

# Chitrakant Sahu

## List of Publications by Year in descending order

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docs citations

46  
times ranked

301  
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of Negative Capacitance in Partially Ground Plane based SELBOX FET on Capacitance Matching and SCEs. Silicon, 2022, 14, 7099-7108.	1.8	4
2	Biologically Sensitive FETs: Holistic Design Considerations from Simulation, Modeling and Fabrication Perspectives. Silicon, 2022, 14, 9237-9261.	1.8	3
3	Effect of geometry and temperature variations on sensitivity and linearity of junctionless pH sensing FET: An experimental study. Superlattices and Microstructures, 2022, 163, 107186.	1.4	2
4	Fabrication and pH Sensing Characteristics Measurement of Back Gate ZnO Thin Film Planar FET. Silicon, 2022, 14, 11687-11698.	1.8	4
5	Performance Analysis of MOS-HEMT as a Biosensor: A Dielectric Modulation Approach. Silicon, 2022, 14, 10023-10036.	1.8	6
6	Hydrogen-ion Sensing Characteristics of Cavity Based Triple-Gate Junctionless Biofet for Enhanced Sensitivity. Silicon, 2021, 13, 1391-1401.	1.8	3
7	Gate All Around Junctionless Dielectric Modulated BioFET Based Hybrid Biosensor. Silicon, 2021, 13, 2041-2052.	1.8	7
8	Analytical Modeling of Surface Potential and Figure of Merit Computation for Planar Junctionless pH Sensing BioFET. IEEE Nanotechnology Magazine, 2021, 20, 534-542.	1.1	12
9	CMOS-Compatible Ex-Situ Incorporated Junctionless Enhancement-Mode Thin Polysilicon Film FET pH Sensor. IEEE Transactions on Device and Materials Reliability, 2021, 21, 2-8.	1.5	8
10	Analysis of AlGaIn/GaN HEMT and Its Operational Improvement Using a Grated Gate Field Plate. Journal of Electronic Materials, 2021, 50, 6218-6227.	1.0	11
11	AlGaIn/GaN HEMT pH Sensor Simulation Model and Its Maximum Transconductance Considerations for Improved Sensitivity. IEEE Sensors Journal, 2021, 21, 19753-19761.	2.4	15
12	Performance Assessment of Dual Metal Graded Channel Negative Capacitance Junctionless FET for Digital/Analog field. , 2021, , .		0
13	Analysis of Current Drift in Al <sub>2</sub> O <sub>3</sub> Gated Junctionless pH Sensitive Field Effect Transistor. , 2021, , .		1
14	Comparative Analog Analysis of Si, Ge and Si <sub>0.7</sub> Ge <sub>0.3</sub> Channel Based DG-JLFET. , 2021, , .		0
15	Analytical Modeling of Surface Potential and Drain Current for Virtually Doped Symmetrical Dielectric Modulated BioFET. IEEE Sensors Journal, 2020, 20, 4749-4757.	2.4	14
16	A Novel Multi gate Junctionfree gated resistor ISFET for pH detection. , 2019, , .		1
17	Analog/RF Performance Investigation of Dopingless FET for Ultra-Low Power Applications. IEEE Access, 2019, 7, 141810-141816.	2.6	16
18	Fabrication and pH Sensitivity Analysis of <i>In-Situ</i> Doped Polycrystalline Silicon Thin-Film Junctionless BioFET. IEEE Electron Device Letters, 2019, 40, 997-1000.	2.2	19

#	ARTICLE	IF	CITATIONS
19	Ultra-Thin Si(1-x) Ge(x) Envelope Layer Induced Hole Quantum Well in Cylindrical Surrounding Gate p-FET with ITRS Considerations. , 2019, , .		1
20	GAA 3D Si-MOSFET Based Hybrid Biosensor with Integrated Amplifier. , 2019, , .		1
21	Virtually doped SiGe tunnel FET for enhanced sensitivity in biosensing applications. Superlattices and Microstructures, 2018, 120, 75-89.	1.4	25
22	Biosensing Performance Optimization of DMFET for Fully Filled and Partially Filled Cavity. , 2018, , .		2
23	A highly linear RF mixer using gate-all-around junctionless transistor. International Journal of Electronics Letters, 2017, 5, 129-136.	0.7	7
24	Fabrication of E-mode InGaN/AlGaIn/GaN HEMT using FIB based lithography. , 2017, , .		0
25	Analog/RF performance comparison of junctionless and dopingless field effect transistor. , 2017, , .		2
26	SiGe Source Charge Plasma TFET for Biosensing Applications. , 2017, , .		16
27	Mixed-Mode Simulation of Common Emitter Amplifier Design Using Bipolar Charge Plasma Transistor. , 2016, , .		0
28	Temperature sensitivity analysis of dopingless charge-plasma transistor. Solid-State Electronics, 2016, 117, 94-99.	0.8	30
29	Scalability and process induced variation analysis of polarity controlled silicon nanowire transistor. Journal of Computational Electronics, 2016, 15, 53-60.	1.3	3
30	Potential Benefits and Sensitivity Analysis of Dopingless Transistor for Low Power Applications. IEEE Transactions on Electron Devices, 2015, 62, 729-735.	1.6	89
31	PVT-Aware Design of Dopingless Dynamically Configurable Tunnel FET. IEEE Transactions on Electron Devices, 2015, 62, 2404-2409.	1.6	63
32	Electrically doped dynamically configurable field-effect transistor for low-power and high-performance applications. Electronics Letters, 2015, 51, 1284-1286.	0.5	39
33	Simplified drain current model for pinch-off double gate junctionless transistor. Electronics Letters, 2014, 50, 116-118.	0.5	5
34	Subthreshold Analog/RF performance estimation of doping-less DGFET for ULP applications. , 2014, , .		1
35	Performance comparison of bulk and SOI planar junctionless SONOS memory. , 2014, , .		0
36	Device and circuit performance analysis of double gate junctionless transistors at $L = 18 \text{ nm}$ . Journal of Engineering, 2014, 2014, 105-110.	0.6	17

#	ARTICLE	IF	CITATIONS
37	Linearly separable pattern classification using memristive crossbar circuits. , 2014, , .		2
38	Design and performance projection of symmetric bipolar chargeâ€plasma transistor on SOI. Electronics Letters, 2014, 50, 1461-1463.	0.5	30
39	Charge-Plasma Based Process Variation Immune Junctionless Transistor. IEEE Electron Device Letters, 2014, 35, 411-413.	2.2	181
40	Electrical characteristics and short channel performance comparison of different gate junctionless transistors. , 2013, , .		2
41	Investigation of ultra-thin BOX junctionless transistor at channel length of 20 nm. , 2013, , .		0
42	Characteristics of gate inside junctionless transistor with channel length and doping concentration. , 2013, , .		1
43	Virtually Doped Schottky Buried Metal Layer Planar Junctionless FET for SCE Suppression at sub-28nm Technology Nodes. Silicon, 0, , 1.	1.8	1
44	Influence of dielectric material near tunnel junction on analog/ RF and linearity figure of merits in hetero dielectric ( HG ) TFET : A detailed study. International Journal of RF and Microwave Computer-Aided Engineering, 0, , e22915.	0.8	0
45	Electrical Characterization and Study of Current Drift Phenomena and Hysteresis Mechanism in Junctionless Ion-Sensitive Field-Effect Transistor. Silicon, 0, , 1.	1.8	1