## Muhammad Mustafa Hussain

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/8750420/publications.pdf Version: 2024-02-01



#	Article	IF	CITATIONS
1	Toward nanotechnology-enabled face masks against SARS-CoV-2 and pandemic respiratory diseases. Nanotechnology, 2022, 33, 062006.	2.6	14
2	Mechanically flexible viscosity sensor for <scp>realâ€ŧime</scp> monitoring of tubular architectures for industrial applications. Engineering Reports, 2021, 3, e12315.	1.7	6
3	Paper as a Substrate and an Active Material in Paper Electronics. ACS Applied Electronic Materials, 2021, 3, 30-52.	4.3	48
4	Design Criteria for Horseshoe and Spiralâ€Based Interconnects for Highly Stretchable Electronic Devices. Advanced Functional Materials, 2021, 31, 2007445.	14.9	12
5	Acceleration Sensors: Sensing Mechanisms, Emerging Fabrication Strategies, Materials, and Applications. ACS Applied Electronic Materials, 2021, 3, 504-531.	4.3	35
6	Stretchable Electronic Devices: Design Criteria for Horseshoe and Spiralâ€Based Interconnects for Highly Stretchable Electronic Devices (Adv. Funct. Mater. 7/2021). Advanced Functional Materials, 2021, 31, 2170048.	14.9	0
7	Recent Progress on Flexible Capacitive Pressure Sensors: From Design and Materials to Applications. Advanced Materials Technologies, 2021, 6, 2001023.	5.8	131
8	Flexible Capacitive Pressure Sensors: Recent Progress on Flexible Capacitive Pressure Sensors: From Design and Materials to Applications (Adv. Mater. Technol. 4/2021). Advanced Materials Technologies, 2021, 6, 2170023.	5.8	2
9	A Robust Wearable Pointâ€ofâ€Care CNTâ€Based Strain Sensor for Wirelessly Monitoring Throatâ€Related Illnesses. Advanced Functional Materials, 2021, 31, 2103375.	14.9	67
10	The 2021 flexible and printed electronics roadmap. Flexible and Printed Electronics, 2021, 6, 023001.	2.7	100
11	Wrinkeld Polydimethylsiloxane for Enahnced Light Trapping and Anti-Reflection in Flexible Corrugated Silicon Solar Cells. , 2021, , .		0
12	3D Heterogeneous Integration Strategy for Physically Flexible CMOS Electronic Systems. , 2021, , .		3
13	Mechanical reliability of self-similar serpentine interconnect for fracture-free stretchable electronic devices. Journal of Applied Physics, 2021, 130, .	2.5	4
14	Benchmarking Silicon FinFET With the Carbon Nanotube and 2D-FETs for Advanced Node CMOS Logic Application. IEEE Transactions on Electron Devices, 2021, 68, 3643-3648.	3.0	7
15	Solar Powered Small Unmanned Aerial Vehicles: A Review. Energy Technology, 2021, 9, 2100587.	3.8	13
16	Mechanically Flexible Fluid Flow Sensor for Macro-Tubular Architectures. , 2021, 10, .		0
17	Heterogeneous Cubic Multidimensional Integrated Circuit for Water and Food Security in Fish Farming Ponds. Small, 2020, 16, e1905399.	10.0	11
18	Design Analysis and Human Tests of Foil-Based Wheezing Monitoring System for Asthma Detection. IEEE Transactions on Electron Devices, 2020, 67, 249-257.	3.0	32

#	Article	IF	CITATIONS
19	Pressureâ€Driven Twoâ€Input 3D Microfluidic Logic Gates. Advanced Science, 2020, 7, 1903027.	11.2	12
20	Ultraflexible Corrugated Monocrystalline Silicon Solar Cells with High Efficiency (19%), Improved Thermal Performance, and Reliability Using Low-Cost Laser Patterning. ACS Applied Materials & Interfaces, 2020, 12, 2269-2275.	8.0	20
21	Personalized Healthcare: Expandable Polymer Assisted Wearable Personalized Medicinal Platform (Adv. Mater. Technol. 10/2020). Advanced Materials Technologies, 2020, 5, 2070064.	5.8	0
22	Flexible Highâ€Efficiency Corrugated Monocrystalline Silicon Solar Cells for Application in Small Unmanned Aerial Vehicles for Payload Transportation. Energy Technology, 2020, 8, 2000670.	3.8	4
23	A Review of the Real-Time Monitoring of Fluid-Properties in Tubular Architectures for Industrial Applications. Sensors, 2020, 20, 3907.	3.8	19
24	Multisensory graphene-skin for harsh-environment applications. Applied Physics Letters, 2020, 117, .	3.3	24
25	Soft Actuators for Soft Robotic Applications: A Review. Advanced Intelligent Systems, 2020, 2, 2070102.	6.1	70
26	Multi-Dimensional Integration and Packaging of Devices for Internet-of-Things Applications. , 2020, , .		1
27	Soft Actuators for Soft Robotic Applications: A Review. Advanced Intelligent Systems, 2020, 2, 2000128.	6.1	244
28	Expandable Polymer Assisted Wearable Personalized Medicinal Platform. Advanced Materials Technologies, 2020, 5, 2000411.	5.8	6
29	Flexible and stretchable inorganic solar cells: Progress, challenges, and opportunities. MRS Energy & Sustainability, 2020, 7, 1.	3.0	16
30	Symmetrical orientation of spiral-interconnects for high mechanical stability of stretchable electronics. , 2020, , .		1
31	Ultrastretchable Corrugated Monocrystalline Silicon Solar Cells with Interdigitated Back Contacts. , 2020, , .		0
32	Stress concentration analysis and fabrication of silicon (100) based ultra-stretchable structures with parylene coating. Extreme Mechanics Letters, 2020, 41, 101052.	4.1	3
33	Metal coated polymer and paper-based cantilever design and analysis for acoustic pressure sensing. AIP Advances, 2020, 10, .	1.3	11
34	Flexible Nanoporous Template for the Design and Development of Reusable Anti-COVID-19 Hydrophobic Face Masks. ACS Nano, 2020, 14, 7659-7665.	14.6	133
35	Textile Electronics–Prospects, Advances, Challenges and Opportunities. MRS Advances, 2020, 5, 2359-2379.	0.9	3
36	Nature-inspired spherical silicon solar cell for three-dimensional light harvesting, improved dust and thermal management. MRS Communications, 2020, 10, 391-397.	1.8	8

#	Article	IF	CITATIONS
37	Low-cost foil/paper based touch mode pressure sensing element as artificial skin module for prosthetic hand. , 2020, , .		12
38	Enhanced Photoresponse of WS <sub>2</sub> Photodetectors through Interfacial Defect Engineering Using a TiO <sub>2</sub> Interlayer. ACS Applied Electronic Materials, 2020, 2, 838-845.	4.3	17
39	Water Quality Monitoring: Heterogeneous Cubic Multidimensional Integrated Circuit for Water and Food Security in Fish Farming Ponds (Small 4/2020). Small, 2020, 16, 2070023.	10.0	0
40	Diaphragm shape effect on the performance of foil-based capacitive pressure sensors. AIP Advances, 2020, 10, .	1.3	27
41	Mirror-symmetry controlled mechanical response of interconnects for stretchable electronics. Extreme Mechanics Letters, 2020, 35, 100639.	4.1	4
42	Large-Scale Spherical Silicon Solar Cell for Advanced Light Management. , 2020, , .		0
43	Ultra-stretchable Silicon Solar Cells for Standalone Wearable and Foldable Electronics Application. , 2020, , .		0
44	Polymer/paper-based double touch mode capacitive pressure sensing element for wireless control of robotic arm. , 2020, , .		6
45	Crystalline solar cells with atypical architecture for wide ranging deployment (Conference) Tj ETQq1 1 0.784314	rgBT /Over	lock 10 Tf 5
46	Corrugation Enabled Ultraflexible Monocrystalline Silicon Solar Cells with Interdigitated Back Contacts. , 2020, , .		0
47	3D Coin Integration for Realizing Next-Generation Flexible Electronic Systems. , 2020, , .		1
48	Integration Strategy for Standalone Compliant Interactive Systems for Add-on IoT based Electronics. , 2019, , .		0
49	IoT enabled Plant Sensing Systems for Small and Large Scale Automated Horticultural Monitoring. , 2019, , .		10
50	Flexible and Stretchable Electronics for Harshâ€Environmental Applications. Advanced Materials Technologies, 2019, 4, 1900145.	5.8	51
51	Nano-scale transistors for interfacing with brain: design criteria, progress and prospect. Nanotechnology, 2019, 30, 442001.	2.6	5
52	Flexible tag design for semi-continuous wireless data acquisition from marine animals. Flexible and Printed Electronics, 2019, 4, 035006.	2.7	7
53	Corrugation Enabled Asymmetrically Ultrastretchable (95%) Monocrystalline Silicon Solar Cells with High Efficiency (19%). Advanced Energy Materials, 2019, 9, 1902883.	19.5	31

Flexible Electronics: Flexible and Stretchable Electronics for Harsh $\hat{a} \in \mathbb{E}$ nvironmental Applications (Adv.) Tj ETQq0 0 0. rgBT /Overlock 10 Tf

#	Article	IF	CITATIONS
55	Design, mechanics, and operation of spiral-interconnect based networked sensor for stretchable electronics. Applied Physics Letters, 2019, 115, .	3.3	8
56	Marine IoT: non-invasive wearable multisensory platform for oceanic environment monitoring. , 2019, ,		9
57	Low-cost Foil based Wearable Sensory System for Respiratory Sound Analysis to Monitor Wheezing. , 2019, , .		2
58	Honeycomb-serpentine silicon platform for reconfigurable electronics. Applied Physics Letters, 2019, 115, 112105.	3.3	7
59	In-plane deformation mechanics of highly stretchable Archimedean interconnects. AIP Advances, 2019, 9, .	1.3	6
60	Noninvasive Featherlight Wearable Compliant "Marine Skin― Standalone Multisensory System for Deep‧ea Environmental Monitoring. Small, 2019, 15, e1804385.	10.0	49
61	An inclinometer using movable electrode in a parallel plate capacitive structure. AIP Advances, 2019, 9,	1.3	9
62	Biâ€Facial Substrates Enabled Heterogeneous Multiâ€Dimensional Integrated Circuits (MDâ€IC) for Internet of Things (IoT) Applications. Advanced Engineering Materials, 2019, 21, 1900043.	3.5	10
63	Do-It-Yourself integration of a paper sensor in a smart lid for medication adherence. Flexible and Printed Electronics, 2019, 4, 025001.	2.7	7
64	High-Efficiency Corrugated Monocrystalline Silicon Solar Cells with Multi-Directional Flexing Capabilities. , 2019, , .		3
65	Al Powered Unmanned Aerial Vehicle for Payload Transport Application. , 2019, , .		8
66	Design enabled stretchable electronics: gap mitigation, mirroring and reconfiguration. , 2019, , .		0
67	Heterogeneous Multi-Dimensional Integrated Circuit for Internet-of-Things Application. , 2019, , .		1
68	CMOS Enabled Microfluidic Systems for Healthcare Based Applications. Advanced Materials, 2018, 30, e1705759.	21.0	46
69	Photonics: Enhanced Performance of MoS <sub>2</sub> Photodetectors by Inserting an ALDâ€Processed TiO <sub>2</sub> Interlayer (Small 5/2018). Small, 2018, 14, 1870022.	10.0	2
70	Thermoelectric Generators: Strainâ€Induced Rolled Thin Films for Lightweight Tubular Thermoelectric Generators (Adv. Mater. Technol. 1/2018). Advanced Materials Technologies, 2018, 3, 1870002.	5.8	0
71	Corrugation Architecture Enabled Ultraflexible Waferâ€Scale Highâ€Efficiency Monocrystalline Silicon Solar Cell. Advanced Energy Materials, 2018, 8, 1702221.	19.5	29
72	Impact of Nickel Silicide Rear Metallization on the Series Resistance of Crystalline Silicon Solar Cells. Energy Technology, 2018, 6, 1627-1632.	3.8	4

#	Article	IF	CITATIONS
73	Flexible Displays: Wavy Architecture Thinâ€Film Transistor for Ultrahigh Resolution Flexible Displays (Small 1/2018). Small, 2018, 14, 1870002.	10.0	2
74	Compliant lightweight non-invasive standalone "Marine Skin―tagging system. Npj Flexible Electronics, 2018, 2, .	10.7	50
75	Personalized Healthcare: CMOS Enabled Microfluidic Systems for Healthcare Based Applications (Adv.) Tj ETQq1 1	0.784314 21.0	∔rgBT /Over
76	Solar Cells: Corrugation Architecture Enabled Ultraflexible Waferâ€Scale Highâ€Efficiency Monocrystalline Silicon Solar Cell (Adv. Energy Mater. 12/2018). Advanced Energy Materials, 2018, 8, 1870055.	19.5	0
77	Modular Legoâ€Electronics. Advanced Materials Technologies, 2018, 3, 1700147.	5.8	9
78	Strainâ€Induced Rolled Thin Films for Lightweight Tubular Thermoelectric Generators. Advanced Materials Technologies, 2018, 3, 1700192.	5.8	14
79	Enhanced Performance of MoS <sub>2</sub> Photodetectors by Inserting an ALDâ€Processed TiO <sub>2</sub> Interlayer. Small, 2018, 14, 1703176.	10.0	51
80	Wavy Architecture Thinâ€Film Transistor for Ultrahigh Resolution Flexible Displays. Small, 2018, 14, 1703200.	10.0	15
81	Understanding the Stretching Mechanism of Spiral-Island Configurations for Highly Stretchable Elecronics. , 2018, , .		0
82	Integration Strategy for Heterogeneously Integrated Wearable and Implantable Electronics. , 2018, , .		0
83	Manufacturable Heterogeneous Integration for Flexible CMOS Electronics. , 2018, , .		1
84	Do-It-Yourself (DIY) based Flexible Paper Sensor Based Electronic System for Pill Health Monitoring. , 2018, , .		3
85	Corrugation Architecture Enabled Ultra-Flexible Mono-Crystalline Silicon Solar Cells via Plasma Etching and Laser Ablation. , 2018, , .		1
86	Stretchability of Archimedean-Spiral Interconnects Design. , 2018, , .		3
87	3D Printed Robotic Assembly Enabled Reconfigurable Display with Higher Resolution. Advanced Materials Technologies, 2018, 3, 1800344.	5.8	10
88	Compliant plant wearables for localized microclimate and plant growth monitoring. Npj Flexible Electronics, 2018, 2, .	10.7	119
89	Fully spherical stretchable silicon photodiodes array for simultaneous 360 imaging. Applied Physics Letters, 2018, 113, .	3.3	9
90	Solution processes for ultrabroadband and omnidirectional graded-index glass lenses with near-zero reflectivity in high concentration photovoltaics. Scientific Reports, 2018, 8, 14907.	3.3	4

#	Article	IF	CITATIONS
91	Flexible Lightweight CMOS-Enabled Multisensory Platform for Plant Microclimate Monitoring. IEEE Transactions on Electron Devices, 2018, , 1-7.	3.0	10
92	Flexible and Stretchable Electronics – Progress, Challenges, and Prospects. Electrochemical Society Interface, 2018, 27, 65-69.	0.4	16
93	Contact resistance reduction of ZnO thin film transistors (TFTs) with saw-shaped electrode. Nanotechnology, 2018, 29, 325202.	2.6	7
94	In-plane and out-of-plane structural response of spiral interconnects for highly stretchable electronics. Journal of Applied Physics, 2018, 124, .	2.5	15
95	Highâ€Performance Flexible Magnetic Tunnel Junctions for Smart Miniaturized Instruments. Advanced Engineering Materials, 2018, 20, 1800471.	3.5	24
96	In-Line Tunnel Field Effect Transistor: Drive Current Improvement. IEEE Journal of the Electron Devices Society, 2018, 6, 721-725.	2.1	11
97	2D materials show brain-like learning. Nature Electronics, 2018, 1, 436-437.	26.0	13
98	Ultra-stretchable Archimedean interconnects for stretchable electronics. Extreme Mechanics Letters, 2018, 24, 6-13.	4.1	14
99	(Invited) Tubular Thermoelectric Generator for Enhanced Power Generation. ECS Meeting Abstracts, 2018, , .	0.0	0
100	(Invited) Homogeneous and Heterogeneous Material Based Nanotube Tunnel Field Effect Transistor with Core-Shell Gate Stacks. ECS Meeting Abstracts, 2018, , .	0.0	0
101	(Invited) Paper Based Wearable Standalone Wheezing Sensor - Not a Low Dimensional System. ECS Meeting Abstracts, 2018, , .	0.0	1
102	Folding and stretching a thermoelectric generator. , 2018, , .		1
103	Freeform Compliant CMOS Electronic Systems for Internet of Everything Applications. IEEE Transactions on Electron Devices, 2017, 64, 1894-1905.	3.0	17
104	Review—Micro and Nano-Engineering Enabled New Generation of Thermoelectric Generator Devices and Applications. ECS Journal of Solid State Science and Technology, 2017, 6, N3036-N3044.	1.8	54
105	Highly Manufacturable Deep (Subâ€Millimeter) Etching Enabled High Aspect Ratio Complex Geometry Legoâ€Like Silicon Electronics. Small, 2017, 13, 1601801.	10.0	12
106	3D Printing: Decal Electronics: Printable Packaged with 3D Printing Highâ€Performance Flexible CMOS Electronic Systems (Adv. Mater. Technol. 1/2017). Advanced Materials Technologies, 2017, 2, .	5.8	0
107	Impact of Physical Deformation on Electrical Performance of Paper-Based Sensors. IEEE Transactions on Electron Devices, 2017, 64, 2022-2029.	3.0	13
108	Recyclable Nonfunctionalized Paperâ€Based Ultralowâ€Cost Wearable Health Monitoring System. Advanced Materials Technologies, 2017, 2, 1600228.	5.8	63

#	Article	IF	CITATIONS
109	Wearable Sensors: Recyclable Nonfunctionalized Paperâ€Based Ultralowâ€Cost Wearable Health Monitoring System (Adv. Mater. Technol. 4/2017). Advanced Materials Technologies, 2017, 2, .	5.8	0
110	Water soluble nano-scale transient material germanium oxide for zero toxic waste based environmentally benign nano-manufacturing. Applied Physics Letters, 2017, 110, .	3.3	15
111	Stretchable and foldable silicon-based electronics. Applied Physics Letters, 2017, 110, .	3.3	20
112	Expandable Polymer Enabled Wirelessly Destructible Highâ€Performance Solid State Electronics. Advanced Materials Technologies, 2017, 2, 1600264.	5.8	20
113	Porous Nanomaterials for Ultrabroadband Omnidirectional Antiâ€Reflection Surfaces with Applications in High Concentration Photovoltaics. Advanced Energy Materials, 2017, 7, 1601992.	19.5	27
114	Flexible and biocompatible high-performance solid-state micro-battery for implantable orthodontic system. Npj Flexible Electronics, 2017, 1, .	10.7	65
115	Stable MoS <sub>2</sub> Fieldâ€Effect Transistors Using TiO <sub>2</sub> Interfacial Layer at Metal/MoS <sub>2</sub> Contact. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1700534.	1.8	14
116	Mechanical response of spiral interconnect arrays for highly stretchable electronics. Applied Physics Letters, 2017, 111, 214102.	3.3	25
117	Printed Organic and Inorganic Electronics: Devices To Systems. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2017, 7, 147-160.	3.6	33
118	Paper-based origami flexible and foldable thermoelectric nanogenerator. Nano Energy, 2017, 31, 296-301.	16.0	125
119	Decal Electronics: Printable Packaged with 3D Printing Highâ€Performance Flexible CMOS Electronic Systems. Advanced Materials Technologies, 2017, 2, 1600175.	5.8	8
120	FDM 3D printed coffee glove embedded with flexible electronic. , 2017, , .		7
121	The Potential of Bifacial Photovoltaics: A Global Perspective. , 2017, , .		3
122	CMOSâ€Technologyâ€Enabled Flexible and Stretchable Electronics for Internet of Everything Applications. Advanced Materials, 2016, 28, 4219-4249.	21.0	179
123	Freeform electronics for advanced healthcare. , 2016, , .		0
124	Design criteria for XeF2 enabled deterministic transformation of bulk silicon (100) into flexible silicon layer. AIP Advances, 2016, 6, .	1.3	10
125	Concentrator photovoltaic module architectures with capabilities for capture and conversion of full global solar radiation. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E8210-E8218.	7.1	48
126	High performance high-κ/metal gate complementary metal oxide semiconductor circuit element on flexible silicon. Applied Physics Letters, 2016, 108, .	3.3	15

#	Article	IF	CITATIONS
127	A CMOS-compatible large-scale monolithic integration of heterogeneous multi-sensors on flexible silicon for IoT applications. , 2016, , .		6
128	From stretchable to reconfigurable inorganic electronics. Extreme Mechanics Letters, 2016, 9, 245-268.	4.1	52
129	Live, free, democratized electronics: Bridging catalyst of multi-disciplinary research. , 2016, , .		0
130	Flexible Electronics: Deterministic Integration of Outâ€ofâ€Plane Sensor Arrays for Flexible Electronic Applications (Small 37/2016). Small, 2016, 12, 5140-5140.	10.0	0
131	Paper Skin Multisensory Platform for Simultaneous Environmental Monitoring. Advanced Materials Technologies, 2016, 1, 1600004.	5.8	93
132	Affordable dual-sensing proximity sensor for touchless interactive systems. , 2016, , .		2
133	Deterministic Integration of Outâ€ofâ€Plane Sensor Arrays for Flexible Electronic Applications. Small, 2016, 12, 5141-5145.	10.0	17
134	Stretchable helical architecture inorganic-organic hetero thermoelectric generator. Nano Energy, 2016, 30, 691-699.	16.0	55
135	Artificial Skin: Paper Skin Multisensory Platform for Simultaneous Environmental Monitoring (Adv.) Tj ETQq1 1 0.	784314 rg	gBŢ /Overlo <mark>c</mark> t
136	Out-of-Plane Strain Effects on Physically Flexible FinFET CMOS. IEEE Transactions on Electron Devices, 2016, 63, 2657-2664.	3.0	13
137	CMOS technology: a critical enabler for free-form electronics-based killer applications. , 2016, , .		0
138	Three-terminal nanoelectromechanical switch based on tungsten nitride—an amorphous metallic material. Nanotechnology, 2016, 27, 035202.	2.6	25
139	Zinc Oxide Integrated Wavy Channel Thin-Film Transistor-Based High-Performance Digital Circuits. IEEE Electron Device Letters, 2016, 37, 193-196.	3.9	7
140	Wavy Channel TFT-Based Digital Circuits. IEEE Transactions on Electron Devices, 2016, 63, 1550-1556.	3.0	7
141	Free-Form Flexible Lithium-Ion Microbattery. IEEE Nanotechnology Magazine, 2016, 15, 402-408.	2.0	24
142	Free form CMOS electronics: Physically flexible and stretchable. , 2015, , .		1
143	Thermal Patches: Ultrastretchable and Flexible Copper Interconnect-Based Smart Patch for Adaptive Thermotherapy (Adv. Healthcare Mater. 5/2015). Advanced Healthcare Materials, 2015, 4, 664-664.	7.6	1
144	Design Considerations for Optimized Lateral Spring Structures for Wearable Electronics. , 2015, , .		2

Design Considerations for Optimized Lateral Spring Structures for Wearable Electronics. , 2015, , . 144

5

			V
	Enhanced cooling in mono-crystalline ultra-thin silicon by embedded micro-air channels. AIP Advances, 2015, 5, 127115.	1.3	10
146 S	SiSn diodes: Theoretical analysis and experimental verification. Applied Physics Letters, 2015, 107, .	3.3	7
	Functional integrity of flexible n-channel metal–oxide–semiconductor field-effect transistors on a eversibly bistable platform. Applied Physics Letters, 2015, 107, .	3.3	18
148 (	Dut-of-plane strain effect on silicon-based flexible FinFETs. , 2015, , .		5
149 N	Metal/Polymer Based Stretchable Antenna for Constant Frequency Farâ€Field Communication in Wearable Electronics. Advanced Functional Materials, 2015, 25, 6565-6575.	14.9	134
150 ( T	Invited) Wavy Channel TFT Architecture for High Performance Oxide Based Displays. ECS Transactions, 2015, 67, 191-198.	0.5	5
	The Role of Microfabrication and Nanotechnology in the Development of Microbial Fuel Cells. Energy Technology, 2015, 3, 996-1006.	3.8	4
152 (	Review on Physically Flexible Nonvolatile Memory for Internet of Everything Electronics. Electronics Switzerland), 2015, 4, 424-479.	3.1	118
153 F	Flexible lithium-ion planer thin-film battery. , 2015, , .		1
154 l	الra-high density out-of-plane strain sensor 3D architecture based on sub-20 nm PMOS FinFET. , 2015, ,		3
155 N	Nano-watt fueling from a micro-scale microbial fuel cell using black tea waste. , 2015, , .		1
156 E	Electrical Analysis of High Dielectric Constant Insulator and Metal Gate Metal Oxide Semiconductor Capacitors on Flexible Bulk Mono-Crystalline Silicon. IEEE Transactions on Reliability, 2015, 64, 579-585.	4.6	15
157 J	Thin PZTâ€Based Ferroelectric Capacitors on Flexible Silicon for Nonvolatile Memory Applications. Advanced Electronic Materials, 2015, 1, 1500045.	5.1	99
158 li	nAs/Si Hetero-Junction Nanotube Tunnel Transistors. Scientific Reports, 2015, 5, 9843.	3.3	78
159 S	Nonplanar Nanoscale Fin Field Effect Transistors on Textile, Paper, Wood, Stone, and Vinyl <i>via</i> Soft Material-Enabled Double-Transfer Printing. ACS Nano, 2015, 9, 5255-5263.	14.6	26
160 S	Si/Ge hetero-structure nanotube tunnel field effect transistor. Journal of Applied Physics, 2015, 117, .	2.5	60
161 h	Wavy Channel architecture thin film transistor (TFT) using amorphous zinc oxide for nigh-performance and low-power semiconductor circuits. , 2015, , .		2

162 Transformational electronics are now reconfiguring., 2015,,.

#	Article	IF	CITATIONS
163	A thermoelectric generator using loop heat pipe and design match for maximum-power generation. Applied Thermal Engineering, 2015, 91, 1082-1091.	6.0	31
164	Study of harsh environment operation of flexible ferroelectric memory integrated with PZT and silicon fabric. Applied Physics Letters, 2015, 107, .	3.3	40
165	Ultrastretchable and Flexible Copper Interconnectâ€Based Smart Patch for Adaptive Thermotherapy. Advanced Healthcare Materials, 2015, 4, 665-673.	7.6	66
166	Simulation Study of a 3-D Device Integrating FinFET and UTBFET. IEEE Transactions on Electron Devices, 2015, 62, 83-87.	3.0	31
167	CMOS compatible fabrication of flexible and semi-transparent FeRAM on ultra-thin bulk monocrystalline silicon (100) fabric. , 2014, , .		4
168	CMOS compatible route for GaAs based large scale flexible and transparent electronics. , 2014, , .		3
169	Wavy channel thin film transistor architecture for area efficient, high performance and low power displays. Physica Status Solidi - Rapid Research Letters, 2014, 8, 248-251.	2.4	6
170	Exploring SiSn as a performance enhancing semiconductor: A theoretical and experimental approach. Journal of Applied Physics, 2014, 116, .	2.5	11
171	Group IV nanotube transistors for next generation ubiquitous computing. Proceedings of SPIE, 2014, , .	0.8	0
172	High temperature performance of flexible SOI FinFETs with sub-20 nm fins. , 2014, , .		0
173	Transfer-less flexible and transparent high-к/metal gate Germanium devices on bulk silicon (100). , 2014, , .		0
174	High temperature study of flexible silicon-on-insulator fin field-effect transistors. Applied Physics Letters, 2014, 105, .	3.3	6
175	CMOS compatible generic batch process towards flexible memory on bulk monocrystalline silicon (100). , 2014, , .		1
176	Design and characterization of ultra-stretchable monolithic silicon fabric. Applied Physics Letters, 2014, 105, .	3.3	56
177	Mechanical anomaly impact on metal-oxide-semiconductor capacitors on flexible silicon fabric. Applied Physics Letters, 2014, 104, 234104.	3.3	27
178	Foldable neuromorphic memristive electronics. , 2014, , .		0
179	Role of metal/silicon semiconductor contact engineering for enhanced output current in microâ€sized microbial fuel cells. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 551-554.	1.8	5
180	Role of metal/silicon semiconductor contact engineering for enhanced output current in microâ€sized microbial fuel cells (Phys. Status Solidi A 3â^•2014). Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 550-550.	1.8	0

#	Article	IF	CITATIONS
181	Back Cover: Wavy channel thin film transistor architecture for area efficient, high performance and low power displays (Phys. Status Solidi RRL 3/2014). Physica Status Solidi - Rapid Research Letters, 2014, 8, .	2.4	0
182	Room to High Temperature Measurements of Flexible SOI FinFETs With Sub-20-nm Fins. IEEE Transactions on Electron Devices, 2014, 61, 3978-3984.	3.0	21
183	Low-cost high-quality crystalline germanium based flexible devices. Physica Status Solidi - Rapid Research Letters, 2014, 08, 794-800.	2.4	10
184	Atmospheric pressure chemical vapor deposition (APCVD) grown biâ€layer graphene transistor characteristics at high temperature. Physica Status Solidi - Rapid Research Letters, 2014, 8, 621-624.	2.4	3
185	Flexible and Transparent Siliconâ€onâ€Polymer Based Subâ€20 nm Nonâ€planar 3D FinFET for Brainâ€Architecture Inspired Computation. Advanced Materials, 2014, 26, 2794-2799.	21.0	49
186	Energy harvesting from organic liquids in micro-sized microbial fuel cells. NPG Asia Materials, 2014, 6, e89-e89.	7.9	68
187	Manufacturing of Thermoelectric Nanomaterials (Bi <sub>0.4</sub> Sb <sub>1.6</sub> Te <sub>3</sub> /Bi <sub>1.75</sub> Te <sub>3.25</sub> ) and Integration into Window Glasses for Thermoelectricity Generation. Energy Technology, 2014, 2, 292-299.	3.8	9
188	Tin – an unlikely ally for silicon field effect transistors?. Physica Status Solidi - Rapid Research Letters, 2014, 8, 332-335.	2.4	11
189	Area and Energy Efficient High-Performance ZnO Wavy Channel Thin-Film Transistor. IEEE Transactions on Electron Devices, 2014, 61, 3223-3228.	3.0	7
190	Wavy channel thin film transistor for area efficient, high performance and low power applications. , 2014, , .		0
191	Back Cover: Tin – an unlikely ally for silicon field effect transistors? (Phys. Status Solidi RRL 4/2014). Physica Status Solidi - Rapid Research Letters, 2014, 8, .	2.4	0
192	Rapid Evaluation of Power Degradation in Series Connection of Single Feeding Microsized Microbial Fuel Cells. Energy Technology, 2014, 2, 673-676.	3.8	1
193	Solid state MEMS devices on flexible and semi-transparent silicon (100) platform. , 2014, , .		5
194	Brain inspired high performance electronics on flexible silicon. , 2014, , .		0
195	Flexible Nanoscale High-Performance FinFETs. ACS Nano, 2014, 8, 9850-9856.	14.6	65
196	High performance flexible CMOS SOI FinFETs. , 2014, , .		0
197	Towards neuromorphic electronics: Memristors on foldable silicon fabric. Microelectronics Journal, 2014, 45, 1392-1395.	2.0	22
198	Transformational Silicon Electronics. ACS Nano, 2014, 8, 1468-1474.	14.6	80

#	Article	IF	CITATIONS
199	Additive advantage in characteristics of MIMCAPs on flexible silicon (100) fabric with releaseâ€first process. Physica Status Solidi - Rapid Research Letters, 2014, 8, 163-166.	2.4	14
200	Transformational electronics: a powerful way to revolutionize our information world. , 2014, , .		1
201	Power generation from thermoelectric system-embedded Plexiglas for green building technology. Applied Nanoscience (Switzerland), 2013, 3, 335-342.	3.1	3
202	Thermoelectricity from wasted heat of integrated circuits. Applied Nanoscience (Switzerland), 2013, 3, 175-178.	3.1	8
203	Flexible and Semiâ€Transparent Thermoelectric Energy Harvesters from Low Cost Bulk Silicon (100). Small, 2013, 9, 3916-3921.	10.0	70
204	Chemical vapor deposition based tungsten disulfide (WS <inf>2</inf> ) thin film transistor. , 2013, , .		6
205	Memristor-based memory: The sneak paths problem and solutions. Microelectronics Journal, 2013, 44, 176-183.	2.0	347
206	High-Performance Silicon Nanotube Tunneling FET for Ultralow-Power Logic Applications. IEEE Transactions on Electron Devices, 2013, 60, 1034-1039.	3.0	102
207	Amorphous metal based nanoelectromechanical switch. , 2013, , .		4
208	Wavy channel transistor for area efficient high performance operation. Applied Physics Letters, 2013, 102, 134109.	3.3	20
209	Sustainable Design of High-Performance Microsized Microbial Fuel Cell with Carbon Nanotube Anode and Air Cathode. ACS Nano, 2013, 7, 6921-6927.	14.6	71
210	Can We Build a Truly High Performance Computer Which is Flexible and Transparent?. Scientific Reports, 2013, 3, 2609.	3.3	60
211	Time variant layer control in atmospheric pressure chemical vapor deposition based growth of graphene. , 2013, , .		0
212	Flexible High-\$kappa\$/Metal Gate Metal/Insulator/Metal Capacitors on Silicon (100) Fabric. IEEE Transactions on Electron Devices, 2013, 60, 3305-3309.	3.0	33
213	Grapheneâ€Based Flexible Micrometer‧ized Microbial Fuel Cell. Energy Technology, 2013, 1, 648-652.	3.8	14
214	Low-Voltage Back-Gated Atmospheric Pressure Chemical Vapor Deposition Based Graphene-Striped Channel Transistor with High-l̂º Dielectric Showing Room-Temperature Mobility > 11 000 cm <sup>2</sup> /V·s. ACS Nano, 2013, 7, 5818-5823.	14.6	14
215	Simplistic graphene transfer process and its impact on contact resistance. Applied Physics Letters, 2013, 102, 183115.	3.3	30
216	Post-CMOS FinFET Integration of Bismuth Telluride and Antimony Telluride Thin-Film-Based Thermoelectric Devices on Sol Substrate. IEEE Electron Device Letters, 2013, 34, 1334-1336.	3.9	11

#	Article	IF	CITATIONS
217	Mechanically flexible optically transparent silicon fabric with high thermal budget devices from bulk silicon (100). , 2013, , .		2
218	Exploring SiSn as channel material for LSTP device applications. , 2013, , .		3
219	Tin (Sn) for enhancing performance in silicon CMOS. , 2013, , .		1
220	Silicon fabric for multi-functional applications. , 2013, , .		11
221	Energy Harvesters: Flexible and Semiâ€Transparent Thermoelectric Energy Harvesters from Low Cost Bulk Silicon (100) (Small 23/2013). Small, 2013, 9, 3915-3915.	10.0	0
222	Direct measurement of graphene contact resistivity to pre-deposited metal in buried contact test structure. , 2013, , .		0
223	Structural and electrical characteristics of high-k/metal gate metal oxide semiconductor capacitors fabricated on flexible, semi-transparent silicon (100) fabric. Applied Physics Letters, 2013, 102, .	3.3	37
224	Energy reversible switching from amorphous metal based nanoelectromechanical switch. , 2013, , .		14
225	Back Cover: Thermal recrystallization of physical vapor deposition based germanium thin films on bulk silicon (100) (Phys. Status Solidi RRL 11/2013). Physica Status Solidi - Rapid Research Letters, 2013, 7,	2.4	0
226	Back Cover: Flexible semiâ€transparent silicon (100) fabric with highâ€k/metal gate devices (Phys. Status) Tj ETQ	9q0 0 0 rgE 2.4	BT /Overlock
227	Flexible semiâ€transparent silicon (100) fabric with highâ€k/metal gate devices. Physica Status Solidi - Rapid Research Letters, 2013, 7, 187-191.	2.4	17
228	Thermal recrystallization of physical vapor deposition based germanium thin films on bulk silicon (100). Physica Status Solidi - Rapid Research Letters, 2013, 7, 966-970.	2.4	7
229	Zinc oxide integrated area efficient high output low power wavy channel thin film transistor. Applied Physics Letters, 2013, 103, 224101.	3.3	10
230	Are Nanotube Architectures More Advantageous Than Nanowire Architectures For Field Effect Transistors?. Scientific Reports, 2012, 2, 475.	3.3	86
231	Excellent endurance of MWCNT anode in micro-sized Microbial Fuel Cell. , 2012, , .		1
232	Sub-15 nm nano-pattern generation by spacer width control for high density precisely positioned self-assembled device nanomanufacturing. , 2012, , .		0
233	Vertically Grown Multiwalled Carbon Nanotube Anode and Nickel Silicide Integrated High Performance Microsized (1.25 μL) Microbial Fuel Cell. Nano Letters, 2012, 12, 791-795.	9.1	125

234Contact engineering for nanoâ€scale CMOS. Physica Status Solidi (A) Applications and Materials1.84234Science, 2012, 209, 1954-1959.1.84

#	Article	IF	CITATIONS
235	(110) and (100) Sidewall-oriented FinFETs: A performance and reliability investigation. Solid-State Electronics, 2012, 78, 2-10.	1.4	29
236	Mechanically flexible optically transparent porous mono-crystalline silicon substrate. , 2012, , .		8
237	Nano-materials Enabled Thermoelectricity from Window Glasses. Scientific Reports, 2012, 2, 841.	3.3	30
238	Fabrication of Three-Dimensional MIS Nano-Capacitor Based on Nanoimprinted Single Crystal Silicon Nanowire Arrays. Micro and Nanosystems, 2012, 4, 333-338.	0.6	3
239	Acetic acid-confined synthesis of uniform three-dimensional (3D) bismuth telluride nanocrystals consisting of few-quintuple-layer nanoplatelets. Chemical Communications, 2011, 47, 12131.	4.1	10
240	Multi states electromechanical switch for energy efficient parallel data processing. , 2011, , .		2
241	Silicon Nanotube Field Effect Transistor with Core–Shell Gate Stacks for Enhanced High-Performance Operation and Area Scaling Benefits. Nano Letters, 2011, 11, 4393-4399.	9.1	142
242	Contact materials for nanowire devices and nanoelectromechanical switches. MRS Bulletin, 2011, 36, 106-111.	3.5	6
243	Design and Finite Element Method Analysis of Laterally Actuated Multi-Value Nano Electromechanical Switches. Japanese Journal of Applied Physics, 2011, 50, 094301.	1.5	1
244	Impact of scaling on the performance and reliability degradation of metal-contacts in NEMS devices. , 2011, , .		20
245	Gate-First Integration of Tunable Work Function Metal Gates of Different Thicknesses Into High-\$k\$/Metal Gates CMOS FinFETs for Multi- \$V_{m Th}\$ Engineering. IEEE Transactions on Electron Devices, 2010, 57, 626-631.	3.0	25
246	Large-scale graphitic thin films synthesized on Ni and transferred to insulators: Structural and electronic properties. Journal of Applied Physics, 2010, 107, .	2.5	83
247	A new paradigm in the design of energy-efficient digital circuits using laterally-actuated double-gate NEMs. , 2010, , .		10
248	Design and analysis of compact ultra energy-efficient logic gates using laterally-actuated double-electrode NEMS. , 2010, , .		23
249	Advanced high-k/metal gate stack progress and challenges – a materials and process integration perspective. International Journal of Materials Research, 2010, 101, 155-163.	0.3	2
250	Self-powered integrated systems-on-chip (energy chip). Proceedings of SPIE, 2010, , .	0.8	1
251	Nuclear Magnetic Resonance Study of Nanoscale Ionic Materials. Electrochemical and Solid-State Letters, 2010, 13, K87.	2.2	13
252	A novel match-line selective charging scheme for high-speed, low-power and noise-tolerant		2

content-addressable memory. , 2010, , .

#	Article	IF	CITATIONS
253	La-doped metal/high-K nMOSFET for sub-32nm HP and LSTP application. , 2009, , .		2
254	Hot carrier degradation in HfSiONâ^•TiN fin shaped field effect transistor with different substrate orientations. Journal of Vacuum Science & Technology B, 2009, 27, 468.	1.3	19
255	Dipole Model Explaining High-k/Metal Gate Threshold Voltage Tuning. ECS Transactions, 2009, 19, 269-276.	0.5	Ο
256	The progress and challenges of threshold voltage control of high-k/metal-gated devices for advanced technologies (Invited Paper). Microelectronic Engineering, 2009, 86, 1722-1727.	2.4	18
257	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, , .		6
258	Enhanced Performance and SRAM Stability in FinFET with Reduced Process Steps for Source/Drain Doping. International Power Modulator Symposium and High-Voltage Workshop, 2008, , .	0.0	6
259	Comparison of Uniaxial Wafer Bending and Contact-Etch-Stop-Liner Stress Induced Performance Enhancement on Double-Gate FinFETs. IEEE Electron Device Letters, 2008, 29, 480-482.	3.9	24
260	Understanding Strain Effects on Double-Gate FinFET Drive-Current Enhancement, Hot-Carrier Reliability and Ring-Oscillator Delay Performance via Uniaxial Wafer Bending Experiments. International Power Modulator Symposium and High-Voltage Workshop, 2008, , .	0.0	3
261	Measurement of high-k and metal film thickness on FinFET sidewalls using scatterometry. Proceedings of SPIE, 2008, , .	0.8	12
262	Dipole model explaining high-k/metal gate field effect transistor threshold voltage tuning. Applied Physics Letters, 2008, 92, .	3.3	161
263	Atomic force microscope study of three-dimensional nanostructure sidewalls. Nanotechnology, 2007, 18, 335303.	2.6	7
264	Highly selective isotropic dry etch based nanofabrication. Journal of Vacuum Science & Technology B, 2007, 25, 1416.	1.3	1
265	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. Applied Physics Letters, 2007, 91, .	3.3	18
266	High Performance pMOSFETs Using Si/Si <inf>1-x</inf> Ge <inf>x</inf> /Si Quantum Wells with High-k/Metal Gate Stacks and Additive Uniaxial Strain for 22 nm Technology Node. , 2007, , .		12
267	Dual work function high-k/Metal Gate CMOS FinFETs. , 2007, , .		3
268	Deposition thickness based high-throughput nano-imprint template. Microelectronic Engineering, 2007, 84, 594-598.	2.4	7
269	Effects of ALD TiN Metal Gate Thickness on Metal Gate /High-k Dielectric SOI FinFET Characteristics. SOI Conference, Proceedings of the IEEE International, 2006, , .	0.0	6
270	Impact of Metal Wet Etch on Device Characteristics and Reliability for Dual Metal Gate/High-k CMOS. , 2006, , .		1

#	Article	IF	CITATIONS
271	Plasma-Induced Damage in High-\$k\$/Metal Gate Stack Dry Etch. IEEE Electron Device Letters, 2006, 27, 972-974.	3.9	18
272	Thermal annealing effects on a representative high-k/metal film stack. Semiconductor Science and Technology, 2006, 21, 1437-1440.	2.0	23
273	Deposition Method-Induced Stress Effect on Ultrathin Titanium Nitride Etch Characteristics. Electrochemical and Solid-State Letters, 2006, 9, G361.	2.2	7
274	Challenges in Dual Workfunction Metal Gate CMOS Integration. ECS Transactions, 2006, 3, 263-274.	0.5	0
275	Metal Wet Etch Issues and Effects in Dual Metal Gate Stack Integration. Journal of the Electrochemical Society, 2006, 153, G389.	2.9	13
276			