

# Fei Zhou

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/12052358/publications.pdf>

Version: 2024-02-01

47  
papers

1,205  
citations

304602

22  
h-index

377752

34  
g-index

47  
all docs

47  
docs citations

47  
times ranked

1040  
citing authors

#	ARTICLE	IF	CITATIONS
1	Demonstration of Synaptic Behaviors and Resistive Switching Characterizations by Proton Exchange Reactions in Silicon Oxide. Scientific Reports, 2016, 6, 21268.	1.6	84
2	Intrinsic SiO <sub>x</sub> -based unipolar resistive switching memory. II. Thermal effects on charge transport and characterization of multilevel programming. Journal of Applied Physics, 2014, 116, .	1.1	83
3	Understanding the resistive switching characteristics and mechanism in active SiO <sub>x</sub> -based resistive switching memory. Journal of Applied Physics, 2012, 112, .	1.1	72
4	Effects of barrier layers on device performance of high mobility In <sub>0.7</sub> Ga <sub>0.3</sub> As metal-oxide-semiconductor field-effect-transistors. Applied Physics Letters, 2010, 96, .	1.5	66
5	Electroforming and resistive switching in silicon dioxide resistive memory devices. RSC Advances, 2015, 5, 21215-21236.	1.7	59
6	Intrinsic SiO <sub>x</sub> -based unipolar resistive switching memory. I. Oxide stoichiometry effects on reversible switching and program window optimization. Journal of Applied Physics, 2014, 116, .	1.1	55
7	Sub-50-nm $\text{In}_{0.7}\text{Ga}_{0.3}\text{As}$ MOSFETs With Various Barrier Layer Materials. IEEE Electron Device Letters, 2012, 33, 32-34.	2.2	51
8	Memory switching properties of e-beam evaporated SiO <sub>x</sub> on N <sup>++</sup> Si substrate. Applied Physics Letters, 2012, 100, .	1.5	48
9	Study of polarity effect in SiO <sub>x</sub> -based resistive switching memory. Applied Physics Letters, 2012, 101, 052111.	1.5	47
10	Effects of gate-first and gate-last process on interface quality of In <sub>0.53</sub> Ga <sub>0.47</sub> As metal-oxide-semiconductor capacitors using atomic-layer-deposited Al <sub>2</sub> O <sub>3</sub> and HfO <sub>2</sub> oxides. Applied Physics Letters, 2009, 95, .	1.5	42
11	Stabilization of multiple resistance levels by current-sweep in SiO <sub>x</sub> -based resistive switching memory. Applied Physics Letters, 2015, 106, .	1.5	41
12	InAs inserted InGaAs buried channel metal-oxide-semiconductor field-effect-transistors with atomic-layer-deposited gate dielectric. Applied Physics Letters, 2011, 98, .	1.5	36
13	Study of self-compliance behaviors and internal filament characteristics in intrinsic SiO <sub>x</sub> -based resistive switching memory. Applied Physics Letters, 2016, 108, .	1.5	35
14	Improved electrical characteristics of TaN/Al <sub>2</sub> O <sub>3</sub> /In <sub>0.53</sub> Ga <sub>0.47</sub> As metal-oxide-semiconductor field-effect transistors by fluorine incorporation. Applied Physics Letters, 2009, 95, 013501.	1.5	33
15	Dynamic conductance characteristics in HfO <sub>x</sub> -based resistive random access memory. RSC Advances, 2017, 7, 12984-12989.	1.7	32
16	Oxygen-induced bi-modal failure phenomenon in SiO <sub>x</sub> -based resistive switching memory. Applied Physics Letters, 2013, 103, 033521.	1.5	30
17	Improving the on-current of In <sub>0.7</sub> Ga <sub>0.3</sub> As tunneling field-effect-transistors by p <sup>++</sup> /n <sup>+</sup> tunneling junction. Applied Physics Letters, 2011, 98, .	1.5	26
18	Investigation of edge- and bulk-related resistive switching behaviors and backward-scan effects in SiO <sub>x</sub> -based resistive switching memory. Applied Physics Letters, 2013, 103, 193508.	1.5	26

#	ARTICLE	IF	CITATIONS
19	Tristate Operation in Resistive Switching of $\text{SiO}_2$ Thin Films. IEEE Electron Device Letters, 2012, 33, 1702-1704.	2.2	25
20	Fluorinated HfO <sub>2</sub> gate dielectric engineering on In <sub>0.53</sub> Ga <sub>0.47</sub> As metal-oxide-semiconductor field-effect-transistors. Applied Physics Letters, 2010, 96, .	1.5	24
21	Effects of fluorine incorporation into HfO <sub>2</sub> gate dielectrics on InP and In <sub>0.53</sub> Ga <sub>0.47</sub> As metal-oxide-semiconductor field-effect-transistors. Applied Physics Letters, 2010, 96, 253502.	1.5	24
22	Bidirectional voltage biased implication operations using SiO <sub>x</sub> based unipolar memristors. Applied Physics Letters, 2015, 107, 183501.	1.5	22
23	Effect of hydrogen/deuterium incorporation on electroforming voltage of SiO <sub>x</sub> resistive random access memory. Applied Physics Letters, 2012, 101, .	1.5	20
24	Effects of sidewall etching on electrical properties of SiO <sub>x</sub> resistive random access memory. Applied Physics Letters, 2013, 103, 213505.	1.5	20
25	High-k InGaAs metal-oxide-semiconductor field-effect-transistors with various barrier layer materials. Applied Physics Letters, 2011, 99, 033507.	1.5	19
26	A study of the interfacial resistive switching mechanism by proton exchange reactions on the SiO <sub>x</sub> layer. Physical Chemistry Chemical Physics, 2016, 18, 700-703.	1.3	19
27	Discussion on device structures and hermetic encapsulation for SiO <sub>x</sub> random access memory operation in air. Applied Physics Letters, 2014, 105, .	1.5	17
28	Characterization of external resistance effect and performance optimization in unipolar-type SiO <sub>x</sub> -based resistive switching memory. Applied Physics Letters, 2014, 105, .	1.5	16
29	Nonplanar InGaAs Gate Wrapped Around Field-Effect Transistors. IEEE Transactions on Electron Devices, 2014, 61, 2332-2337.	1.6	16
30	Improved Electrical Properties of HfO <sub>2</sub> -Based Gate Dielectrics on InP Substrate Using Al <sub>2</sub> O <sub>3</sub> /HfO <sub>2</sub> and SF <sub>6</sub> Plasma Treatment. Electrochemical and Solid-State Letters, 2011, 14, H291.	2.2	14
31	Physical and Electrical Analysis of Post- $\text{HfO}_2$ Fluorine Plasma Treatment for the Improvement of $\text{In}_{0.53}\text{Ga}_{0.47}\text{As}$ MOSFETs' Performance. IEEE Transactions on Electron Devices, 2012, 59, 139-144.	1.6	13
32	Effects of Fluorine Incorporation on the Electrical Properties of Atomic-Layer-Deposited Al <sub>2</sub> O <sub>3</sub> Gate Dielectric on InP Substrate. Journal of the Electrochemical Society, 2010, 157, G71.	1.3	11
33	Impact of SF <sub>6</sub> plasma treatment on performance of TaN/HfO <sub>2</sub> /InP metal-oxide-semiconductor field-effect transistor. Applied Physics Letters, 2011, 98, 043506.	1.5	10
34	Channel Thickness Dependence of InGaAs Quantum-Well Field-Effect Transistors With High- $\kappa$ Gate Dielectrics. IEEE Electron Device Letters, 2012, 33, 1255-1257.	2.2	10
35	Random Process of Filamentary Growth and Localized Switching Mechanism in Resistive Switching of SiO <sub>x</sub> Thin Films. ECS Journal of Solid State Science and Technology, 2012, 1, P148-P151.	0.9	9
36	Study of SiO <sub>x</sub> -based complementary resistive switching memristor. , 2012, , .		9

#	ARTICLE	IF	CITATIONS
37	Comprehensive trap-level study in SiO <sub>2</sub> -based resistive switching memory. , 2013, , .		9
38	HfO <sub>2</sub> dielectrics engineering using low power SF <sub>6</sub> plasma on InP and In <sub>0.53</sub> Ga <sub>0.47</sub> As metal-oxide-semiconductor field-effect-transistors. Applied Physics Letters, 2012, 100, 243508.	1.5	6
39	Optimization of Fluorine Plasma Treatment for Interface Improvement on HfO <sub>2</sub> /In <sub>0.53</sub> Ga <sub>0.47</sub> As MOSFETs. Applied Sciences (Switzerland), 2012, 2, 233-244.	1.3	6
40	Effects of InP barrier layer thicknesses and different ALD oxides on device performance of In <sub>0.7</sub> Ga <sub>0.3</sub> As MOSFETs. , 2010, , .		5
41	Effect of indium concentration on InGaAs channel metal-oxide-semiconductor field-effect transistors with atomic layer deposited gate dielectric. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2011, 29, .	0.6	3
42	III-V Gate-wrap-around field-effect-transistors with high-k gate dielectrics. , 2014, , .		3
43	Study of SiO <sub>2</sub> -based resistive switching memory (ReRAM) in integrated one diode &#x2014; One resistor (1D-1R) architecture. , 2015, , .		3
44	Effects of SF <sub>6</sub> plasma treatment on electrical characteristics of TaN-Al <sub>2</sub> O <sub>3</sub> -InP metal-oxide-semiconductor field-effect transistor. Applied Physics Letters, 2012, 101, 063505.	1.5	2
45	Resistive switching characteristics and mechanisms in silicon oxide memory devices. ChemistrySelect, 2016, 1, .	0.7	2
46	Review of Recently Progress on Neural Electronics and Memcomputing Applications in Intrinsic SiO <sub>x</sub> -Based Resistive Switching Memory. , 2018, , .		2
47	A synaptic device built in one diode&#x2014;one resistor (1D&#x2014;1R) architecture with intrinsic SiO <sub>x</sub> -based resistive switching memory. ChemistrySelect, 2016, 1, .	0.7	0