

# Ajay Kumar

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1458219/publications.pdf>

Version: 2024-02-01

70  
papers

783  
citations

471509

17  
h-index

580821

25  
g-index

71  
all docs

71  
docs citations

71  
times ranked

221  
citing authors

#	ARTICLE	IF	CITATIONS
1	Highly efficient tin oxide-based colloidal lead sulfide quantum dot solar cell. Energy Storage, 2023, 5, .	4.3	4
2	Influence of GaN/ZrO <sub>2</sub> interfacial layer defects on 8-nm GaN-SOI-FinFET for reliable RFIC design. AEU - International Journal of Electronics and Communications, 2022, 144, 154045.	2.9	3
3	Significant Improvement in Magnetic and Magnetoelectric Characteristics of (0.95 $\hat{a}$ ) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 Ceramics. IEEE Transactions on Magnetics, 2022, 58, 1-14.	2.1	1
4	Hot carrier reliability assessment of vacuum gate dielectric trench MOSFET (TG-VacuFET). European Physical Journal Plus, 2022, 137, 1.	2.6	0
5	Thermal Stability Analysis of Surface Wave Assisted Bio-Photonic Sensor. Photonics, 2022, 9, 324.	2.0	20
6	Performance Assessment of InGaN Double Gate Stack-Oxide MOSFET based Phosphine Gas Sensor: A Catalytic Metal Gate Approach. , 2022, , .		1
7	Performance Analysis of DAST Material-Assisted Photonic-Crystal-Based Electrical Tunable Optical Filter. Crystals, 2022, 12, 992.	2.2	14
8	Reliability of Sub-20Ånm Black Phosphorus Trench (BP-T) MOSFET in High-Temperature Harsh Environment. Silicon, 2021, 13, 1277-1283.	3.3	3
9	Simulation of perovskite solar cell employing ZnO as electron transport layer (ETL) for improved efficiency. Materials Today: Proceedings, 2021, 46, 1684-1687.	1.8	11
10	Numerical assessment of high-efficiency lead-free perovskite solar cells. Materials Today: Proceedings, 2021, 45, 5041-5046.	1.8	5
11	Perovskite-CIGS materials based tandem solar cell with an increased efficiency of 27.5%. Materials Today: Proceedings, 2021, 45, 5047-5051.	1.8	5
12	Performance Investigation of Nanoscaled GaN-BTG MOSFET for Analog/Linearity and Low Power Applications. , 2021, , .		0
13	Numerical Simulation of GaN-BTG MOSFET for Suppression of SCEs. , 2021, , .		0
14	20Ånm GAA-GaN/Al <sub>2</sub> O <sub>3</sub> nanowire MOSFET for improved analog/linearity performance metrics and suppressed distortion. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	2.3	9
15	Superior energy storage performance coupled with excellent electrical characteristics in lead-free Ba <sub>0.8</sub> Ca <sub>0.2</sub> TiO <sub>3</sub> -(Bi <sub>0.80</sub> Mg <sub>0.20</sub> )(Ti <sub>0.65</sub> Mg <sub>0.30</sub> )O <sub>3</sub> ceramics. Journal Physics D: Applied Physics, 2021, 54, 495504.	2.8	1
16	Numerical assessment of high-k spacer on symmetric S/D underlap GAA junctionless accumulation mode silicon nanowire MOSFET for RFIC design. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	2.3	17
17	Design Considerations and Capacitance Dependent Parametric Assessment of Gate Metal Engineered SiNW MOSFET for ULSI Switching Applications. Silicon, 2020, 12, 1501-1510.	3.3	5
18	Analysis of structural parameters on sensitivity of black phosphorus junctionless recessed channel MOSFET for biosensing application. Microsystem Technologies, 2020, 26, 2227-2233.	2.0	12

#	ARTICLE	IF	CITATIONS
19	Performance evaluation of linearity and intermodulation distortion of nanoscale GaN-SOI FinFET for RFIC design. AEU - International Journal of Electronics and Communications, 2020, 115, 153052.	2.9	31
20	Numerical simulation and parametric assessment of GaN buffered trench gate MOSFET for low power applications. IET Circuits, Devices and Systems, 2020, 14, 915-922.	1.4	9
21	Palladium-based trench gate MOSFET for highly sensitive hydrogen gas sensor. Materials Science in Semiconductor Processing, 2020, 120, 105274.	4.0	26
22	Gate Engineered GAA Silicon-Nanowire MOSFET for High Switching Performance. , 2020, , .		0
23	Internet of Things (IoT) for Bank Locker Security System. , 2020, , .		9
24	Design of 4-bit ALU using TEAM Memristor Model and CMOS Logic. , 2020, , .		2
25	Design Analysis and Comparative Study of GDI Based Full Adder Design. , 2020, , .		1
26	The Effect of Gate Stack and High- $\kappa$ Spacer on Device Performance of a Junctionless GAA FinFET. , 2020, , .		12
27	Sub-10 nm High-k Dielectric SOI-FinFET for HighPerformance Low Power Applications. , 2020, , .		7
28	Thermal Reliability of GaN-BTG-MOSFET for High-Performance Applications in Integrated Circuits. , 2020, , .		1
29	Increased efficiency of 23% for CIGS solar cell by using ITO as front contact. Materials Today: Proceedings, 2020, 28, 361-365.	1.8	17
30	Dielectric modulated transparent gate thin film transistor for biosensing applications. Materials Today: Proceedings, 2020, 28, 141-145.	1.8	12
31	Recent advances and progresses in photonic devices for passive radiative cooling application: a review. Journal of Nanophotonics, 2020, 14, .	1.0	25
32	Reviewâ€”Thin-Film Transistors (TFTs) for Highly Sensitive Biosensing Applications: A Review. ECS Journal of Solid State Science and Technology, 2020, 9, 115022.	1.8	22
33	Assessment of High-k Gate Stack on Sub-10 nm SOI-FinFET for High-Performance Analog and RF Applications Perspective. ECS Journal of Solid State Science and Technology, 2020, 9, 123009.	1.8	12
34	Static and CV Analysis of Gate Engineered GAA Silicon Nanowire MOSFET for High-Performance Applications. Lecture Notes in Electrical Engineering, 2020, , 59-68.	0.4	0
35	Detection of Hazardous Analyte Using Transparent Gate Thin-Film Transistor. Lecture Notes in Networks and Systems, 2020, , 197-204.	0.7	1
36	Assessment of high-k gate stacked In <sub>2</sub> O <sub>5</sub> Sn gate recessed channel MOSFET for x-ray radiation reliability. Engineering Research Express, 2020, 2, 035017.	1.6	1

#	ARTICLE	IF	CITATIONS
37	TCAD analysis of transparent gate thin film transistor (TFT) for high performance applications. AIP Conference Proceedings, 2019, , .	0.4	0
38	Non-Quasi-Static Small-Signal Modeling of TGRC MOSFET in Parameter Perspective for RF/Microwave Applications. , 2019, , .		0
39	Effect of Temperature on GaAs Junctionless FinFET Using High- $\epsilon^r$ Dielectric. , 2019, , .		1
40	Sub-30nm In <sub>2</sub> O <sub>5</sub> Sn gate electrode recessed channel MOSFET: A biosensor for early stage diagnostics. Vacuum, 2019, 164, 46-52.	3.5	19
41	Internet of Things (IoT) Based Smart Shopping Centre Using RFID. , 2019, , .		4
42	Carbon Nanotube Recessed Channel (CNT-RC) MOSFET for High Linearity/ULSI Applications. , 2019, , .		2
43	Low-Temperature Reliability of Sub-20nm 4H-SiC Trench MOSFET with Black Phosphorus Gate Material. , 2019, , .		1
44	Sub-20nm GaAs junctionless FinFET for biosensing application. Vacuum, 2019, 160, 467-471.	3.5	26
45	RF noise modeling of Black Phosphorus Junctionless Trench MOSFET in strong inversion region. Superlattices and Microstructures, 2019, 125, 72-79.	3.1	8
46	GaN Silicon-on-Insulator (SOI) N-Channel FinFET for High-Performance Low Power Applications. , 2019, , .		5
47	Comprehensive analysis of sub-20nm black phosphorus based junctionless-recessed channel MOSFET for analog/RF applications. Superlattices and Microstructures, 2018, 116, 171-180.	3.1	34
48	Reliability Issues of In <sub>2</sub> O <sub>5</sub> Sn Gate Electrode Recessed Channel MOSFET: Impact of Interface Trap Charges and Temperature. IEEE Transactions on Electron Devices, 2018, 65, 860-866.	3.0	47
49	Temperature Reliability of Junctionless Twin Gate Recessed Channel (JL-TGRC) MOSFET with Different Gate Material for Low Power Digital-Logic Applications. , 2018, , .		0
50	GaAs Junctionless FinFET Using Si <sub>3</sub> N <sub>4</sub> Spacer for High Performance Analog Application. , 2018, , .		4
51	Radiation Analysis of N-Channel TGRC-MOSFET: An X-Ray Dosimeter. IEEE Transactions on Electron Devices, 2018, 65, 5014-5020.	3.0	19
52	GaAs Junctionless FinFET Using High-k Dielectric for High-Performance Applications. , 2018, , .		3
53	Ultralow-power dielectric-modulated nanogap-embedded sub-20-nm TGRC-MOSFET for biosensing applications. Journal of Computational Electronics, 2018, 17, 1807-1815.	2.5	25
54	Linearity and Distortion Assessment of Black Phosphorus-Based Junctionless RC MOSFET. , 2018, , .		0

#	ARTICLE	IF	CITATIONS
55	Investigation of Different Gate Materials for Improved Device Performance in RC MOSFET. , 2018, , .		1
56	In 2 O 5 Sn based transparent gate recessed channel MOSFET: RF small-signal model for microwave applications. AEU - International Journal of Electronics and Communications, 2018, 93, 233-241.	2.9	15
57	Effect of structured parameters on the hot-carrier immunity of transparent gate recessed channel (TGRC) MOSFET. Microsystem Technologies, 2017, 23, 4057-4064.	2.0	9
58	Investigation of parasitic capacitances of In2O5Sn gate electrode recessed channel MOSFET for ULSI switching applications. Microsystem Technologies, 2017, 23, 5867-5874.	2.0	37
59	Effect of trench depth and gate length shrinking assessment on the analog and linearity performance of TGRC-MOSFET. Superlattices and Microstructures, 2017, 109, 626-640.	3.1	37
60	Reliability of high-k gate stack on transparent gate recessed channel (TGRC) MOSFET. , 2017, , .		1
61	Influence of interface trap charge density on reliability issues of transparent gate recessed channel (TGRC) MOSFET. , 2017, , .		1
62	Twin gate rectangular recessed channel (TG-RRC) MOSFET for digital-logic applications. , 2017, , .		0
63	Small-signal modeling of In2O5Sn based transparent gate recessed channel MOSFET for microwave/RF applications. , 2017, , .		4
64	Power gain assessment of ITO based Transparent Gate Recessed Channel (TGRC) MOSFET for RF/wireless applications. Superlattices and Microstructures, 2016, 91, 290-301.	3.1	32
65	TCAD RF performance investigation of Transparent Gate Recessed Channel MOSFET. Microelectronics Journal, 2016, 49, 36-42.	2.0	53
66	Analysis of novel transparent gate recessed channel (TGRC) MOSFET for improved analog behaviour. Microsystem Technologies, 2016, 22, 2665-2671.	2.0	41
67	Oxide bound impact on hot-carrier degradation for gate electrode workfunction engineered (GEWE) silicon nanowire MOSFET. Microsystem Technologies, 2016, 22, 2655-2664.	2.0	10
68	Effect of dielectric engineering on analog and linearity performance of gate electrode workfunction engineered (GEWE) silicon nanowire MOSFET. , 2015, , .		4
69	Impact of device parameter variation on RF performance of gate electrode workfunction engineered (GEWE)-silicon nanowire (SiNW) MOSFET. Journal of Computational Electronics, 2015, 14, 798-810.	2.5	39
70	Impact of Channel Doping and Gate Length on Small Signal Behaviour of Gate Electrode Workfunction Engineered Silicon Nanowire MOSFET at THz Frequency. , 2014, , .		2