Taehwan Moon

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/12116177/publications.pdf

Version: 2024-02-01

37 papers	4,156 citations	186265 28 h-index	330143 37 g-index
37 all docs	37 docs citations	37 times ranked	2330 citing authors

#	Article	IF	Citations
1	Ferroelectricity and Antiferroelectricity of Doped Thin HfO₂â€Based Films. Advanced Materials, 2015, 27, 1811-1831.	21.0	777
2	Evolution of phases and ferroelectric properties of thin Hf0.5Zr0.5O2 films according to the thickness and annealing temperature. Applied Physics Letters, 2013, 102, .	3.3	480
3	Thin Hf_xZr_{1â€x}O₂ Films: A New Leadâ€Free System for Electrostatic Supercapacitors with Large Energy Storage Density and Robust Thermal Stability. Advanced Energy Materials, 2014, 4, 1400610.	19.5	286
4	The effects of crystallographic orientation and strain of thin Hf0.5Zr0.5O2 film on its ferroelectricity. Applied Physics Letters, 2014, 104, .	3.3	268
5	A study on the wake-up effect of ferroelectric Hf_{0.5}Zr_{0.5}O₂films by pulse-switching measurement. Nanoscale, 2016, 8, 1383-1389.	5.6	195
6	Grain size engineering for ferroelectric Hf0.5Zr0.5O2 films by an insertion of Al2O3 interlayer. Applied Physics Letters, 2014, 105, .	3.3	187
7	Toward a multifunctional monolithic device based on pyroelectricity and the electrocaloric effect of thin antiferroelectric Hf x Zr 1â^'x O 2 films. Nano Energy, 2015, 12, 131-140.	16.0	174
8	Effect of Zr Content on the Wake-Up Effect in Hf_{1â€“x}Zr_xO₂ Films. ACS Applied Materials & Interfaces, 2016, 8, 15466-15475.	8.0	172
9	Understanding the formation of the metastable ferroelectric phase in hafniaâ€“zirconia solid solution thin films. Nanoscale, 2018, 10, 716-725.	5.6	159
10	Study on the degradation mechanism of the ferroelectric properties of thin Hf_{0.5}Zr_{0.5}O₂ films on TiN and Ir electrodes. Applied Physics Letters, 2014, 105, 072902.	3.3	133
11	Ferroelectric properties and switching endurance of Hf_{0.5}Zr_{0.5}O₂ films on TiN bottom and TiN or RuO₂ top electrodes. Physica Status Solidi - Rapid Research Letters, 2014, 8, 532-535.	2.4	131
12	Study on the size effect in Hf0.5Zr0.5O2 films thinner than 8â€‰nm before and after wake-up field cycling. Applied Physics Letters, 2015, 107, .	3.3	124
13	Giant Negative Electrocaloric Effects of Hf_{0.5}Zr_{0.5}O₂ Thin Films. Advanced Materials, 2016, 28, 7956-7961.	21.0	115
14	Scale-up and optimization of HfO2-ZrO2 solid solution thin films for the electrostatic supercapacitors. Nano Energy, 2017, 39, 390-399.	16.0	87
15	Time-Dependent Negative Capacitance Effects in Al₂O₃/BaTiO₃ Bilayers. Nano Letters, 2016, 16, 4375-4381.	9.1	75
16	Preparation and characterization of ferroelectric Hf_{0.5}Zr_{0.5}O₂thin films grown by reactive sputtering. Nanotechnology, 2017, 28, 305703.	2.6	75
17	A comprehensive study on the mechanism of ferroelectric phase formation in hafnia-zirconia nanolaminates and superlattices. Applied Physics Reviews, 2019, 6, .	11.3	73
18	Morphotropic Phase Boundary of Hf_{1â€“x}Zr_xO₂ Thin Films for Dynamic Random Access Memories. ACS Applied Materials & Interfaces, 2018, 10, 42666-42673.	8.0	68

#	Article	IF	Citations
19	Voltage Drop in a Ferroelectric Single Layer Capacitor by Retarded Domain Nucleation. Nano Letters, 2017, 17, 7796-7802.	9.1	66
20	Dispersion in Ferroelectric Switching Performance of Polycrystalline Hf_{0.5}Zr_{0.5}O₂ Thin Films. ACS Applied Materials & Interfaces, 2018, 10, 35374-35384.	8.0	55
21	Nucleationâ€Limited Ferroelectric Orthorhombic Phase Formation in Hf_{0.5}Zr_{0.5}O₂ Thin Films. Advanced Electronic Materials, 2019, 5, 1800436.	5.1	55
22	Transient Negative Capacitance Effect in Atomicâ€Layerâ€Deposited Al₂O₃/Hf_{0.3}Zr_{0.7}O₂ Bilayer Thin Film. Advanced Functional Materials, 2019, 29, 1808228.	14.9	47
23	Frustration of Negative Capacitance in Al2O3/BaTiO3 Bilayer Structure. Scientific Reports, 2016, 6, 19039.	3.3	44
24	Two-step polarization switching mediated by a nonpolar intermediate phase in Hf_{0.4}Zr_{0.6}O₂thin films. Nanoscale, 2016, 8, 13898-13907.	5.6	44
25	Alternative interpretations for decreasing voltage with increasing charge in ferroelectric capacitors. Scientific Reports, 2016, 6, 20825.	3.3	43
26	Unexpectedly low barrier of ferroelectric switching in HfO2 via topological domain walls. Materials Today, 2021, 50, 8-15.	14.2	40
27	A Comparative Study on the Ferroelectric Performances in Atomic Layer Deposited Hf0.5Zr0.5O2 Thin Films Using Tetrakis(ethylmethylamino) and Tetrakis(dimethylamino) Precursors. Nanoscale Research Letters, 2020, 15, 72.	5.7	38
28	Interfacial charge-induced polarization switching in Al2O3/Pb(Zr,Ti)O3 bi-layer. Journal of Applied Physics, 2015, 118, .	2.5	30
29	Unveiling the Origin of Robust Ferroelectricity in Sub-2 nm Hafnium Zirconium Oxide Films. ACS Applied Materials & Interfaces, 2021, 13, 36499-36506.	8.0	24
30	Effect of the annealing temperature of thin Hf_{0.3}Zr_{0.7}O₂films on their energy storage behavior. Physica Status Solidi - Rapid Research Letters, 2014, 8, 857-861.	2.4	19
31	2D Electron Gas at the Interface of Atomicâ€Layerâ€Deposited Al₂O₃/TiO₂ on SrTiO₃ Single Crystal Substrate. Advanced Electronic Materials, 2019, 5, 1800527.	5.1	18
32	Composition, Microstructure, and Electrical Performance of Sputtered SnO Thin Films for p-Type Oxide Semiconductor. ACS Applied Materials & Interfaces, 2018, 10, 3810-3821.	8.0	16
33	Research Update: Diode performance of the Pt/Al2O3/two-dimensional electron gas/SrTiO3 structure and its time-dependent resistance evolution. APL Materials, 2017, 5, .	5.1	8
34	Origin of the Threshold Voltage Shift in a Transistor with a 2D Electron Gas Channel at the Al 2 O 3 /SrTiO 3 Interface. Advanced Electronic Materials, 2020, 6, 1901286.	5.1	8
35	Characterization of a 2D Electron Gas at the Interface of Atomicâ€Layer Deposited Al 2 O 3 /ZnO Thin Films for a Fieldâ€Effect Transistor. Advanced Electronic Materials, 2021, 7, 2000876.	5.1	8
36	Diode Property and Positive Temperature Coefficient of Resistance of Pt/Al₂O₃/Nb:SrTiO₃. Advanced Electronic Materials, 2018, 4, 1800388.	5.1	7

#	Article	IF	Citations
37	Threshold Voltage Modulation in a Transistor with a Two-Dimensional Electron Gas Channel at the Interface between Al₂O₃ and Sub-5 nm ZnO Films. ACS Applied Electronic Materials, 2021, 3, 3247-3255.	4.3	7