

Chunxiang Zhu

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

89 papers	3,979 citations	34 h-index	62 g-index
101 ext. papers	4,413 ext. citations	5 avg, IF	4.92 L-index

#	Paper	IF	Citations
89	Low Drift Reference-less ISFET Comprising Two Graphene Films with Different Engineered Sensitivities. <i>ACS Applied Electronic Materials</i> , 2022 , 4, 416-423	4	0
88	Zero-bias mid-infrared graphene photodetectors with bulk photoresponse and calibration-free polarization detection. <i>Nature Communications</i> , 2020 , 11, 6404	17.4	37
87	Extended Gate Reference-FET (REFET) Using 2D h-BN Sensing Layer for pH Sensing Applications. <i>IEEE Electron Device Letters</i> , 2020 , 41, 159-162	4.4	5
86	Extended Gate Ion-Sensitive Field-Effect Transistors Using Al ₂ O ₃ /Hexagonal Boron Nitride Nanolayers for pH Sensing. <i>ACS Applied Nano Materials</i> , 2020 , 3, 403-408	5.6	8
85	Unipolar n-Type Conduction in Black Phosphorus Induced by Atomic Layer Deposited MgO. <i>IEEE Electron Device Letters</i> , 2019 , 40, 471-474	4.4	6
84	Electronic Devices and Circuits Based on Wafer-Scale Polycrystalline Monolayer MoS ₂ by Chemical Vapor Deposition. <i>Advanced Electronic Materials</i> , 2019 , 5, 1900393	6.4	38
83	Artificial Synapses Based on Multiterminal Memtransistors for Neuromorphic Application. <i>Advanced Functional Materials</i> , 2019 , 29, 1901106	15.6	121
82	Employing a Bifunctional Molybdate Precursor To Grow the Highly Crystalline MoS for High-Performance Field-Effect Transistors. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 14239-14248	8.5	4
81	Waveguide-Integrated Black Phosphorus Photodetector for Mid-Infrared Applications. <i>ACS Nano</i> , 2019 , 13, 913-921	16.7	96
80	Low-Frequency Noise in Layered ReS Field Effect Transistors on HfO and Its Application for pH Sensing. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 7248-7255	9.5	38
79	Efficient and reliable surface charge transfer doping of black phosphorus via atomic layer deposited MgO toward high performance complementary circuits. <i>Nanoscale</i> , 2018 , 10, 17007-17014	7.7	27
78	Selectivity of MoS ₂ gas sensors based on a time constant spectrum method. <i>Sensors and Actuators A: Physical</i> , 2017 , 255, 28-33	3.9	14
77	MoS ₂ based photosensor detecting both light wavelength and intensity. <i>Sensors and Actuators A: Physical</i> , 2017 , 266, 205-210	3.9	
76	Electrical performance and low frequency noise in hexagonal boron nitride encapsulated MoSe ₂ dual-gated field effect transistors. <i>Applied Physics Letters</i> , 2017 , 111, 082105	3.4	16
75	pH Sensing and Low-Frequency Noise Characteristics of Low Temperature (400 °C) p-Channel SOI Schottky ISFETs. <i>IEEE Electron Device Letters</i> , 2017 , 38, 1146-1149	4.4	9
74	MoS ₂ oxygen sensor with gate voltage stress induced performance enhancement. <i>Applied Physics Letters</i> , 2015 , 107, 123105	3.4	21
73	Solution processed F doped ZnO (ZnO:F) for thin film transistors and improved stability through co-doping with alkali metals. <i>Journal of Materials Chemistry C</i> , 2015 , 3, 1787-1793	7.1	49

72	Orderly Nanopatterned Indium Tin Oxide Electrode Combined with Atomic-Layer-Deposited Metal Oxide Interlayer for Inverted Organic Solar Cells. <i>Energy Technology</i> , 2015 , 3, 906-912	3.5	4
71	A work-function tunable polyelectrolyte complex (PEI:PSS) as a cathode interfacial layer for inverted organic solar cells. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 7788-7794	13	42
70	Enhanced inverted organic solar cell performance by post-treatments of solution-processed ZnO buffer layers. <i>RSC Advances</i> , 2014 , 4, 6646	3.7	34
69	TiOx/Al bilayer as cathode buffer layer for inverted organic solar cell. <i>Applied Physics Letters</i> , 2013 , 103, 173303	3.4	20
68	Modeling the Negative Quadratic VCC of SiO_2 in MIM Capacitor. <i>IEEE Electron Device Letters</i> , 2011 , 32, 1671-1673	4.4	10
67	A simple and efficient solar cell parameter extraction method from a single current-voltage curve. <i>Journal of Applied Physics</i> , 2011 , 110, 064504	2.5	172
66	Mechanism investigation and structure design of organic solar cells for improved energy conversion efficiency 2010 ,		1
65	Effective Surface Passivation by Novel SiH_4/NH_3 Treatment and BTI Characteristics on Interface-Engineered High-Mobility HfO_2 -Gated Ge pMOSFETs. <i>IEEE Transactions on Electron Devices</i> , 2010 , 57, 1399-1407	2.9	18
64	An Organic-Based Diode-Memory Device With Rectifying Property for Crossbar Memory Array Applications. <i>IEEE Electron Device Letters</i> , 2009 , 30, 487-489	4.4	12
63	Performance Improvement of Sm_2O_3 MIM Capacitors by Using Plasma Treatment After Dielectric Formation. <i>IEEE Electron Device Letters</i> , 2009 , 30, 1033-1035	4.4	10
62	Interface-Engineered High-Mobility High- κ /Ge pMOSFETs With 1-nm Equivalent Oxide Thickness. <i>IEEE Transactions on Electron Devices</i> , 2009 ,	2.9	22
61	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. <i>IEEE Transactions on Electron Devices</i> , 2009 , 56, 2683-2691	2.9	37
60	Effective Modulation of Quadratic Voltage Coefficient of Capacitance in MIM Capacitors Using $\text{Sm}_2\text{O}_3/\text{SiO}_2$ Dielectric Stack. <i>IEEE Electron Device Letters</i> , 2009 , 30, 460-462	4.4	18
59	Enhancement in open circuit voltage induced by deep interface hole traps in polymer-fullerene bulk heterojunction solar cells. <i>Applied Physics Letters</i> , 2009 , 94, 103305	3.4	21
58	Correction to "An Organic-Based Diode-Memory Device With Rectifying Property for Crossbar Memory Array Applications". <i>IEEE Electron Device Letters</i> , 2009 , 30, 1218-1218	4.4	11
57	Integration of High- κ Dielectrics and Metal Gate on Gate-All-Around Si-Nanowire-Based Architecture for High-Speed Nonvolatile Charge-Trapping Memory. <i>IEEE Electron Device Letters</i> , 2009 , 30, 662-664	4.4	7
56	Simple tandem organic photovoltaic cells for improved energy conversion efficiency. <i>Applied Physics Letters</i> , 2008 , 92, 083310	3.4	59
55	Bistable Electrical Switching and Rewritable Memory Effect in a Thin Film Acrylate Copolymer Containing Carbazole-Oxadiazole Donor-Acceptor Pendant Groups. <i>Materials Research Society Symposia Proceedings</i> , 2008 , 1114, 50201		

54	The use of thermal initiator to make organic bulk heterojunction solar cells with a good percolation path. <i>Applied Physics Letters</i> , 2008 , 93, 043304	3-4	12
53	Efficient multilayer organic solar cells using the optical interference peak. <i>Applied Physics Letters</i> , 2008 , 93, 043307	3-4	43
52	Thermally stable polymer memory devices based on a π -conjugated triad. <i>Applied Physics Letters</i> , 2008 , 92, 143302	3-4	45
51	High-k gate stack on germanium substrate with fluorine incorporation. <i>Applied Physics Letters</i> , 2008 , 92, 163505	3-4	61
50	Effects of fluorine incorporation and forming gas annealing on high-k gated germanium metal-oxide-semiconductor with GeO ₂ surface passivation. <i>Applied Physics Letters</i> , 2008 , 93, 073504	3-4	37
49	Polymer electronic memories: Materials, devices and mechanisms. <i>Progress in Polymer Science</i> , 2008 , 33, 917-978	29.6	860
48	Effect of Gate Dopant Diffusion on Leakage Current in $\text{p}^+\text{Poly-Si}/\text{HfO}_2$ and Examination of Leakage Paths by Conducting Atomic Force Microscopy. <i>IEEE Electron Device Letters</i> , 2007 , 28, 373-375	4-4	5
47	Electrically Bistable Thin-Film Device Based on PVK and GNPs Polymer Material. <i>IEEE Electron Device Letters</i> , 2007 , 28, 107-110	4-4	59
46	Effects of Sulfur Passivation on Germanium MOS Capacitors With HfON Gate Dielectric. <i>IEEE Electron Device Letters</i> , 2007 , 28, 976-979	4-4	59
45	Reliability analysis of thin HfO ₂ /SiO ₂ gate dielectric stack 2007 ,		2
44	Polymer memories: Bistable electrical switching and device performance. <i>Polymer</i> , 2007 , 48, 5182-5201	3.9	195
43	A Comparative Study of $\text{HfTaON}/\text{SiO}_2$ and HfON/SiO_2 Gate Stacks With TaN Metal Gate for Advanced CMOS Applications. <i>IEEE Transactions on Electron Devices</i> , 2007 , 54, 284-290	2.9	5
42	Characteristics of Self-Aligned Gate-First Ge p- and n-Channel MOSFETs Using CVD HfO_2 Gate Dielectric and Si Surface Passivation. <i>IEEE Transactions on Electron Devices</i> , 2007 , 54, 733-741	2.9	22
41	A WORM-Type Memory Device with Rectifying Effect Based on a Conjugated Copolymer of PF6Eu on Si Substrate. <i>Materials Research Society Symposia Proceedings</i> , 2006 , 937, 1		1
40	Bi-stable State for WORM Application Based on Carbazole-containing Polymer. <i>Materials Research Society Symposia Proceedings</i> , 2006 , 937, 1		
39	High density and program-erasable metal-insulator-silicon capacitor with a dielectric structure of $\text{SiO}_2/\text{HfO}_2/\text{Al}_2\text{O}_3/\text{nanolaminated Al}_2\text{O}_3$. <i>Applied Physics Letters</i> , 2006 , 88, 042905	3-4	19
38	Advanced $\text{HfTaON}/\text{SiO}_2$ gate stack with high mobility and low leakage current for low-standby-power application. <i>IEEE Electron Device Letters</i> , 2006 , 27, 498-501	4-4	10
37	Gate-first Germanium nMOSFET with CVD HfO_2 gate dielectric and silicon surface passivation. <i>IEEE Electron Device Letters</i> , 2006 , 27, 479-481	4-4	18

36	Non-volatile WORM memory device based on an acrylate polymer with electron donating carbazole pendant groups. <i>Organic Electronics</i> , 2006 , 7, 173-180	3.5	104
35	Metal-insulator-metal RF bypass capacitor using niobium oxide (Nb ₂ O ₅) with HfO ₂ /Al ₂ O ₃ barriers. <i>IEEE Electron Device Letters</i> , 2005 , 26, 625-627	4.4	29
34	Germanium pMOSFETs with Schottky-barrier germanide S/D, high-/spl kappa/ gate dielectric and metal gate. <i>IEEE Electron Device Letters</i> , 2005 , 26, 81-83	4.4	82
33	A novel program-erasable high-/spl kappa/ AlN-Si MIS capacitor. <i>IEEE Electron Device Letters</i> , 2005 , 26, 148-150	4.4	13
32	Study of Germanium Diffusion in HfO ₂ Gate Dielectric of MOS Device Application. <i>Materials Research Society Symposia Proceedings</i> , 2004 , 829, 432		1
31	RF, DC, and reliability characteristics of ALD HfO/sub 2/-Al/sub 2/O/sub 3/ laminate MIM capacitors for Si RF IC applications. <i>IEEE Transactions on Electron Devices</i> , 2004 , 51, 886-894	2.9	62
30	Characteristics of high-K spacer offset-gated polysilicon TFTs. <i>IEEE Transactions on Electron Devices</i> , 2004 , 51, 1304-1308	2.9	22
29	Improvements on surface carrier mobility and electrical stability of MOSFETs using HfTaO gate dielectric. <i>IEEE Transactions on Electron Devices</i> , 2004 , 51, 2154-2160	2.9	18
28	Schottky-barrier S/D MOSFETs with high-k gate dielectrics and metal-gate electrode. <i>IEEE Electron Device Letters</i> , 2004 , 25, 268-270	4.4	83
27	Mobility enhancement in TaN metal-gate MOSFETs using tantalum incorporated HfO/sub 2/ gate dielectric. <i>IEEE Electron Device Letters</i> , 2004 , 25, 501-503	4.4	19
26	Al/sub 2/O/sub 3/-Ge-on-insulator n- and p-MOSFETs with fully NiSi and NiGe dual gates. <i>IEEE Electron Device Letters</i> , 2004 , 25, 138-140	4.4	45
25	Fully silicided NiSi:Hf-LaAlO/sub 3//SG-GOI n-MOSFETs with high electron mobility. <i>IEEE Electron Device Letters</i> , 2004 , 25, 559-561	4.4	41
24	A novel self-aligned offset-gated polysilicon TFT using high-/spl kappa/ dielectric spacers. <i>IEEE Electron Device Letters</i> , 2004 , 25, 194-195	4.4	15
23	A TaN-HfO/sub 2/-Ge pMOSFET with NovelSiH/sub 4/ surface passivation. <i>IEEE Electron Device Letters</i> , 2004 , 25, 631-633	4.4	99
22	Improvement of voltage linearity in high-/spl kappa/ MIM capacitors using HfO ₂ -SiO ₂ stacked dielectric. <i>IEEE Electron Device Letters</i> , 2004 , 25, 538-540	4.4	77
21	Evidence and understanding of ALD HfO ₂ -Al ₂ O ₃ laminate MIM capacitors outperforming sandwich counterparts. <i>IEEE Electron Device Letters</i> , 2004 , 25, 681-683	4.4	31
20	Effect of surface NH ₃ anneal on the physical and electrical properties of HfO ₂ films on Ge substrate. <i>Applied Physics Letters</i> , 2004 , 84, 3741-3743	3.4	132
19	Material and Electrical Characterization of HfO ₂ Films for MIM Capacitors Application. <i>Materials Research Society Symposia Proceedings</i> , 2003 , 766, 331		

18	Mim Capacitors with HfO ₂ and HfAlO _x for Si RF and Analog Applications. <i>Materials Research Society Symposia Proceedings</i> , 2003 , 766, 591		
17	High-performance MIM capacitor using ALD high-k HfO ₂ -Al ₂ O ₃ laminate dielectrics. <i>IEEE Electron Device Letters</i> , 2003 , 24, 730-732	4.4	49
16	A high-density MIM capacitor (13 fF/μm ²) using ALD HfO ₂ dielectrics. <i>IEEE Electron Device Letters</i> , 2003 , 24, 63-65	4.4	108
15	Physical and electrical characteristics of HfN gate electrode for advanced MOS devices. <i>IEEE Electron Device Letters</i> , 2003 , 24, 230-232	4.4	65
14	MIM capacitors using atomic-layer-deposited high-κ (HfO ₂)/sub 1-x/(Al ₂ O ₃)/sub x/ dielectrics. <i>IEEE Electron Device Letters</i> , 2003 , 24, 60-62	4.4	52
13	Fully silicided NiSi and germanided NiGe dual gates on SiO ₂ n- and p-MOSFETs. <i>IEEE Electron Device Letters</i> , 2003 , 24, 739-741	4.4	22
12	Fully silicided NiSi gate on La ₂ O ₃ MOSFETs. <i>IEEE Electron Device Letters</i> , 2003 , 24, 348-350	4.4	25
11	Very high density RF MIM capacitors (17 fF/μm ²) using high-κ Al ₂ O ₃ doped Ta ₂ O ₅ dielectrics. <i>IEEE Microwave and Wireless Components Letters</i> , 2003 , 13, 431-433	2.6	31
10	Physical and electrical characterization of HfO ₂ metal/insulator/metal capacitors for Si analog circuit applications. <i>Journal of Applied Physics</i> , 2003 , 94, 551-557	2.5	96
9	Lanthanide (Tb)-doped HfO ₂ for high-density MIM capacitors. <i>IEEE Electron Device Letters</i> , 2003 , 24, 442-444	4.4	18
8	PVD HfO ₂ for high-precision MIM capacitor applications. <i>IEEE Electron Device Letters</i> , 2003 , 24, 387-389	4.4	55
7	High-density MIM capacitors using AlTaO _x dielectrics. <i>IEEE Electron Device Letters</i> , 2003 , 24, 306-308	4.4	20
6	A high performance MIM capacitor using HfO ₂ dielectrics. <i>IEEE Electron Device Letters</i> , 2002 , 23, 514-516	4.4	78
5	High density RF MIM capacitors using high-κ AlTaO _x /sub x/ dielectrics		3
4	RF passive devices on Si with excellent performance close to ideal devices designed by electro-magnetic simulation		23
3	Fully silicided NiSi and germanided NiGe dual gates on SiO ₂ /sub 2//Si and Al/sub 2/O/sub 3//Ge-on-insulator MOSFETs		13
2	Microwave coplanar filters on Si substrates		4
1	CVD Polycrystalline Graphene as Sensing Film of Extended-Gate ISFET for Low-Drift pH Sensor. <i>Journal of the Electrochemical Society</i> ,	3.9	2

