

Chunxiang Zhu

List of Publications by Year in descending order

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docs citations

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times ranked

5021
citing authors

#	ARTICLE	IF	CITATIONS
1	Low Drift Reference-less ISFET Comprising Two Graphene Films with Different Engineered Sensitivities. ACS Applied Electronic Materials, 2022, 4, 416-423.	4.3	3
2	Defect Engineering in Thickness-Controlled Bi ₂ O ₂ Se-Based Transistors by Argon Plasma Treatment. ACS Applied Materials & Interfaces, 2022, 14, 15370-15380.	8.0	7
3	Nonvolatile Logic-In-Memory Computing based on Solution-Processed CuI Memristor. Advanced Electronic Materials, 2022, 8, .	5.1	4
4	CVD Polycrystalline Graphene as Sensing Film of Extended-Gate ISFET for Low-Drift pH Sensor. Journal of the Electrochemical Society, 2021, 168, 067520.	2.9	3
5	Extended Gate Ion-Sensitive Field-Effect Transistors Using Al ₂ O ₃ /Hexagonal Boron Nitride Nanolayers for pH Sensing. ACS Applied Nano Materials, 2020, 3, 403-408.	5.0	18
6	Zero-bias mid-infrared graphene photodetectors with bulk photoresponse and calibration-free polarization detection. Nature Communications, 2020, 11, 6404.	12.8	111
7	Extended Gate Reference-FET (REFET) Using 2D h-BN Sensing Layer for pH Sensing Applications. IEEE Electron Device Letters, 2020, 41, 159-162.	3.9	10
8	Unipolar n-Type Conduction in Black Phosphorus Induced by Atomic Layer Deposited MgO. IEEE Electron Device Letters, 2019, 40, 471-474.	3.9	9
9	Electronic Devices and Circuits Based on Wafer-Scale Polycrystalline Monolayer MoS ₂ by Chemical Vapor Deposition. Advanced Electronic Materials, 2019, 5, 1900393.	5.1	57
10	Artificial Synapses Based on Multiterminal Memtransistors for Neuromorphic Application. Advanced Functional Materials, 2019, 29, 1901106.	14.9	192
11	Employing a Bifunctional Molybdate Precursor To Grow the Highly Crystalline MoS ₂ for High-Performance Field-Effect Transistors. ACS Applied Materials & Interfaces, 2019, 11, 14239-14248.	8.0	10
12	Waveguide-Integrated Black Phosphorus Photodetector for Mid-Infrared Applications. ACS Nano, 2019, 13, 913-921.	14.6	164
13	Low-Frequency Noise in Layered ReS ₂ Field Effect Transistors on HfO ₂ and Its Application for pH Sensing. ACS Applied Materials & Interfaces, 2018, 10, 7248-7255.	8.0	54
14	Efficient and reliable surface charge transfer doping of black phosphorus <i>via</i> atomic layer deposited MgO toward high performance complementary circuits. Nanoscale, 2018, 10, 17007-17014.	5.6	34
15	Selectivity of MoS ₂ gas sensors based on a time constant spectrum method. Sensors and Actuators A: Physical, 2017, 255, 28-33.	4.1	16
16	MoS ₂ based photosensor detecting both light wavelength and intensity. Sensors and Actuators A: Physical, 2017, 266, 205-210.	4.1	0
17	Electrical performance and low frequency noise in hexagonal boron nitride encapsulated MoSe ₂ dual-gated field effect transistors. Applied Physics Letters, 2017, 111, .	3.3	20
18	pH Sensing and Low-Frequency Noise Characteristics of Low Temperature (400 Â°C) p-Channel SOI Schottky ISFETs. IEEE Electron Device Letters, 2017, 38, 1146-1149.	3.9	11

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19	Orderly Nanopatterned Indium Tin Oxide Electrode Combined with Atomic Layer Deposited Metal Oxide Interlayer for Inverted Organic Solar Cells. Energy Technology, 2015, 3, 906-912.	3.8	4
20	MoS ₂ oxygen sensor with gate voltage stress induced performance enhancement. Applied Physics Letters, 2015, 107, .	3.3	27
21	Solution processed F doped ZnO (ZnO:F) for thin film transistors and improved stability through co-doping with alkali metals. Journal of Materials Chemistry C, 2015, 3, 1787-1793.	5.5	64
22	A work-function tunable polyelectrolyte complex (PEI:PSS) as a cathode interfacial layer for inverted organic solar cells. Journal of Materials Chemistry A, 2014, 2, 7788-7794.	10.3	49
23	Enhanced inverted organic solar cell performance by post-treatments of solution-processed ZnO buffer layers. RSC Advances, 2014, 4, 6646.	3.6	45
24	TiO _x /Al bilayer as cathode buffer layer for inverted organic solar cell. Applied Physics Letters, 2013, 103, .	3.3	21
25	Modeling the Negative Quadratic VCC of SiO_2 in MIM Capacitor. IEEE Electron Device Letters, 2011, 32, 1671-1673.	3.9	13
26	A simple and efficient solar cell parameter extraction method from a single current-voltage curve. Journal of Applied Physics, 2011, 110, .	2.5	216
27	Effective Surface Passivation by Novel SiH_4 and NH_3 Treatment and BTI Characteristics on Interface-Engineered High-Mobility HfO_2 -Gated Ge pMOSFETs. IEEE Transactions on Electron Devices, 2010, 57, 1399-1407.	3.0	19
28	Mechanism investigation and structure design of organic solar cells for improved energy conversion efficiency. , 2010, , .		1
29	Rapid-melting-growth of Ge on insulator using Cobalt (Co) induced-crystallized Ge as the seed for lateral growth. , 2010, , .		0
30	An Organic-Based Diode-Memory Device With Rectifying Property for Crossbar Memory Array Applications. IEEE Electron Device Letters, 2009, 30, 487-489.	3.9	13
31	Performance Improvement of Sm_2O_3 MIM Capacitors by Using Plasma Treatment After Dielectric Formation. IEEE Electron Device Letters, 2009, 30, 1033-1035.	3.9	11
32	Interface-Engineered High-Mobility High- k /Ge pMOSFETs With 1-nm Equivalent Oxide Thickness. IEEE Transactions on Electron Devices, 2009, , .	3.0	29
33	Physical and Electrical Characterization of Metal-Insulator-Metal Capacitors With Sm_2O_3 and $\text{Sm}_2\text{O}_3/\text{SiO}_2$ Laminated Dielectrics for Analog Circuit Applications. IEEE Transactions on Electron Devices, 2009, 56, 2683-2691.	3.0	72
34	Effective Modulation of Quadratic Voltage Coefficient of Capacitance in MIM Capacitors Using $\text{Sm}_2\text{O}_3/\text{SiO}_2$ Dielectric Stack. IEEE Electron Device Letters, 2009, 30, 460-462.	3.9	18
35	Enhancement in open circuit voltage induced by deep interface hole traps in polymer-fullerene bulk heterojunction solar cells. Applied Physics Letters, 2009, 94, 103305.	3.3	25
36	Correction to "An Organic-Based Diode-Memory Device With Rectifying Property for Crossbar Memory Array Applications". IEEE Electron Device Letters, 2009, 30, 1218-1218.	3.9	11

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37	Integration of High- κ Dielectrics and Metal Gate on Gate-All-Around Si-Nanowire-Based Architecture for High-Speed Nonvolatile Charge-Trapping Memory. IEEE Electron Device Letters, 2009, 30, 662-664.	3.9	8
38	Polymer electronic memories: Materials, devices and mechanisms. Progress in Polymer Science, 2008, 33, 917-978.	24.7	924
39	Simple tandem organic photovoltaic cells for improved energy conversion efficiency. Applied Physics Letters, 2008, 92, 083310.	3.3	63
40	Low temperature poly-germanium growth process on insulating substrate using palladium-induced lateral crystallization. , 2008, , .		0
41	Bistable Electrical Switching and Rewritable Memory Effect in a Thin Film Acrylate Copolymer Containing Carbazole-Oxadiazole Donor- π -Acceptor Pendant Groups. Materials Research Society Symposia Proceedings, 2008, 1114, 50201.	0.1	0
42	Interface engineering for high- κ /Ge gate stack. , 2008, , .		2
43	The use of thermal initiator to make organic bulk heterojunction solar cells with a good percolation path. Applied Physics Letters, 2008, 93, .	3.3	13
44	Efficient multilayer organic solar cells using the optical interference peak. Applied Physics Letters, 2008, 93, 043307.	3.3	49
45	Thermally stable polymer memory devices based on a π -conjugated triad. Applied Physics Letters, 2008, 92, .	3.3	49
46	High- κ gate stack on germanium substrate with fluorine incorporation. Applied Physics Letters, 2008, 92, .	3.3	67
47	Effects of fluorine incorporation and forming gas annealing on high- κ gated germanium metal-oxide-semiconductor with GeO ₂ surface passivation. Applied Physics Letters, 2008, 93, .	3.3	41
48	Effect of Gate Dopant Diffusion on Leakage Current in $\text{h}^+\text{Poly-Si}/\text{HfO}_2$ and Examination of Leakage Paths by Conducting Atomic Force Microscopy. IEEE Electron Device Letters, 2007, 28, 373-375.	3.9	7
49	Electrically Bistable Thin-Film Device Based on PVK and GNPs Polymer Material. IEEE Electron Device Letters, 2007, 28, 107-110.	3.9	63
50	Effects of Sulfur Passivation on Germanium MOS Capacitors With HfON Gate Dielectric. IEEE Electron Device Letters, 2007, 28, 976-979.	3.9	68
51	Reliability analysis of thin HfO ₂ /SiO ₂ gate dielectric stack. , 2007, , .		2
52	Polymer memories: Bistable electrical switching and device performance. Polymer, 2007, 48, 5182-5201.	3.8	211
53	A Comparative Study of $\text{HfTaON}/\text{SiO}_2$ and HfON/SiO_2 Gate Stacks With TaN Metal Gate for Advanced CMOS Applications. IEEE Transactions on Electron Devices, 2007, 54, 284-290.	3.0	8
54	Characteristics of Self-Aligned Gate-First Ge p- and n-Channel MOSFETs Using CVD HfO_2 Gate Dielectric and Si Surface Passivation. IEEE Transactions on Electron Devices, 2007, 54, 733-741.	3.0	26

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55	Advanced HfTaON/SiO ₂ / gate stack with high mobility and low leakage current for low-standby-power application. IEEE Electron Device Letters, 2006, 27, 498-501.	3.9	12
56	Gate-first Germanium nMOSFET with CVD HfO ₂ / gate dielectric and silicon surface passivation. IEEE Electron Device Letters, 2006, 27, 479-481.	3.9	21
57	Non-volatile WORM memory device based on an acrylate polymer with electron donating carbazole pendant groups. Organic Electronics, 2006, 7, 173-180.	2.6	106
58	A WORM-Type Memory Device with Rectifying Effect Based on a Conjugated Copolymer of PF6Eu on Si Substrate. Materials Research Society Symposia Proceedings, 2006, 937, 1.	0.1	2
59	Bi-stable State for WORM Application Based on Carbazole-containing Polymer. Materials Research Society Symposia Proceedings, 2006, 937, 1.	0.1	0
60	High density and program-erasable metal-insulator-silicon capacitor with a dielectric structure of SiO ₂ •HfO ₂ •Al ₂ O ₃ nanolaminate•Al ₂ O ₃ . Applied Physics Letters, 2006, 88, 042905.	3.3	20
61	Effective suppression of fermi level pinning in poly-Si/HfO ₂ / gate stack by using poly-SiGe gate. , 2006, , .		0
62	Ge MOS transistor technology and reliability. , 2006, , .		0
63	A novel program-erasable high- κ / AlN-Si MIS capacitor. IEEE Electron Device Letters, 2005, 26, 148-150.	3.9	15
64	Metal-insulator-metal RF bypass capacitor using niobium oxide (Nb ₂ O ₅) with HfO ₂ / Al ₂ O ₃ barriers. IEEE Electron Device Letters, 2005, 26, 625-627.	3.9	31
65	Germanium pMOSFETs with Schottky-barrier germanide S/D, high- κ / gate dielectric and metal gate. IEEE Electron Device Letters, 2005, 26, 81-83.	3.9	94
66	Study of Germanium Diffusion in HfO ₂ Gate Dielectric of MOS Device Application. Materials Research Society Symposia Proceedings, 2004, 829, 432.	0.1	1
67	RF, DC, and reliability characteristics of ALD HfO ₂ /Al ₂ O ₃ laminate MIM capacitors for Si RF IC applications. IEEE Transactions on Electron Devices, 2004, 51, 886-894.	3.0	69
68	Characteristics of High- κ /Spacer Offset-Gated Polysilicon TFTs. IEEE Transactions on Electron Devices, 2004, 51, 1304-1308.	3.0	30
69	Improvements on Surface Carrier Mobility and Electrical Stability of MOSFETs Using HfTaO Gate Dielectric. IEEE Transactions on Electron Devices, 2004, 51, 2154-2160.	3.0	18
70	Schottky-Barrier S/D MOSFETs With High- κ /Gate Dielectrics and Metal-Gate Electrode. IEEE Electron Device Letters, 2004, 25, 268-270.	3.9	99
71	Mobility Enhancement in TaN Metal-Gate MOSFETs Using Tantalum Incorporated HfO ₂ /Gate Dielectric. IEEE Electron Device Letters, 2004, 25, 501-503.	3.9	20
72	κ -Al ₂ O ₃ •Ge-On-Insulator n- and p-MOSFETs With Fully NiSi and NiGe Dual Gates. IEEE Electron Device Letters, 2004, 25, 138-140.	3.9	52

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73	Fully Silicided NiSi:HfO ₂ /LaAlO ₃ /SiGe n-MOSFETs With High Electron Mobility. IEEE Electron Device Letters, 2004, 25, 559-561.	3.9	44
74	A Novel Self-Aligned Offset-Gated Polysilicon TFT Using High-κ Dielectric Spacers. IEEE Electron Device Letters, 2004, 25, 194-195.	3.9	16
75	A TaN/HfO ₂ /Ge pMOSFET With Novel SiH ₄ Surface Passivation. IEEE Electron Device Letters, 2004, 25, 631-633.	3.9	109
76	Improvement of Voltage Linearity in High-κ MIM Capacitors Using HfO ₂ /SiO ₂ /Stacked Dielectric. IEEE Electron Device Letters, 2004, 25, 538-540.	3.9	84
77	Evidence and Understanding of ALD HfO ₂ /Al ₂ O ₃ Laminate MIM Capacitors Outperforming Sandwich Counterparts. IEEE Electron Device Letters, 2004, 25, 681-683.	3.9	33
78	Effect of surface NH ₃ anneal on the physical and electrical properties of HfO ₂ films on Ge substrate. Applied Physics Letters, 2004, 84, 3741-3743.	3.3	143
79	High-performance MIM capacitor using ALD high-κ HfO ₂ -Al ₂ O ₃ laminate dielectrics. IEEE Electron Device Letters, 2003, 24, 730-732.	3.9	55
80	A high-density MIM capacitor (13 fF/√4m/sup 2/) using ALD HfO ₂ dielectrics. IEEE Electron Device Letters, 2003, 24, 63-65.	3.9	126
81	Physical and electrical characteristics of HfN gate electrode for advanced MOS devices. IEEE Electron Device Letters, 2003, 24, 230-232.	3.9	70
82	MIM capacitors using atomic-layer-deposited high-κ (HfO ₂ /Al ₂ O ₃) _{1-x} (Al ₂ O ₃ /SiO ₂) _x dielectrics. IEEE Electron Device Letters, 2003, 24, 60-62.	3.9	60
83	Fully silicided NiSi and germanided NiGe dual gates on SiO ₂ n- and p-MOSFETs. IEEE Electron Device Letters, 2003, 24, 739-741.	3.9	25
84	Fully silicided NiSi gate on La ₂ O ₃ MOSFETs. IEEE Electron Device Letters, 2003, 24, 348-350.	3.9	29
85	Very high density RF MIM capacitors (17 fF/√4m/sup 2/) using high-κ Al ₂ O ₃ doped Ta ₂ O ₅ dielectrics. IEEE Microwave and Wireless Components Letters, 2003, 13, 431-433.	3.2	33
86	Physical and electrical characterization of HfO ₂ metal-insulator-metal capacitors for Si analog circuit applications. Journal of Applied Physics, 2003, 94, 551-557.	2.5	103
87	Lanthanide (Tb)-doped HfO ₂ for high-density MIM capacitors. IEEE Electron Device Letters, 2003, 24, 442-444.	3.9	20
88	PVD HfO ₂ for high-precision MIM capacitor applications. IEEE Electron Device Letters, 2003, 24, 387-389.	3.9	57
89	High-density MIM capacitors using AlTaOx dielectrics. IEEE Electron Device Letters, 2003, 24, 306-308.	3.9	25
90	Material and Electrical Characterization of HfO ₂ Films for MIM Capacitors Application. Materials Research Society Symposia Proceedings, 2003, 766, 331.	0.1	0

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91	Mim Capacitors with HfO ₂ and HfAlO _x for Si RF and Analog Applications. Materials Research Society Symposia Proceedings, 2003, 766, 591.	0.1	0
92	A high performance MIM capacitor using HfO ₂ dielectrics. IEEE Electron Device Letters, 2002, 23, 514-516.	3.9	99
93	HfO ₂ /Si and lanthanide-doped HfO ₂ /Si MIM capacitors for RF/mixed IC applications. , 0, , .		8
94	RF passive devices on Si with excellent performance close to ideal devices designed by electro-magnetic simulation. , 0, , .		31
95	Fully silicided NiSi and germanided NiGe dual gates on SiO ₂ /Si and Al ₂ O ₃ /Ge-on-insulator MOSFETs. , 0, , .		22
96	Microwave coplanar filters on Si substrates. , 0, , .		4
97	High density RF MIM capacitors using high- ϵ_r AlTaO _x dielectrics. , 0, , .		7
98	Analysis of leakage mechanisms and leakage pathways in intra-level Cu interconnects. , 0, , .		5
99	A comparison study of high-density MIM capacitors with ALD HfO ₂ /Al ₂ O ₃ laminated, sandwiched and stacked dielectrics. , 0, , .		0
100	Simulation Study of FIBL in Ge MOSFETs with High-k Gate Dielectrics. , 0, , .		1
101	Direct tunneling stress-induced leakage current in NMOS devices with ultrathin gate oxides. , 0, , .		0