

Muhammad Mustafa Hussain

List of Publications by Citations

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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.

231
papers

4,193
citations

35
h-index

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g-index

298
ext. papers

5,203
ext. citations

6
avg, IF

6.1
L-index

#	Paper	IF	Citations
231	Memristor-based memory: The sneak paths problem and solutions. <i>Microelectronics Journal</i> , 2013 , 44, 176-183	1.8	251
230	Dipole model explaining high-k/metal gate field effect transistor threshold voltage tuning. <i>Applied Physics Letters</i> , 2008 , 92, 092901	3.4	146
229	CMOS-Technology-Enabled Flexible and Stretchable Electronics for Internet of Everything Applications. <i>Advanced Materials</i> , 2016 , 28, 4219-49	24	134
228	Vertically grown multiwalled carbon nanotube anode and nickel silicide integrated high performance micro-sized (1.25 μ) microbial fuel cell. <i>Nano Letters</i> , 2012 , 12, 791-5	11.5	111
227	Metal/Polymer Based Stretchable Antenna for Constant Frequency Far-Field Communication in Wearable Electronics. <i>Advanced Functional Materials</i> , 2015 , 25, 6565-6575	15.6	105
226	Silicon nanotube field effect transistor with core-shell gate stacks for enhanced high-performance operation and area scaling benefits. <i>Nano Letters</i> , 2011 , 11, 4393-9	11.5	101
225	Review on Physically Flexible Nonvolatile Memory for Internet of Everything Electronics. <i>Electronics (Switzerland)</i> , 2015 , 4, 424-479	2.6	97
224	Paper-based origami flexible and foldable thermoelectric nanogenerator. <i>Nano Energy</i> , 2017 , 31, 296-301	7.1	94
223	Flexible Nanoporous Template for the Design and Development of Reusable Anti-COVID-19 Hydrophobic Face Masks. <i>ACS Nano</i> , 2020 , 14, 7659-7665	16.7	85
222	Soft Actuators for Soft Robotic Applications: A Review. <i>Advanced Intelligent Systems</i> , 2020 , 2, 2000128	6	81
221	Thin PZT-Based Ferroelectric Capacitors on Flexible Silicon for Nonvolatile Memory Applications. <i>Advanced Electronic Materials</i> , 2015 , 1, 1500045	6.4	80
220	Large-scale graphitic thin films synthesized on Ni and transferred to insulators: Structural and electronic properties. <i>Journal of Applied Physics</i> , 2010 , 107, 044310	2.5	77
219	Paper Skin Multisensory Platform for Simultaneous Environmental Monitoring. <i>Advanced Materials Technologies</i> , 2016 , 1, 1600004	6.8	74
218	Transformational silicon electronics. <i>ACS Nano</i> , 2014 , 8, 1468-74	16.7	70
217	High-Performance Silicon Nanotube Tunneling FET for Ultralow-Power Logic Applications. <i>IEEE Transactions on Electron Devices</i> , 2013 , 60, 1034-1039	2.9	69
216	Sustainable design of high-performance micro-sized microbial fuel cell with carbon nanotube anode and air cathode. <i>ACS Nano</i> , 2013 , 7, 6921-7	16.7	65
215	Flexible and semi-transparent thermoelectric energy harvesters from low cost bulk silicon (100). <i>Small</i> , 2013 , 9, 3916-21, 3915	11	61

214	Are nanotube architectures more advantageous than nanowire architectures for field effect transistors?. <i>Scientific Reports</i> , 2012 , 2, 475	4.9	59
213	InAs/Si Hetero-Junction Nanotube Tunnel Transistors. <i>Scientific Reports</i> , 2015 , 5, 9843	4.9	58
212	Ultrastretchable and flexible copper interconnect-based smart patch for adaptive thermotherapy. <i>Advanced Healthcare Materials</i> , 2015 , 4, 665-73	10.1	58
211	Energy harvesting from organic liquids in micro-sized microbial fuel cells. <i>NPG Asia Materials</i> , 2014 , 6, e89-e89	10.3	58
210	Can we build a truly high performance computer which is flexible and transparent?. <i>Scientific Reports</i> , 2013 , 3, 2609	4.9	55
209	Flexible nanoscale high-performance FinFETs. <i>ACS Nano</i> , 2014 , 8, 9850-6	16.7	53
208	Compliant plant wearables for localized microclimate and plant growth monitoring. <i>Npj Flexible Electronics</i> , 2018 , 2,	10.7	50
207	Recyclable Nonfunctionalized Paper-Based Ultralow-Cost Wearable Health Monitoring System. <i>Advanced Materials Technologies</i> , 2017 , 2, 1600228	6.8	47
206	Review Micro and Nano-Engineering Enabled New Generation of Thermoelectric Generator Devices and Applications. <i>ECS Journal of Solid State Science and Technology</i> , 2017 , 6, N3036-N3044	2	46
205	Flexible and biocompatible high-performance solid-state micro-battery for implantable orthodontic system. <i>Npj Flexible Electronics</i> , 2017 , 1,	10.7	45
204	Si/Ge hetero-structure nanotube tunnel field effect transistor. <i>Journal of Applied Physics</i> , 2015 , 117, 014310	13.0	44
203	Flexible and transparent silicon-on-polymer based sub-20 nm non-planar 3D FinFET for brain-architecture inspired computation. <i>Advanced Materials</i> , 2014 , 26, 2794-9	24	43
202	Stretchable helical architecture inorganic-organic hetero thermoelectric generator. <i>Nano Energy</i> , 2016 , 30, 691-699	17.1	42
201	Design and characterization of ultra-stretchable monolithic silicon fabric. <i>Applied Physics Letters</i> , 2014 , 105, 154101	3.4	42
200	Enhanced Performance of MoS Photodetectors by Inserting an ALD-Processed TiO Interlayer. <i>Small</i> , 2018 , 14, 1703176	11	39
199	Study of harsh environment operation of flexible ferroelectric memory integrated with PZT and silicon fabric. <i>Applied Physics Letters</i> , 2015 , 107, 052904	3.4	38
198	From stretchable to reconfigurable inorganic electronics. <i>Extreme Mechanics Letters</i> , 2016 , 9, 245-268	3.9	38
197	Integration of Dual Metal Gate CMOS on High-k Dielectrics Utilizing a Metal Wet Etch Process. <i>Electrochemical and Solid-State Letters</i> , 2005 , 8, G271		37

196	Structural and electrical characteristics of high-k/metal gate metal oxide semiconductor capacitors fabricated on flexible, semi-transparent silicon (100) fabric. <i>Applied Physics Letters</i> , 2013 , 102, 064102	3.4	34
195	The 2021 flexible and printed electronics roadmap. <i>Flexible and Printed Electronics</i> , 2022 , 6, 023001	3.1	33
194	Concentrator photovoltaic module architectures with capabilities for capture and conversion of full global solar radiation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, E8210-E8218	11.5	33
193	Compliant lightweight non-invasive standalone Marine Skin Tagging system. <i>Npj Flexible Electronics</i> , 2018 , 2,	10.7	31
192	Noninvasive Featherlight Wearable Compliant "Marine Skin": Standalone Multisensory System for Deep-Sea Environmental Monitoring. <i>Small</i> , 2019 , 15, e1804385	11	30
191	Flexible High- κ /Metal Gate Metal/Insulator/Metal Capacitors on Silicon (100) Fabric. <i>IEEE Transactions on Electron Devices</i> , 2013 , 60, 3305-3309	2.9	29
190	CMOS Enabled Microfluidic Systems for Healthcare Based Applications. <i>Advanced Materials</i> , 2018 , 30, e1705759	24	28
189	Flexible and Stretchable Electronics for Harsh-Environmental Applications. <i>Advanced Materials Technologies</i> , 2019 , 4, 1900145	6.8	28
188	Printed Organic and Inorganic Electronics: Devices To Systems. <i>IEEE Journal on Emerging and Selected Topics in Circuits and Systems</i> , 2017 , 7, 147-160	5.2	26
187	Recent Progress on Flexible Capacitive Pressure Sensors: From Design and Materials to Applications. <i>Advanced Materials Technologies</i> , 2021 , 6, 2001023	6.8	26
186	(1 1 0) and (1 0 0) Sidewall-oriented FinFETs: A performance and reliability investigation. <i>Solid-State Electronics</i> , 2012 , 78, 2-10	1.7	25
185	Nano-materials enabled thermoelectricity from window glasses. <i>Scientific Reports</i> , 2012 , 2, 841	4.9	25
184	Simplistic graphene transfer process and its impact on contact resistance. <i>Applied Physics Letters</i> , 2013 , 102, 183115	3.4	25
183	Nonplanar Nanoscale Fin Field Effect Transistors on Textile, Paper, Wood, Stone, and Vinyl via Soft Material-Enabled Double-Transfer Printing. <i>ACS Nano</i> , 2015 , 9, 5255-63	16.7	22
182	Simulation Study of a 3-D Device Integrating FinFET and UTBFET. <i>IEEE Transactions on Electron Devices</i> , 2015 , 62, 83-87	2.9	22
181	Mechanical anomaly impact on metal-oxide-semiconductor capacitors on flexible silicon fabric. <i>Applied Physics Letters</i> , 2014 , 104, 234104	3.4	22
180	A Robust Wearable Point-of-Care CNT-Based Strain Sensor for Wirelessly Monitoring Throat-Related Illnesses. <i>Advanced Functional Materials</i> , 2021 , 31, 2103375	15.6	22
179	Metal Wet Etch Process Development for Dual Metal Gate CMOS. <i>Electrochemical and Solid-State Letters</i> , 2005 , 8, G333		21

178	Corrugation Architecture Enabled Ultraflexible Wafer-Scale High-Efficiency Monocrystalline Silicon Solar Cell. <i>Advanced Energy Materials</i> , 2018 , 8, 1702221	21.8	20
177	Gate-First Integration of Tunable Work Function Metal Gates of Different Thicknesses Into High- κ /Metal Gates CMOS FinFETs for Multi- V_{Th} Engineering. <i>IEEE Transactions on Electron Devices</i> , 2010 , 57, 626-631	2.9	20
176	Design Analysis and Human Tests of Foil-Based Wheezing Monitoring System for Asthma Detection. <i>IEEE Transactions on Electron Devices</i> , 2020 , 67, 249-257	2.9	20
175	Soft Actuators for Soft Robotic Applications: A Review. <i>Advanced Intelligent Systems</i> , 2020 , 2, 2070102	6	20
174	Porous Nanomaterials for Ultrabroadband Omnidirectional Anti-Reflection Surfaces with Applications in High Concentration Photovoltaics. <i>Advanced Energy Materials</i> , 2017 , 7, 1601992	21.8	19
173	Corrugation Enabled Asymmetrically Ultrastretchable (95%) Monocrystalline Silicon Solar Cells with High Efficiency (19%). <i>Advanced Energy Materials</i> , 2019 , 9, 1902883	21.8	19
172	Comparison of Uniaxial Wafer Bending and Contact-Etch-Stop-Liner Stress Induced Performance Enhancement on Double-Gate FinFETs. <i>IEEE Electron Device Letters</i> , 2008 , 29, 480-482	4.4	19
171	Towards neuromorphic electronics: Memristors on foldable silicon fabric. <i>Microelectronics Journal</i> , 2014 , 45, 1392-1395	1.8	18
170	Hot carrier degradation in HfSiON SiN fin shaped field effect transistor with different substrate orientations. <i>Journal of Vacuum Science & Technology B</i> , 2009 , 27, 468		18
169	Thermal annealing effects on a representative high- κ /metal film stack. <i>Semiconductor Science and Technology</i> , 2006 , 21, 1437-1440	1.8	18
168	Mechanical response of spiral interconnect arrays for highly stretchable electronics. <i>Applied Physics Letters</i> , 2017 , 111, 214102	3.4	17
167	A thermoelectric generator using loop heat pipe and design match for maximum-power generation. <i>Applied Thermal Engineering</i> , 2015 , 91, 1082-1091	5.8	16
166	Free-Form Flexible Lithium-Ion Microbattery. <i>IEEE Nanotechnology Magazine</i> , 2016 , 15, 402-408	2.6	16
165	Wavy channel transistor for area efficient high performance operation. <i>Applied Physics Letters</i> , 2013 , 102, 134109	3.4	16
164	Flexible semi-transparent silicon (100) fabric with high- κ /metal gate devices. <i>Physica Status Solidi - Rapid Research Letters</i> , 2013 , 7, 187-191	2.5	16
163	Design and analysis of compact ultra energy-efficient logic gates using laterally-actuated double-electrode NEMS 2010 ,		16
162	The progress and challenges of threshold voltage control of high- κ /metal-gated devices for advanced technologies (Invited Paper). <i>Microelectronic Engineering</i> , 2009 , 86, 1722-1727	2.5	16
161	A Novel Electrode-Induced Strain Engineering for High Performance SOI FinFET utilizing Si (1channel for Both N and PMOSFETs 2006 ,		16

160	Effects of metal gate-induced strain on the performance of metal-oxide-semiconductor field effect transistors with titanium nitride gate electrode and hafnium oxide dielectric. <i>Applied Physics Letters</i> , 2007 , 91, 033511	3.4	16
159	Plasma-Induced Damage in High- κ /Metal Gate Stack Dry Etch. <i>IEEE Electron Device Letters</i> , 2006 , 27, 972-974	4.4	16
158	Stretchable and foldable silicon-based electronics. <i>Applied Physics Letters</i> , 2017 , 110, 134103	3.4	15
157	Functional integrity of flexible n-channel metal oxide semiconductor field-effect transistors on a reversibly bistable platform. <i>Applied Physics Letters</i> , 2015 , 107, 174101	3.4	15
156	High performance high- γ metal gate complementary metal oxide semiconductor circuit element on flexible silicon. <i>Applied Physics Letters</i> , 2016 , 108, 094102	3.4	15
155	Expandable Polymer Enabled Wirelessly Destructible High-Performance Solid State Electronics. <i>Advanced Materials Technologies</i> , 2017 , 2, 1600264	6.8	14
154	Deterministic Integration of Out-of-Plane Sensor Arrays for Flexible Electronic Applications. <i>Small</i> , 2016 , 12, 5141-5145	11	14
153	Electrical Analysis of High Dielectric Constant Insulator and Metal Gate Metal Oxide Semiconductor Capacitors on Flexible Bulk Mono-Crystalline Silicon. <i>IEEE Transactions on Reliability</i> , 2015 , 64, 579-585	4.6	14
152	Paper as a Substrate and an Active Material in Paper Electronics. <i>ACS Applied Electronic Materials</i> , 2021 , 3, 30-52	4	14
151	Additive advantage in characteristics of MIMCAPs on flexible silicon (100) fabric with release-first process. <i>Physica Status Solidi - Rapid Research Letters</i> , 2014 , 8, 163-166	2.5	13
150	Graphene-Based Flexible Micrometer-Sized Microbial Fuel Cell. <i>Energy Technology</i> , 2013 , 1, 648-652	3.5	13
149	Low-voltage back-gated atmospheric pressure chemical vapor deposition based graphene-stripped channel transistor with high- γ dielectric showing room-temperature mobility $> 11,000 \text{ cm}^2/\text{Vs}$. <i>ACS Nano</i> , 2013 , 7, 5818-23	16.7	13
148	2011 ,		13
147	Multisensory graphene-skin for harsh-environment applications. <i>Applied Physics Letters</i> , 2020 , 117, 074101	9.4	13
146	Freeform Compliant CMOS Electronic Systems for Internet of Everything Applications. <i>IEEE Transactions on Electron Devices</i> , 2017 , 64, 1894-1905	2.9	12
145	Impact of Physical Deformation on Electrical Performance of Paper-Based Sensors. <i>IEEE Transactions on Electron Devices</i> , 2017 , 64, 2022-2029	2.9	12
144	Ultraflexible Corrugated Monocrystalline Silicon Solar Cells with High Efficiency (19%), Improved Thermal Performance, and Reliability Using Low-Cost Laser Patterning. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 2269-2275	9.5	12
143	Diaphragm shape effect on the performance of foil-based capacitive pressure sensors. <i>AIP Advances</i> , 2020 , 10, 015009	1.5	11

142	Out-of-Plane Strain Effects on Physically Flexible FinFET CMOS. <i>IEEE Transactions on Electron Devices</i> , 2016 , 63, 2657-2664	2.9	11
141	High-Performance Flexible Magnetic Tunnel Junctions for Smart Miniaturized Instruments. <i>Advanced Engineering Materials</i> , 2018 , 20, 1800471	3.5	11
140	Flexible and Stretchable Electronics [Progress, Challenges, and Prospects. <i>Electrochemical Society Interface</i> , 2018 , 27, 65-69	3.6	11
139	In-plane and out-of-plane structural response of spiral interconnects for highly stretchable electronics. <i>Journal of Applied Physics</i> , 2018 , 124, 034905	2.5	10
138	Stable MoS2 Field-Effect Transistors Using TiO2 Interfacial Layer at Metal/MoS2 Contact. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2017 , 214, 1700534	1.6	10
137	Exploring SiSn as a performance enhancing semiconductor: A theoretical and experimental approach. <i>Journal of Applied Physics</i> , 2014 , 116, 224506	2.5	10
136	Silicon fabric for multi-functional applications 2013 ,		10
135	Acetic acid-confined synthesis of uniform three-dimensional (3D) bismuth telluride nanocrystals consisting of few-quintuple-layer nanoplatelets. <i>Chemical Communications</i> , 2011 , 47, 12131-3	5.8	10
134	Metal Wet Etch Issues and Effects in Dual Metal Gate Stack Integration. <i>Journal of the Electrochemical Society</i> , 2006 , 153, G389	3.9	10
133	Enhanced cooling in mono-crystalline ultra-thin silicon by embedded micro-air channels. <i>AIP Advances</i> , 2015 , 5, 127115	1.5	9
132	Room to High Temperature Measurements of Flexible SOI FinFETs With Sub-20-nm Fins. <i>IEEE Transactions on Electron Devices</i> , 2014 , 61, 3978-3984	2.9	9
131	Low-cost high-quality crystalline germanium based flexible devices. <i>Physica Status Solidi - Rapid Research Letters</i> , 2014 , 08, 794-800	2.5	9
130	Zinc oxide integrated area efficient high output low power wavy channel thin film transistor. <i>Applied Physics Letters</i> , 2013 , 103, 224101	3.4	9
129	Nuclear Magnetic Resonance Study of Nanoscale Ionic Materials. <i>Electrochemical and Solid-State Letters</i> , 2010 , 13, K87		9
128	Strain-Induced Rolled Thin Films for Lightweight Tubular Thermoelectric Generators. <i>Advanced Materials Technologies</i> , 2018 , 3, 1700192	6.8	9
127	Highly Manufacturable Deep (Sub-Millimeter) Etching Enabled High Aspect Ratio Complex Geometry Lego-Like Silicon Electronics. <i>Small</i> , 2017 , 13, 1601801	11	8
126	Water soluble nano-scale transient material germanium oxide for zero toxic waste based environmentally benign nano-manufacturing. <i>Applied Physics Letters</i> , 2017 , 110, 074103	3.4	8
125	Bi-Facial Substrates Enabled Heterogeneous Multi-Dimensional Integrated Circuits (MD-IC) for Internet of Things (IoT) Applications. <i>Advanced Engineering Materials</i> , 2019 , 21, 1900043	3.5	8

124	Ultra-stretchable Archimedean interconnects for stretchable electronics. <i>Extreme Mechanics Letters</i> , 2018 , 24, 6-13	3.9	8
123	Tin: An unlikely ally for silicon field effect transistors?. <i>Physica Status Solidi - Rapid Research Letters</i> , 2014 , 8, 332-335	2.5	8
122	A new paradigm in the design of energy-efficient digital circuits using laterally-actuated double-gate NEMs 2010 ,		8
121	Design criteria for XeF ₂ enabled deterministic transformation of bulk silicon (100) into flexible silicon layer. <i>AIP Advances</i> , 2016 , 6, 075010	1.5	8
120	Wavy Architecture Thin-Film Transistor for Ultrahigh Resolution Flexible Displays. <i>Small</i> , 2018 , 14, 1703200	2.0	8
119	3D Printed Robotic Assembly Enabled Reconfigurable Display with Higher Resolution. <i>Advanced Materials Technologies</i> , 2018 , 3, 1800344	6.8	8
118	Flexible Lightweight CMOS-Enabled Multisensory Platform for Plant Microclimate Monitoring. <i>IEEE Transactions on Electron Devices</i> , 2018 , 1-7	2.9	8
117	An inclinometer using movable electrode in a parallel plate capacitive structure. <i>AIP Advances</i> , 2019 , 9, 045118	1.5	7
116	Decal Electronics: Printable Packaged with 3D Printing High-Performance Flexible CMOS Electronic Systems. <i>Advanced Materials Technologies</i> , 2017 , 2, 1600175	6.8	7
115	Post-CMOS FinFET Integration of Bismuth Telluride and Antimony Telluride Thin-Film-Based Thermoelectric Devices on Si Substrate. <i>IEEE Electron Device Letters</i> , 2013 , 34, 1334-1336	4.4	7
114	Deposition thickness based high-throughput nano-imprint template. <i>Microelectronic Engineering</i> , 2007 , 84, 594-598	2.5	7
113	A Review of the Real-Time Monitoring of Fluid-Properties in Tubular Architectures for Industrial Applications. <i>Sensors</i> , 2020 , 20,	3.8	7
112	Acceleration Sensors: Sensing Mechanisms, Emerging Fabrication Strategies, Materials, and Applications. <i>ACS Applied Electronic Materials</i> , 2021 , 3, 504-531	4	7
111	Honeycomb-serpentine silicon platform for reconfigurable electronics. <i>Applied Physics Letters</i> , 2019 , 115, 112105	3.4	6
110	Do-It-Yourself integration of a paper sensor in a smart lid for medication adherence. <i>Flexible and Printed Electronics</i> , 2019 , 4, 025001	3.1	6
109	Metal coated polymer and paper-based cantilever design and analysis for acoustic pressure sensing. <i>AIP Advances</i> , 2020 , 10, 055112	1.5	6
108	Enhanced Photoresponse of WS ₂ Photodetectors through Interfacial Defect Engineering Using a TiO ₂ Interlayer. <i>ACS Applied Electronic Materials</i> , 2020 , 2, 838-845	4	6
107	Modular Lego-Electronics. <i>Advanced Materials Technologies</i> , 2018 , 3, 1700147	6.8	6

106	Zinc Oxide Integrated Wavy Channel Thin-Film Transistor-Based High-Performance Digital Circuits. <i>IEEE Electron Device Letters</i> , 2016 , 37, 193-196	4.4	6
105	Manufacturing of Thermoelectric Nanomaterials (Bi _{0.4} Sb _{1.6} Te ₃ /Bi _{1.75} Te _{3.25}) and Integration into Window Glasses for Thermoelectricity Generation. <i>Energy Technology</i> , 2014 , 2, 292-299	3.5	6
104	Area and Energy Efficient High-Performance ZnO Wavy Channel Thin-Film Transistor. <i>IEEE Transactions on Electron Devices</i> , 2014 , 61, 3223-3228	2.9	6
103	Wavy channel thin film transistor architecture for area efficient, high performance and low power displays. <i>Physica Status Solidi - Rapid Research Letters</i> , 2014 , 8, 248-251	2.5	6
102	Thermal recrystallization of physical vapor deposition based germanium thin films on bulk silicon (100). <i>Physica Status Solidi - Rapid Research Letters</i> , 2013 , 7, 966-970	2.5	6
101	Deposition Method-Induced Stress Effect on Ultrathin Titanium Nitride Etch Characteristics. <i>Electrochemical and Solid-State Letters</i> , 2006 , 9, G361		6
100	Heterogeneous Cubic Multidimensional Integrated Circuit for Water and Food Security in Fish Farming Ponds. <i>Small</i> , 2020 , 16, e1905399	11	6
99	Transformational electronics are now reconfiguring 2015 ,		5
98	Three-terminal nanoelectromechanical switch based on tungsten nitride--an amorphous metallic material. <i>Nanotechnology</i> , 2016 , 27, 035202	3.4	5
97	In-Line Tunnel Field Effect Transistor: Drive Current Improvement. <i>IEEE Journal of the Electron Devices Society</i> , 2018 , 6, 721-725	2.3	5
96	2019 ,		5
95	Thermoelectricity from wasted heat of integrated circuits. <i>Applied Nanoscience (Switzerland)</i> , 2013 , 3, 175-178	3.3	5
94	Chemical vapor deposition based tungsten disulfide (WS ₂) thin film transistor 2013 ,		5
93	Out-of-plane strain effect on silicon-based flexible FinFETs 2015 ,		5
92	High temperature study of flexible silicon-on-insulator fin field-effect transistors. <i>Applied Physics Letters</i> , 2014 , 105, 133509	3.4	5
91	Measurement of high-k and metal film thickness on FinFET sidewalls using scatterometry 2008 ,		5
90	Atomic force microscope study of three-dimensional nanostructure sidewalls. <i>Nanotechnology</i> , 2007 , 18, 335303	3.4	5
89	Pressure-Driven Two-Input 3D Microfluidic Logic Gates. <i>Advanced Science</i> , 2020 , 7, 1903027	13.6	5

88	Fully spherical stretchable silicon photodiodes array for simultaneous 360 imaging. <i>Applied Physics Letters</i> , 2018 , 113, 134101	3.4	5
87	2019 ,		4
86	Wavy Channel TFT-Based Digital Circuits. <i>IEEE Transactions on Electron Devices</i> , 2016 , 63, 1550-1556	2.9	4
85	Nano-scale transistors for interfacing with brain: design criteria, progress and prospect. <i>Nanotechnology</i> , 2019 , 30, 442001	3.4	4
84	Design, mechanics, and operation of spiral-interconnect based networked sensor for stretchable electronics. <i>Applied Physics Letters</i> , 2019 , 115, 181904	3.4	4
83	(Invited) Wavy Channel TFT Architecture for High Performance Oxide Based Displays. <i>ECS Transactions</i> , 2015 , 67, 191-198	1	4
82	The Role of Microfabrication and Nanotechnology in the Development of Microbial Fuel Cells. <i>Energy Technology</i> , 2015 , 3, 996-1006	3.5	4
81	2012 ,		4
80	Effects of ALD TiN Metal Gate Thickness on Metal Gate /High-k Dielectric SOI FinFET Characteristics. <i>SOI Conference, Proceedings of the IEEE International</i> , 2006 ,		4
79	Expandable Polymer Assisted Wearable Personalized Medicinal Platform. <i>Advanced Materials Technologies</i> , 2020 , 5, 2000411	6.8	4
78	A CMOS-compatible large-scale monolithic integration of heterogeneous multi-sensors on flexible silicon for IoT applications 2016 ,		4
77	AI Powered Unmanned Aerial Vehicle for Payload Transport Application 2019 ,		4
76	Low-cost foil/paper based touch mode pressure sensing element as artificial skin module for prosthetic hand 2020 ,		3
75	Impact of Nickel Silicide Rear Metallization on the Series Resistance of Crystalline Silicon Solar Cells. <i>Energy Technology</i> , 2018 , 6, 1627-1632	3.5	3
74	Personalized Healthcare: CMOS Enabled Microfluidic Systems for Healthcare Based Applications (Adv. Mater. 16/2018). <i>Advanced Materials</i> , 2018 , 30, 1870111	24	3
73	Solid state MEMS devices on flexible and semi-transparent silicon (100) platform 2014 ,		3
72	FDM 3D printed coffee glove embedded with flexible electronic 2017 ,		3
71	SiSn diodes: Theoretical analysis and experimental verification. <i>Applied Physics Letters</i> , 2015 , 107, 082111	3.4	3

70	Ultra-high density out-of-plane strain sensor 3D architecture based on sub-20 nm PMOS FinFET 2015 ,		3
69	CMOS compatible fabrication of flexible and semi-transparent FeRAM on ultra-thin bulk monocrystalline silicon (100) fabric 2014 ,		3
68	CMOS compatible route for GaAs based large scale flexible and transparent electronics 2014 ,		3
67	Role of metal/silicon semiconductor contact engineering for enhanced output current in micro-sized microbial fuel cells. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2014 , 211, 551-554	1.6	3
66	Atmospheric pressure chemical vapor deposition (APCVD) grown bi-layer graphene transistor characteristics at high temperature. <i>Physica Status Solidi - Rapid Research Letters</i> , 2014 , 8, 621-624	2.5	3
65	Exploring SiSn as channel material for LSTP device applications 2013 ,		3
64	Contact materials for nanowire devices and nanoelectromechanical switches. <i>MRS Bulletin</i> , 2011 , 36, 106-111	3.2	3
63	A novel damage-free high-k etch technique using neutral beam-assisted atomic layer etching (NBALE) for sub-32nm technology node low power metal gate/high-k dielectric CMOSFETs 2009 ,		3
62	High Performance pMOSFETs Using Si/Si _{1-x} Gex/Si Quantum Wells with High-k/Metal Gate Stacks and Additive Uniaxial Strain for 22 nm Technology Node 2007 ,		3
61	Toward nanotechnology-enabled face masks against SARS-CoV-2 and pandemic respiratory diseases. <i>Nanotechnology</i> , 2021 , 33,	3.4	3
60	Fabrication of Three-Dimensional MIS Nano-Capacitor Based on Nanoimprinted Single Crystal Silicon Nanowire Arrays. <i>Micro and Nanosystems</i> , 2012 , 4, 333-338	0.6	3
59	Flexible and stretchable inorganic solar cells: Progress, challenges, and opportunities. <i>MRS Energy & Sustainability</i> , 2020 , 7, 1	2.2	3
58	Design Criteria for Horseshoe and Spiral-Based Interconnects for Highly Stretchable Electronic Devices. <i>Advanced Functional Materials</i> , 2021 , 31, 2007445	15.6	3
57	Do-It-Yourself (DIY) based Flexible Paper Sensor Based Electronic System for Pill Health Monitoring 2018 ,		3
56	Solution processes for ultrabroadband and omnidirectional graded-index glass lenses with near-zero reflectivity in high concentration photovoltaics. <i>Scientific Reports</i> , 2018 , 8, 14907	4.9	3
55	Contact resistance reduction of ZnO thin film transistors (TFTs) with saw-shaped electrode. <i>Nanotechnology</i> , 2018 , 29, 325202	3.4	3
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