random Access Memories. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 42666-42673.	8.0	68
14	Dispersion in Ferroelectric Switching Performance of Polycrystalline Hf _{0.5} Zr _{0.5} O ₂ Thin Films. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 35374-35384.	8.0	55
15	Diode Property and Positive Temperature Coefficient of Resistance of Pt/Al ₂ O ₃ /Nb:SrTiO ₃ . <i>Advanced Electronic Materials</i> , 2018, 4, 1800388.	5.1	7
16	Research Update: Diode performance of the Pt/Al ₂ O ₃ /two-dimensional electron gas/SrTiO ₃ structure and its time-dependent resistance evolution. <i>APL Materials</i> , 2017, 5, .	5.1	8
17	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.	16.0	87
18	Voltage Drop in a Ferroelectric Single Layer Capacitor by Retarded Domain Nucleation. <i>Nano Letters</i> , 2017, 17, 7796-7802.	9.1	66

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19	Preparation and characterization of ferroelectric Hf _{0.5} Zr _{0.5} O ₂ thin films grown by reactive sputtering. Nanotechnology, 2017, 28, 305703.	2.6	75
20	Alternative interpretations for decreasing voltage with increasing charge in ferroelectric capacitors. Scientific Reports, 2016, 6, 20825.	3.3	43
21	Time-Dependent Negative Capacitance Effects in Al ₂ O ₃ /BaTiO ₃ Bilayers. Nano Letters, 2016, 16, 4375-4381.	9.1	75
22	Giant Negative Electrocaloric Effects of Hf _{0.5} Zr _{0.5} O ₂ Thin Films. Advanced Materials, 2016, 28, 7956-7961.	21.0	115
23	Frustration of Negative Capacitance in Al ₂ O ₃ /BaTiO ₃ Bilayer Structure. Scientific Reports, 2016, 6, 19039.	3.3	44
24	Effect of Zr Content on the Wake-Up Effect in Hf _{1-x} Zr _x O ₂ Films. ACS Applied Materials & Interfaces, 2016, 8, 15466-15475.	8.0	172
25	Two-step polarization switching mediated by a nonpolar intermediate phase in Hf _{0.4} Zr _{0.6} O ₂ thin films. Nanoscale, 2016, 8, 13898-13907.	5.6	44
26	A study on the wake-up effect of ferroelectric Hf _{0.5} Zr _{0.5} O ₂ films by pulse-switching measurement. Nanoscale, 2016, 8, 1383-1389.	5.6	195
27	Interfacial charge-induced polarization switching in Al ₂ O ₃ /Pb(Zr,Ti)O ₃ bi-layer. Journal of Applied Physics, 2015, 118, .	2.5	30
28	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. Applied Physics Letters, 2015, 107, .	3.3	124
29	Toward a multifunctional monolithic device based on pyroelectricity and the electrocaloric effect of thin antiferroelectric Hf _x Zr _{1-x} O ₂ films. Nano Energy, 2015, 12, 131-140.	16.0	174
30	Ferroelectricity and Antiferroelectricity of Doped Thin HfO ₂ -Based Films. Advanced Materials, 2015, 27, 1811-1831.	21.0	777
31	Grain size engineering for ferroelectric Hf _{0.5} Zr _{0.5} O ₂ films by an insertion of Al ₂ O ₃ interlayer. Applied Physics Letters, 2014, 105, .	3.3	187
32	The effects of crystallographic orientation and strain of thin Hf _{0.5} Zr _{0.5} O ₂ film on its ferroelectricity. Applied Physics Letters, 2014, 104, .	3.3	268
33	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. Physica Status Solidi - Rapid Research Letters, 2014, 8, 532-535.	2.4	131
34	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. Applied Physics Letters, 2014, 105, 072902.	3.3	133
35	Thin Hf _x Zr _{1-x} O ₂ Films: A New Lead-Free System for Electrostatic Supercapacitors with Large Energy Storage Density and Robust Thermal Stability. Advanced Energy Materials, 2014, 4, 1400610.	19.5	286
36	Effect of the annealing temperature of thin Hf _{0.3} Zr _{0.7} O ₂ films on their energy storage behavior. Physica Status Solidi - Rapid Research Letters, 2014, 8, 857-861.	2.4	19

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37	Evolution of phases and ferroelectric properties of thin Hf _{0.5} Zr _{0.5} O ₂ films according to the thickness and annealing temperature. Applied Physics Letters, 2013, 102, .	3.3	480