Han Joon Kim

List of Publications by Year in Descending Order

37 papers	3,248 citations	27 h-index	37 g-index
37 ext. papers	3,817 ext. citations	8.6 avg, IF	5.06 L-index

#	Paper	IF	Citations
37	Transient Negative Capacitance Effect in Atomic-Layer-Deposited Al2O3/Hf0.3Zr0.7O2 Bilayer Thin Film. *Advanced Functional Materials*, **2019**, 29, 1808228	15.6	31
36	Impact of Zr Content in Atomic Layer Deposited Hf1 □kZrxO2 Thin Films **2019**, 75-101		3
35	Effect of Surface/Interface Energy and Stress on the Ferroelectric Properties **2019**, 145-172		4
34	Electrically-generated memristor based on inkjet printed silver nanoparticles. *Nanoscale Advances*, **2019**, 1, 2990-2998	5.1	13
33	A comprehensive study on the mechanism of ferroelectric phase formation in hafnia-zirconia nanolaminates and superlattices. *Applied Physics Reviews*, **2019**, 6, 041403	17.3	41
32	Composition, Microstructure, and Electrical Performance of Sputtered SnO Thin Films for p-Type Oxide Semiconductor. *ACS Applied Materials & Interfaces*, **2018**, 10, 3810-3821	9.5	13
31	Understanding the formation of the metastable ferroelectric phase in hafnia-zirconia solid solution thin films. *Nanoscale*, **2018**, 10, 716-725	7.7	103
30	Morphotropic Phase Boundary of HfZr O Thin Films for Dynamic Random Access Memories. *ACS Applied Materials & Interfaces*, **2018**, 10, 42666-42673	9.5	37
29	Dispersion in Ferroelectric Switching Performance of Polycrystalline HfZrO Thin Films. *ACS Applied Materials & Interfaces*, **2018**, 10, 35374-35384	9.5	38
28	Filament Shape Dependent Reset Behavior Governed by the Interplay between the Electric Field and Thermal Effects in the Pt/TiO2/Cu Electrochemical Metallization Device. *Advanced Electronic Materials*, **2017**, 3, 1600404	6.4	20
27	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
26	Research Update: Diode performance of the Pt/Al2O3/two-dimensional electron gas/SrTiO3 structure and its time-dependent resistance evolution. *APL Materials*, **2017**, 5, 042301	5.7	6
25	Scale-up and optimization of HfO2-ZrO2 solid solution thin films for the electrostatic supercapacitors. *Nano Energy*, **2017**, 39, 390-399	17.1	59
24	Voltage Drop in a Ferroelectric Single Layer Capacitor by Retarded Domain Nucleation. *Nano Letters*, **2017**, 17, 7796-7802	11.5	43
23	Preparation and characterization of ferroelectric HfZrO thin films grown by reactive sputtering. *Nanotechnology*, **2017**, 28, 305703	3.4	48
22	A study on the wake-up effect of ferroelectric Hf0.5Zr0.5O2 films by pulse-switching measurement. *Nanoscale*, **2016**, 8, 1383-9	7.7	153
21	Frustration of Negative Capacitance in Al2O3/BaTiO3 Bilayer Structure. *Scientific Reports*, **2016**, 6, 19039	4.9	37

20	Effect of Zr Content on the Wake-Up Effect in Hf1-xZrxO2 Films. *ACS Applied Materials & Interfaces*, **2016**, 8, 15466-75	9.5	132
19	Two-step polarization switching mediated by a nonpolar intermediate phase in Hf0.4Zr0.6O2 thin films. *Nanoscale*, **2016**, 8, 13898-907	7.7	36
18	Alternative interpretations for decreasing voltage with increasing charge in ferroelectric capacitors. *Scientific Reports*, **2016**, 6, 20825	4.9	36
17	Time-Dependent Negative Capacitance Effects in Al2O3/BaTiO3 Bilayers. *Nano Letters*, **2016**, 16, 4375-81	11.5	59
16	Giant Negative Electrocaloric Effects of Hf Zr O Thin Films. *Advanced Materials*, **2016**, 28, 7956-7961	24	91
15	Improved Initial Growth Behavior of SrO and SrTiO3 Films Grown by Atomic Layer Deposition Using {Sr(demamp)(tmhd)}2 as Sr-Precursor. *Chemistry of Materials*, **2015**, 27, 3881-3891	9.6	29
14	Ferroelectricity and antiferroelectricity of doped thin HfO2-based films. *Advanced Materials*, **2015**, 27, 1811-31	24	554
13	Reducing the nano-scale defect formation of atomic-layer-deposited SrTiO3 films by adjusting the cooling rate of the crystallization annealing of the seed layer. *Thin Solid Films*, **2015**, 589, 723-729	2.2	8
12	Interfacial charge-induced polarization switching in Al2O3/Pb(Zr,Ti)O3 bi-layer. *Journal of Applied Physics*, **2015**, 118, 224105	2.5	24
11	Study on the size effect in Hf0.5Zr0.5O2 films thinner than 8 nm before and after wake-up field cycling. *Applied Physics Letters*, **2015**, 107, 192907	3.4	92
10	Toward a multifunctional monolithic device based on pyroelectricity and the electrocaloric effect of thin antiferroelectric Hf x Zr 1⊠ O 2 films. *Nano Energy*, **2015**, 12, 131-140	17.1	144
9	Effect of the annealing temperature of thin Hf0.3Zr0.7O2 films on their energy storage behavior. *Physica Status Solidi - Rapid Research Letters*, **2014**, 8, 857-861	2.5	16
8	Grain size engineering for ferroelectric Hf0.5Zr0.5O2 films by an insertion of Al2O3 interlayer. *Applied Physics Letters*, **2014**, 105, 192903	3.4	134
7	The effects of crystallographic orientation and strain of thin Hf0.5Zr0.5O2 film on its ferroelectricity. *Applied Physics Letters*, **2014**, 104, 072901	3.4	191
6	Ferroelectric properties and switching endurance of Hf0.5Zr0.5O2 films on TiN bottom and TiN or RuO2 top electrodes. *Physica Status Solidi - Rapid Research Letters*, **2014**, 8, 532-535	2.5	102
5	Study on the degradation mechanism of the ferroelectric properties of thin Hf0.5Zr0.5O2 films on TiN and Ir electrodes. *Applied Physics Letters*, **2014**, 105, 072902	3.4	99
4	Thin HfxZr1-xO2 Films: A New Lead-Free System for Electrostatic Supercapacitors with Large Energy Storage Density and Robust Thermal Stability. *Advanced Energy Materials*, **2014**, 4, 1400610	21.8	221
3	Effect of forming gas annealing on the ferroelectric properties of Hf0.5Zr0.5O2 thin films with and without Pt electrodes. *Applied Physics Letters*, **2013**, 102, 112914	3.4	117

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, 242905	3.4	352
1	Poster: Polar Dielectrics, Optics, and Ionics633-663		