

# Sanatan Chattoapadhyay

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6720621/publications.pdf>

Version: 2024-02-01

174  
papers

2,767  
citations

218381

26  
h-index

253896

43  
g-index

178  
all docs

178  
docs citations

178  
times ranked

2394  
citing authors

#	ARTICLE	IF	CITATIONS
1	Comparative Performance Analysis of the Dielectrically Modulated Full- Gate and Short-Gate Tunnel FET-Based Biosensors. IEEE Transactions on Electron Devices, 2015, 62, 994-1001.	1.6	151
2	Study and Analysis of the Effects of SiGe Source and Pocket-Doped Channel on Sensing Performance of Dielectrically Modulated Tunnel FET-Based Biosensors. IEEE Transactions on Electron Devices, 2016, 63, 2589-2596.	1.6	141
3	Strained-Si heterostructure field effect transistors. Semiconductor Science and Technology, 1998, 13, 1225-1246.	1.0	116
4	A model for capacitance reconstruction from measured lossy MOS capacitance-voltage characteristics. Semiconductor Science and Technology, 2003, 18, 82-87.	1.0	96
5	High-performance nMOSFETs using a novel strained Si/SiGe CMOS architecture. IEEE Transactions on Electron Devices, 2003, 50, 1961-1969.	1.6	81
6	Impact of strained-Si thickness and Ge out-diffusion on gate oxide quality for strained-Si surface channel n-MOSFETs. IEEE Transactions on Electron Devices, 2006, 53, 1142-1152.	1.6	74
7	Synthesis and characterization of graphene from waste dry cell battery for electronic applications. RSC Advances, 2016, 6, 10557-10564.	1.7	69
8	Chemical bath deposited (CBD) CuO thin films on n-silicon substrate for electronic and optical applications: Impact of growth time. Applied Surface Science, 2017, 418, 380-387.	3.1	69
9	Physical and electrochemical characterization of reduced graphene oxide/silver nanocomposites synthesized by adopting a green approach. RSC Advances, 2015, 5, 25357-25364.	1.7	63
10	Green synthesis of cadmium oxide decorated reduced graphene oxide nanocomposites and its electrical and antibacterial properties. Materials Science and Engineering C, 2019, 99, 696-709.	3.8	62
11	Interfacial reactions of Ni on Si <sub>1-x</sub> Ge <sub>x</sub> (x=0.2, 0.3) at low temperature by rapid thermal annealing. Journal of Applied Physics, 2002, 92, 214-217.	1.1	57
12	Thermal reaction of nickel and Si <sub>0.75</sub> Ge <sub>0.25</sub> alloy. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2002, 20, 1903.	0.9	52
13	FT-MIR supported Electrical Impedance Spectroscopy based study of sugar adulterated honeys from different floral origin. Talanta, 2017, 171, 327-334.	2.9	44
14	Interplay of defects in 1.2 MeV Ar irradiated ZnO. Journal of Applied Physics, 2010, 107, .	1.1	43
15	A Semianalytical Description of the Hole Band Structure in Inversion Layers for the Physically Based Modeling of pMOS Transistors. IEEE Transactions on Electron Devices, 2007, 54, 2164-2173.	1.6	41
16	Clustered vacancies in ZnO: chemical aspects and consequences on physical properties. Journal Physics D: Applied Physics, 2018, 51, 105107.	1.3	40
17	Green synthesis of silver nanoparticles-based nanofluids and investigation of their antimicrobial activities. Microfluidics and Nanofluidics, 2014, 16, 541-551.	1.0	39
18	Defect driven ferromagnetism in SnO <sub>2</sub> : a combined study using density functional theory and positron annihilation spectroscopy. RSC Advances, 2015, 5, 1148-1152.	1.7	35

#	ARTICLE	IF	CITATIONS
19	Study of Single- and Dual-Channel Designs for High-Performance Strained-Si <sup>+</sup> SiGe n-MOSFETs. IEEE Transactions on Electron Devices, 2004, 51, 1245-1253.	1.6	33
20	Surface defects induced ferromagnetism in mechanically milled nanocrystalline ZnO. Journal of Applied Physics, 2013, 114, .	1.1	33
21	C <sup>+</sup> V characterization of strained Si/SiGe multiple heterojunction capacitors as a tool for heterojunction MOSFET channel design. Semiconductor Science and Technology, 2003, 18, 738-744.	1.0	32
22	Optical and electronic properties of chemical bath deposited p-CuO and n-ZnO nanowires on silicon substrates: p-CuO/n-ZnO nanowires solar cells with high open-circuit voltage and short-circuit current. Thin Solid Films, 2020, 699, 137861.	0.8	32
23	Extraction of interface state density of Pt/p-strained-Si Schottky diode. Thin Solid Films, 1998, 335, 142-145.	0.8	31
24	Characterization of nano-powder grown ultra-thin film p-CuO/n-Si hetero-junctions by employing vapour-liquid-solid method for photovoltaic applications. Thin Solid Films, 2016, 612, 331-336.	0.8	30
25	Raman spectroscopic analysis on Li, N and (Li,N) implanted ZnO. Materials Science in Semiconductor Processing, 2018, 80, 111-117.	1.9	30
26	Study of strain relaxation in Si/SiGe metal-oxide-semiconductor field-effect transistors. Journal of Applied Physics, 2005, 97, 114504.	1.1	26
27	Estimation of step-by-step induced stress in a sequential process integration of nano-scale SOS MOSFETs with high- $\kappa$ gate dielectrics. Semiconductor Science and Technology, 2013, 28, 125011.	1.0	26
28	Physical and electrical characterization of reduced graphene oxide synthesized adopting green route. Bulletin of Materials Science, 2016, 39, 543-550.	0.8	26
29	Surface Passivation and Interface Properties of Bulk GaAs and Epitaxial-GaAs/Ge Using Atomic Layer Deposited TiAlO Alloy Dielectric. ACS Applied Materials & Interfaces, 2013, 5, 949-957.	4.0	25
30	Synthesis of HPMC stabilized nickel nanoparticles and investigation of their magnetic and catalytic properties. Carbohydrate Polymers, 2013, 98, 80-88.	5.1	25
31	Optimizing the thermal annealing temperature: technological route for tuning the photo-detecting property of p-CuO thin films grown by chemical bath deposition method. Journal of Materials Science: Materials in Electronics, 2018, 29, 12878-12887.	1.1	25
32	Generation of oxygen interstitials with excess in situ Ga doping in chemical bath deposition process for the growth of p-type ZnO nanowires. Journal of Materials Science: Materials in Electronics, 2019, 30, 8796-8804.	1.1	25
33	Selective sensing of dopamine by sodium cholate tailored polypyrrole-silver nanocomposite. Synthetic Metals, 2020, 260, 116296.	2.1	25
34	Investigation of the comparative photovoltaic performance of n-ZnO nanowire/p-Si and n-ZnO nanowire/p-CuO heterojunctions grown by chemical bath deposition method. Optik, 2018, 164, 745-752.	1.4	24
35	Removal of oxygen related defects from chemically synthesized In <sub>2</sub> O <sub>3</sub> thin film doped with Er by spin-on technique. Journal of Alloys and Compounds, 2017, 695, 1260-1265.	2.8	23
36	Design, fabrication and characterisation of strained Si <sup>+</sup> SiGe MOS transistors. IET Circuits, Devices and Systems, 2004, 151, 431.	0.6	22

#	ARTICLE	IF	CITATIONS
37	Analytical modelling of electrical impedance based adulterant sensor for aqueous sucrose solutions. <i>Journal of Electroanalytical Chemistry</i> , 2017, 784, 133-139.	1.9	21
38	Biosurfactant tailored synthesis of porous polypyrrole nanostructures: A facile approach towards CO <sub>2</sub> adsorption and dopamine sensing. <i>Synthetic Metals</i> , 2018, 245, 209-222.	2.1	21
39	Enhanced self-powered ultraviolet photoresponse of ZnO nanowires/p-Si heterojunction by selective in-situ Ga doping. <i>Optical Materials</i> , 2020, 105, 109928.	1.7	21
40	Optimization of Alloy Composition for High-Performance Strained-Si <sub>1-x</sub> Ge N-Channel MOSFETs. <i>IEEE Transactions on Electron Devices</i> , 2004, 51, 1156-1163.	1.6	20
41	Investigation Of The Properties Of Single-step And Double-step Grown ZnO Nanowires Using Chemical Bath Deposition Technique. <i>Advanced Materials Letters</i> , 2016, 7, 610-615.	0.3	20
42	Determination of interface state density of PtSi/strained-Si <sub>1-x</sub> Ge/Si Schottky diodes. <i>Journal of Materials Science: Materials in Electronics</i> , 1998, 9, 403-407.	1.1	19
43	Strained Si MOSFETs on relaxed SiGe platforms: performance and challenges. <i>Solid-State Electronics</i> , 2004, 48, 1407-1416.	0.8	19
44	Defects in 700keV oxygen ion irradiated ZnO. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2013, 311, 20-26.	0.6	18
45	In situ fabrication of polyaniline-silver nanocomposites using soft template of sodium alginate. <i>Journal of Applied Polymer Science</i> , 2013, 129, 3551-3557.	1.3	18
46	A Device Simulation-Based Investigation on Dielectrically Modulated Fringing Field-Effect Transistor for Biosensing Applications. <i>IEEE Sensors Journal</i> , 2017, 17, 1399-1406.	2.4	18
47	Ultrathin Vapor-Liquid-Solid Grown Titanium Dioxide-II Film on Bulk GaAs Substrates for Advanced Metal-Oxide-Semiconductor Device Applications. <i>IEEE Transactions on Electron Devices</i> , 2018, 65, 1466-1472.	1.6	18
48	Impact of surface defects in electron beam evaporated ZnO thin films on FET biosensing characteristics towards reliable PSA detection. <i>Applied Surface Science</i> , 2021, 537, 147895.	3.1	18
49	Control of Self-Heating in Thin Virtual Substrate Strained Si MOSFETs. <i>IEEE Transactions on Electron Devices</i> , 2006, 53, 2296-2305.	1.6	17
50	Modeling of the Threshold Voltage in Strained $\text{Si}_{1-x}\text{Ge}_x/\text{Si}_{1-y}\text{Ge}_y$ CMOS Architectures. <i>IEEE Transactions on Electron Devices</i> , 2007, 54, 3040-3048.	1.6	17
51	Investigation of the electrical switching and rectification characteristics of a single standalone n-type ZnO-nanowire/p-Si junction diode. <i>Applied Physics Letters</i> , 2014, 105, 083106.	1.5	17
52	Ploxamer and gelatin gel guided polyaniline nanofibers: synthesis and characterization. <i>Polymer International</i> , 2014, 63, 1505-1512.	1.6	17
53	Yttrium (Y) doped ZnO nanowire/p-Si heterojunction devices for efficient self-powered UV-sensing applications. <i>Vacuum</i> , 2022, 202, 111214.	1.6	17
54	Impact of virtual substrate growth on high performance strained Si/SiGe double quantum well metal-oxide-semiconductor field-effect transistors. <i>Journal of Applied Physics</i> , 2003, 94, 6855-6863.	1.1	16

#	ARTICLE	IF	CITATIONS
55	High temperature characterization of high- $\hat{\epsilon}$ dielectrics on SiC. Materials Science in Semiconductor Processing, 2006, 9, 1133-1136.	1.9	16
56	Investigation on the Effects of Substrate, Back-Gate Bias and Front-Gate Engineering on the Performance of DMTFET-Based Biosensors. IEEE Sensors Journal, 2020, 20, 10405-10414.	2.4	16
57	Investigating the quasi-oscillatory behavior of electrical parameters with the concentration of D-glucose in aqueous solution. Journal of Electrical Bioimpedance, 2015, 6, 10-17.	0.5	16
58	Structural modification by Li <sup>3+</sup> ion irradiation and intrinsic magnetic properties of un-irradiated and Li <sup>3+</sup> irradiated Zn <sub>0.96</sub> Mn <sub>0.04</sub> O samples. Journal of Alloys and Compounds, 2013, 573, 76-82.	2.8	15
59	Analytical modeling of the lattice and thermo-elastic coefficient mismatch-induced stress into silicon nanowires horizontally embedded on insulator-on-silicon substrates. Superlattices and Microstructures, 2017, 101, 384-396.	1.4	15
60	Effect of annealing on interface state density of Ni-silicided/Si <sub>1-x</sub> Ge <sub>x</sub> Schottky diode. Materials Science in Semiconductor Processing, 2005, 8, 249-253.	1.9	14
61	Modeling and estimation of process-induced stress in the nanowire field-effect-transistors (NW-FETs) on Insulator-on-Silicon substrates with high-k gate-dielectrics. Superlattices and Microstructures, 2016, 98, 194-202.	1.4	14
62	Dielectric properties of plasma membrane: A signature for dyslipidemia in diabetes mellitus. Archives of Biochemistry and Biophysics, 2017, 635, 27-36.	1.4	14
63	Impedimetric Approach for Estimating the Presence of Metanil Yellow in Turmeric Powder from Tunable Capacitance Measurement. Food Analytical Methods, 2019, 12, 1017-1027.	1.3	14
64	Pt/p-strained-Si Schottky diode characteristics at low temperature. Applied Physics Letters, 1997, 71, 942-944.	1.5	13
65	Thermal oxidation of strained Si/SiGe: impact of surface morphology and effect on MOS devices. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2004, 109, 78-84.	1.7	13
66	Contact metallization on strained-Si. Solid-State Electronics, 2004, 48, 1391-1399.	0.8	13
67	Determination of the interface properties of Ni-silicided strained-Si/SiGe heterostructure Schottky diodes using capacitance-voltage technique. Solid-State Electronics, 2006, 50, 1269-1275.	0.8	13
68	Optical property modification of ZnO: Effect of 1.2 MeV Ar irradiation. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 512-515.	0.8	13
69	Characterization of epitaxial GaAs MOS capacitors using atomic layer-deposited TiO <sub>2</sub> /Al <sub>2</sub> O <sub>3</sub> gate stack: study of Ge auto-doping and p-type Zn doping. Nanoscale Research Letters, 2012, 7, 99.	3.1	13
70	Investigating the impact of source/drain doping dependent effective masses on the transport characteristics of ballistic Si-nanowire field-effect-transistors. Journal of Applied Physics, 2014, 115, 124502.	1.1	13
71	Fraction of Insertion of the Channel Fin as Performance Booster in Strain-Engineered p-FinFET Devices With Insulator-on-Silicon Substrate. IEEE Transactions on Electron Devices, 2018, 65, 411-418.	1.6	13
72	On-chip detection and quantification of soap as an adulterant in milk employing electrical impedance spectroscopy., 2018, , .		12

#	ARTICLE	IF	CITATIONS
73	Catalyst-modified vapor-liquid-solid (VLS) growth of single crystalline $\beta$ -Gallium Oxide (Ga <sub>2</sub> O <sub>3</sub> ) thin film on Si-substrate. Superlattices and Microstructures, 2019, 136, 106316.	1.4	12
74	Investigation of the performance of strain-engineered silicon nanowire field effect transistors ( $\beta$ -Si-NWFET) on IOS substrates. Journal of Applied Physics, 2019, 125, .	1.1	12
75	Rapid thermal oxidation of Ge-rich Si <sub>1-x</sub> Ge <sub>x</sub> heterolayers. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2006, 24, 84-90.	0.9	11
76	Temperature-dependent electrical characteristics of CBD/CBD grown n-ZnO nanowire/p-Si heterojunction diodes. Journal Physics D: Applied Physics, 2016, 49, 145105.	1.3	11
77	Evaluation of strained Si/SiGe material for high performance CMOS. Semiconductor Science and Technology, 2004, 19, 707-714.	1.0	10
78	Statistical modelling of the variation in advanced process technologies using a multi-level partitioned response surface approach. IET Circuits, Devices and Systems, 2008, 2, 451.	0.9	10
79	Silver catalyzed growth of In <sub>x</sub> Ga <sub>1-x</sub> As nanowires on Si(001) by metal-organic chemical vapor deposition. CrystEngComm, 2015, 17, 8519-8528.	1.3	10
80	A technique to incorporate both tensile and compressive channel stress in Ge FinFET architecture. Journal of Computational Electronics, 2017, 16, 620-630.	1.3	10
81	On-chip estimation of hematocrit level for diagnosing anemic conditions by Impedimetric techniques. Biomedical Microdevices, 2020, 22, 38.	1.4	10
82	An optoelectronic band-to-band tunnel transistor for near-infrared sensing applications: Device physics, modeling, and simulation. Journal of Applied Physics, 2016, 120, .	1.1	10
83	Schottky diode characteristics of Ti on strained-Si. Solid-State Electronics, 1997, 41, 1891-1893.	0.8	9
84	Extraction of strained-Si metal-oxide-semiconductor field-effect transistor parameters using small signal channel conductance method. Journal of Applied Physics, 2006, 99, 034501.	1.1	9
85	Single In <sub>x</sub> Ga <sub>1-x</sub> As nanowire/p-Si heterojunction based nano-rectifier diode. Nanotechnology, 2017, 28, 385202.	1.3	9
86	Tuning of transport properties of the double-step chemical bath deposition grown zinc oxide (ZnO) nanowires by controlled annealing: An approach to generate p-type ZnO nanowires. Thin Solid Films, 2018, 649, 129-135.	0.8	9
87	Reliability study of ultra-thin gate oxides on strained-Si/SiGe MOS structures. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2006, 135, 203-206.	1.7	8
88	Formation of High-Pressure Phase of Titanium Dioxide (TiO <sub>2</sub> ) Thin Films by Vapor-Liquid-Solid Growth Process on GaAs Substrate. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1800640.	0.8	8
89	Molecular beam epitaxial growth of strained layers on graded for Pt silicide Schottky diodes. Semiconductor Science and Technology, 1998, 13, 214-219.	1.0	7
90	Optimisation of channel thickness in strained Si/SiGe MOSFETs. , 0, , .		7

#	ARTICLE	IF	CITATIONS
91	A Novel Photosensitive Tunneling Transistor for Near-Infrared Sensing Applications: Design, Modeling, and Simulation. IEEE Transactions on Electron Devices, 2015, 62, 1516-1523.	1.6	7
92	Bio-dielectric variation as a signature of shape alteration and lysis of human erythrocytes: An on-chip analysis. , 2018, , .		7
93	Quantitative estimation of soda ash as an adulterant in aqueous sucrose solution by employing electrical impedance and capacitance spectroscopy. Measurement: Journal of the International Measurement Confederation, 2019, 148, 106937.	2.5	7
94	Fabrication and Characterization of Zinc Oxide Nanowire Based Two-electrode Capacitive Biosensors on Flexible Substrates for Estimating Glucose Content in a Sample. Electroanalysis, 2021, 33, 1185-1193.	1.5	7
95	Voltage-Tunable Quantum-Dot Array by Patterned $\text{Ge}$ -Nanowire-Based Metal-Oxide-Semiconductor Devices. Physical Review Applied, 2021, 15, .	1.5	7
96	Copper Oxide Nano-particles Film On Glass By Using Sputter And Chemical Bath Deposition Technique. Advanced Materials Letters, 2016, 7, 600-603.	0.3	7
97	Selective strain incorporation and retention into Si-substrate through VLS growth of $\text{TiO}_2$ nano-islands. Materials Research Express, 2017, 4, 025005.	0.8	6
98	Analytical modeling to design the vertically aligned Si-nanowire metal-oxide-semiconductor photosensors for direct color sensing with high spectral resolution. Physica E: Low-Dimensional Systems and Nanostructures, 2017, 87, 44-50.	1.3	6
99	Low Frequency Impedimetric Cell Counting: Analytical Modeling and Measurements. Irbm, 2020, 41, 23-30.	3.7	6
100	Design and Modeling of High-Efficiency $\text{GaAs}$ -Nanowire Metal-Oxide-Semiconductor Solar Cells beyond the Shockley-Queisser Limit: An NEGF Approach. Physical Review Applied, 2021, 15, .	1.5	6
101	Impact of Ge content on the gate oxide reliability of strained-Si/SiGe MOS devices. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2006, 135, 207-209.	1.7	5
102	Investigation of the Role of Aspect Ratio for the Design of Si-Nanowire Field-Effect-Transistors in Ballistic Regime. Nanoscience and Nanotechnology Letters, 2013, 5, 1087-1090.	0.4	5
103	Investigating the performance of Short Gate Insulator Less Dielectrically Modulated Tunnel Field Effect Transistor based bio-sensors. , 2015, , .		5
104	Unusual impact of electron-phonon scattering in Si nanowire field-effect-transistors: A possible route for energy harvesting. Superlattices and Microstructures, 2016, 97, 548-555.	1.4	5
105	A comparative study on the performance of RESET based electro-thermal process in ring shaped confined $\text{Ge}_2\text{Sb}_2\text{Te}_5$ and $\text{Ge}_1\text{Cu}_2\text{Te}_3$ chalcogenide memory structures. Materials Today Communications, 2017, 13, 325-331.	0.9	5
106	Understanding the electrostatics of top-electrode vertical quantized Si nanowire metal-insulator-semiconductor (MIS) structures for future nanoelectronic applications. Journal of Computational Electronics, 2019, 18, 465-472.	1.3	5
107	A diagrammatic approach of impedimetric phase angle-modulus sensing for identification and quantification of various polar and non-polar/ionic adulterants in milk. LWT - Food Science and Technology, 2021, 136, 110347.	2.5	5
108	Band splitting induced by momentum-quantization in semiconductor nanostructures: Observation of emission lines in Indium Phosphide (InP) nanotubes. Physics Letters, Section A: General, Atomic and Solid State Physics, 2021, 388, 127056.	0.9	5

#	ARTICLE	IF	CITATIONS
109	Prediction of barrier inhomogeneities and carrier transport in Ni-silicided Schottky diode. Applied Surface Science, 2006, 252, 3933-3937.	3.1	4
110	Investigating the impact of thermal annealing on the photovoltaic performance of chemical bath deposited SnO <sub>2</sub> /p-Si heterojunction solar cells. Microsystem Technologies, 2020, 26, 1351-1358.	1.2	4
111	Utilization of nanoporous biosilica of diatoms as a potential source material for fabrication of nanoelectronic device and their characterization. Journal of Applied Phycology, 2020, 32, 3041-3049.	1.5	4
112	Impact of seed layer annealing on the optoelectronic properties of double-step CBD grown n-ZnO nanowires/p-Si heterojunctions. Optik, 2021, 228, 166141.	1.4	4
113	Impact Of Oxygen Diffusion On The Performance Of HfO <sub>2</sub> /GaAs Metal-Oxide-Semiconductor Field-Effect-Transistors. Advanced Materials Letters, 2016, 7, 123-129.	0.3	4
114	Effects of Rapid Thermal Annealing Temperature on Performances of Nanoscale FinFETs. Journal of Semiconductor Technology and Science, 2009, 9, 266-272.	0.1	4
115	Surface roughness and interface engineering for gate dielectrics on strained layers. Journal of Materials Science: Materials in Electronics, 2006, 17, 711-722.	1.1	3
116	Impact of strain on the design of low-power high-speed circuits. , 2007, , .		3
117	Effect of prolonged growth on the chemical bath deposited ZnO nanowires and consequent photovoltaic performance of n-ZnO NWs/p-CuO heterojunction solar cells. Materials Today: Proceedings, 2017, 4, 12496-12499.	0.9	3
118	Efficiency enhancement of p-CuO/n-Si heterojunction solar cells: Impact of annealing on the photovoltaic properties of Vapour-Liquid-Solid (VLS) grown ultra-thin CuO film. Materials Today: Proceedings, 2017, 4, 12694-12697.	0.9	3
119	Bioelectronics at grapheneâ€biofilm interface: Schottky junction formation and capacitive transitions. Medical Devices & Sensors, 2018, 1, e10013.	2.7	3
120	Site disorder and its tailoring in N implanted post-annealed ZnO: Prospects and problems. Materials Science in Semiconductor Processing, 2021, 135, 106068.	1.9	3
121	Effect of silicidation on the electrical characteristics of polycrystalline-SiGe Schottky diode. Thin Solid Films, 2006, 504, 86-90.	0.8	2
122	Doubling speed using strained Si/SiGe CMOS technology. Thin Solid Films, 2006, 508, 338-341.	0.8	2
123	Quantum-mechanical modeling of current-voltage characteristics of Ti-silicided Schottky diodes. Journal of Applied Physics, 2006, 99, 113707.	1.1	2
124	Strained silicon technology. , 2006, , .		2
125	Electrical resistivity peculiarities and positron lifetime in annealed CdO. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 2526-2529.	0.8	2
126	Effect of band alignment on photoluminescence and carrier escape from InP surface quantum dots grown by metalorganic chemical vapor deposition on Si. Journal of Applied Physics, 2014, 115, 043101.	1.1	2



#	ARTICLE	IF	CITATIONS
127	An analysis of the growth of silver catalyzed In <sub>x</sub> Ga <sub>1-x</sub> As nanowires on Si (100) by metal organic chemical vapor deposition. Journal of Applied Physics, 2016, 120, 084309.	1.1	2
128	Self-powered rapid binary UV photoswitching with n-ZnO NW/p-Si photodiode. , 2016, , .		2
129	Design and Investigation on Bioinverter and Bioring-Oscillator for Dielectrically Modulated Biosensing Applications. IEEE Nanotechnology Magazine, 2017, 16, 974-981.	1.1	2
130	Incorporation of Tensile and Compressive Channel Stress by Modulating SiGe Stressor Length in Embedded Source/Drain Si-FinFET Architecture. , 2018, , .		2
131	Investigation of process induced stress in the channel of a SiGe embedded source/drain Ge-FinFET architecture. , 2018, , .		2
132	Comparative investigation of Ga- and Sn-doped ZnO nanowires/p-Si heterojunctions for UV-photo sensing. , 2018, , .		2
133	Study of Optical and Electrical Characteristics of chemically extracted Lotus and Taro Bio-Wax for Hydrophobic Surface Engineering. , 2019, , .		2
134	Graphene-nanoparticle incorporated responsivity tuning of p-CuO/n-Si-based heterojunction photodetectors. Bulletin of Materials Science, 2019, 42, 1.	0.8	2
135	Studying the comparative performance of p-CuO/n-Si thin film hetero-junction solar cells grown by chemical bath deposition and vapor liquid solid processes. , 2016, , 221-224.		2
136	Investigating the Growth-Time Dependent Comparative Performance of Vapour-Liquid-Solid (VLS) Grown p-CuO/n-Si Thin Film Hetero-Junction Solar Cells. Springer Proceedings in Physics, 2017, , 157-164.	0.1	2
137	Photoresponse of Si <sub>1-x</sub> Ge <sub>x</sub> heteroepitaxial p-i-n photodiodes. Solid-State Electronics, 1999, 43, 1741-1745.	0.8	1
138	Ge out-diffusion and its Effect on Electrical Properties in s-Si/SiGe Devices. Materials Research Society Symposia Proceedings, 2006, 912, 1.	0.1	1
139	Effect of channel implantation on the design of high frequency nanoscale n-FinFETs. , 2009, , .		1
140	Optical and electrical characterization of atomic layer deposited (ALD) HfO <sub>2</sub> /p-GaAs MOS capacitors. , 2012, , .		1
141	A study on the performance of stress induced p-channel MOSFETs with embedded Si <sub>1-x</sub> Ge <sub>x</sub> source/drain. , 2012, , .		1
142	Process-induced strain engineering in the silicon-on-sapphire (SOS) fin field effect transistor (FinFET) channels. , 2015, , .		1
143	Performance investigation of n-ZnO nanowire/p-CuO thin film heterojunction solar cell grown by chemical bath deposition and vapour liquid solid technique. , 2015, , .		1
144	Tuning the optical properties of p-CuO films by Graphene incorporation for superior p-CuO/n-Si heterojunction photo-detector performance. , 2017, , .		1

#	ARTICLE	IF	CITATIONS
145	Suppression of Ge-based defects and auto-doping of p-type epitaxial GaAs by employing Al <sub>0.3</sub> Ga <sub>0.7</sub> As bi-layer buffer. Journal of Alloys and Compounds, 2018, 765, 994-1002.	2.8	1
146	Optimization of electron beam dose for reliable nanoscale growth template formation in electron beam lithography system. , 2018, , .		1
147	Post Optimization of a Clock Tree for Dynamic Clock Tree Power Reduction in 45 nm and Below Technology Nodes. Journal of Low Power Electronics, 2014, 10, 32-37.	0.6	1
148	Analyzing The Quasi-oscillatory Nature Of Electrical Parameters With The Concentration Of Sucrose In Aqueous Solution At Room Temperature. Advanced Materials Proceedings, 2016, 1, 25-31.	0.2	1
149	Lac-extract doped polyaniline nano-ribbons as fluorescence sensor and molecular switch for detection of aqueous AsO <sub>4</sub> <sup>3-</sup> and Fe <sup>3+</sup> contaminants. Journal of Photochemistry and Photobiology A: Chemistry, 2022, 431, 114000.	2.0	1
150	Impact of Ge diffusion and wafer cross hatching on strained Si MOSFET electrical parameters. Materials Research Society Symposia Proceedings, 2004, 809, B10.5.1.	0.1	0
151	Electrical characterization of Ni/sub $y$ /(Si/sub $1-x$ /Ge/sub $x$ )/sub $1-y$ //Si/sub $1-x$ /Ge/sub $x$ and NiSi/Si Schottky diodes. , 0, , .		0
152	An investigation of electrical and structural properties of Ni-germanosilicided Schottky diode. Microelectronics Reliability, 2005, 45, 1154-1160.	0.9	0
153	Impact of Interfacial Nitridation of HfO <sub>2</sub> High-k Gate Dielectric Stack on 4H-SiC. Materials Research Society Symposia Proceedings, 2007, 996, 1.	0.1	0
154	A comparative study of surface quantization effects in Si and strained-Si MOS structures with ultrathin gate oxides. , 2009, , .		0
155	Optimization of cross-sectional aspect ratio of ballistic Si nanobar MOSFETs for superior current-voltage characteristics. , 2012, , .		0
156	Investigating the performance of SiGe embedded dual source p-FinFET architecture. Superlattices and Microstructures, 2016, 98, 37-45.	1.4	0
157	Electrical Characterization of n-ZnO NW/p-CuO Thin Film Hetero-Junction Solar Cell Grown by Chemical Bath Deposition and Vapor Liquid Solid Technique with Varying Reaction Time. Springer Proceedings in Physics, 2017, , 165-171.	0.1	0
158	Thermal annealing of CBD-grown p-CuO/n-ZnO seeds and its impact on the performance of p-CuO/n-ZnO nanowire based heterojunction photo-detectors. , 2017, , .		0
159	Chemical bath deposited n-ZnO nanostructures on p-Si substrate for photo-detecting applications: Impact of annealing temperature. , 2018, , .		0
160	Film thickness dependent photovoltaic performance investigation of p-CuO/n-Si heterojunctions grown by chemical bath deposition process. , 2018, , .		0
161	Energy band-structure estimation of semiconductor nanotubes with consideration of momentum space quantization. , 2018, , .		0
162	Investigating the chemical bath deposited n-SnO <sub>2</sub> /p-Si heterojunction devices for optoelectronic applications. , 2019, , .		0

#	ARTICLE	IF	CITATIONS
163	Electrically isolated buried electrode biosensor for detecting folic acid concentration. , 2020, , .		0
164	Entangled electron-photon pair production by channel-exchange in high-energy Compton scattering. Quantum Information Processing, 2021, 20, 1.	1.0	0
165	Extraction of Exact Layer Thickness of Ultra-thin Gate Dielectrics in Nanoscaled CMOS under Strong Inversion. Journal of Semiconductor Technology and Science, 2010, 10, 100-106.	0.1	0
166	Investigation of oxygen vacancy induced resistive switching memory behavior in low-temperature grown n-ZnO/p-Si heterojunction diode. , 2016, , 225-230.		0
167	Analytical Modeling of Vertically Oriented Standalone Si-Nanowire Metal-Oxide-Semiconductor Capacitors for Wavelength Selective Near-Infrared Sensing Applications. Springer Proceedings in Physics, 2017, , 173-179.	0.1	0
168	Designing InP-Nanowire Based Vertical Metal-Oxide-Semiconductor Capacitors for Wavelength Selective Visible Light Sensing. Springer Proceedings in Physics, 2019, , 957-962.	0.1	0
169	Optical Analysis Authenticated Electrical Impedance Based Quantification of Aqueous Naphthalene. Brazilian Journal of Analytical Chemistry, 2019, 5, 30-39.	0.3	0
170	Optical Analysis Authenticated Electrical Impedance Based Quantification of Aqueous Naphthalene. Brazilian Journal of Analytical Chemistry, 2019, 5, 30-39.	0.3	0
171	Investigating the impact of growth time on the electrical performance of vapour-liquid-solid (VLS) grown Ge/n-Si hetero-junction. , 2020, , .		0
172	Growth of ZnSnO <sub>3</sub> nano-crystalloids on Si substrate by employing chemical bath deposition (CBD) technique for self-powered UV-light sensing applications. , 2020, , .		0
173	Comparative study for the impedimetric detection and quantification of adulterants in different bio-consumables. , 2020, , .		0
174	Investigation of density and alignment of ZnO-nanowires grown by double-step chemical bath deposition (CBD/CBD) technique on metallic, insulating and semiconducting substrates. , 2020, , .		0