Afzaal Qamar

List of Publications by Year
in descending order

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52 papers	1,302 citations	279798 23 h-index	361022 35 g-index
53 all docs	53 docs citations	53 times ranked	1124 citing authors

#	Article	IF	Citations
1	AlScNâ€onâ€SiC Thin Film Micromachined Resonant Transducers Operating in Highâ€Temperature Environment up to 600ÂÂ°C. Advanced Functional Materials, 2022, 32, .	14.9	12
2	Thermal-piezoresistive pumping on double SiC layer resonator for effective quality factor tuning. Sensors and Actuators A: Physical, 2022, 343, 113678.	4.1	2
3	Ultra-sensitive self-powered position-sensitive detector based on horizontally-aligned double 3C-SiC/Si heterostructures. Nano Energy, 2021, 79, 105494.	16.0	25
4	Nanoarchitectonics for Wide Bandgap Semiconductor Nanowires: Toward the Next Generation of Nanoelectromechanical Systems for Environmental Monitoring. Advanced Science, 2020, 7, 2001294.	11.2	48
5	Stretchable Bioelectronics: A Versatile Sacrificial Layer for Transfer Printing of Wide Bandgap Materials for Implantable and Stretchable Bioelectronics (Adv. Funct. Mater. 43/2020). Advanced Functional Materials, 2020, 30, 2070287.	14.9	1
6	A Versatile Sacrificial Layer for Transfer Printing of Wide Bandgap Materials for Implantable and Stretchable Bioelectronics. Advanced Functional Materials, 2020, 30, 2004655.	14.9	34
7	Thermo-Acoustic Engineering of GaN SAW Resonators for Stable Clocks in Extreme Environments. , 2020, , .		5
8	Ultra-High-Q Gallium Nitride SAW Resonators for Applications With Extreme Temperature Swings. Journal of Microelectromechanical Systems, 2020, 29, 900-905.	2.5	13
9	Self-powered monolithic accelerometer using a photonic gate. Nano Energy, 2020, 76, 104950.	16.0	18
10	High temperature silicon-carbide-based flexible electronics for monitoring hazardous environments. Journal of Hazardous Materials, 2020, 394, 122486.	12.4	15
11	ScAlN/3C-SiC/Si platform for monolithic integration of highly sensitive piezoelectric and piezoresistive devices. Applied Physics Letters, 2020, 116, 132902.	3.3	7
12	Study of Energy Loss Mechanisms in AlN-Based Piezoelectric Length Extensional-Mode Resonators. Journal of Microelectromechanical Systems, 2019, 28, 619-627.	2.5	18
13	Wireless Battery-Free SiC Sensors Operating in Harsh Environments Using Resonant Inductive Coupling. IEEE Electron Device Letters, 2019, 40, 609-612.	3.9	12
14	Coupled BAW/SAW Resonators Using AlN/Mo/Si and AlN/Mo/GaN Layered Structures. IEEE Electron Device Letters, 2019, 40, 321-324.	3.9	19
15	A large pseudo-Hall effect in n-type 3C-SiC(1 0 0) and its dependence on crystallographic orientation for stress sensing applications. Materials Letters, 2018, 213, 11-14.	2.6	10
16	Solidly Mounted Anti-Symmetric Lamb-Wave Delay Lines as an Alternate to SAW Devices. IEEE Electron Device Letters, 2018, 39, 1916-1919.	3.9	12
17	Environment-friendly wearable thermal flow sensors for noninvasive respiratory monitoring. , 2017, , .		8
18	Formation of silicon carbide nanowire on insulator through direct wet oxidation. Materials Letters, 2017, 196, 280-283.	2.6	5

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19	Solvent-free fabrication of biodegradable hot-film flow sensor for noninvasive respiratory monitoring. Journal Physics D: Applied Physics, 2017, 50, 215401.	2.8	54
20	Ultra-high strain in epitaxial silicon carbide nanostructures utilizing residual stress amplification. Applied Physics Letters, 2017, 110, 141906.	3.3	21
21	Piezo-Hall effect and fundamental piezo-Hall coefficients of single crystal n-type 3C-SiC(100) with low carrier concentration. Applied Physics Letters, 2017, 110, 162903.	3.3	4
22	Thermoresistive Effect for Advanced Thermal Sensors: Fundamentals, Design Considerations, and Applications. Journal of Microelectromechanical Systems, 2017, 26, 966-986.	2.5	108
23	Novel effect of spin dynamics with suppression of charge and orbital ordering in Nd 0.5 Ca 0.5 MnO 3 under the influence of ac electric field. Journal of Magnetism and Magnetic Materials, 2017, 434, 86-90.	2.3	3
24	Self-sensing paper-based actuators employing ferromagnetic nanoparticles and graphite. Applied Physics Letters, 2017, 110, .	3.3	29
25	Pushing the Limits of Piezoresistive Effect by Optomechanical Coupling in 3C-SiC/Si Heterostructure. ACS Applied Materials & Interfaces, 2017, 9, 39921-39925.	8.0	26
26	Pseudo-Hall Effect in Graphite on Paper Based Four Terminal Devices for Stress Sensing Applications. Journal of Physics: Conference Series, 2017, 829, 012004.	0.4	1
27	Fundamental piezo-Hall coefficients of single crystal p-type 3C-SiC for arbitrary crystallographic orientation. Applied Physics Letters, 2016, 109, 092903.	3.3	3
28	Nano strain-amplifier: Making ultra-sensitive piezoresistance in nanowires possible without the need of quantum and surface charge effects. Applied Physics Letters, 2016, 109, .	3.3	36
29	Design and fabrication of electrothermal SiC nanoresonators for high-resolution nanoparticle sensing. , 2016, , .		1
30	High thermosensitivity of silicon nanowires induced by amorphization. Materials Letters, 2016, 177, 80-84.	2.6	28
31	Environment-friendly carbon nanotube based flexible electronics for noninvasive and wearable healthcare. Journal of Materials Chemistry C, 2016, 4, 10061-10068.	5.5	119
32	3Câ€“SiC on glass: an ideal platform for temperature sensors under visible light illumination. RSC Advances, 2016, 6, 87124-87127.	3.6	12
33	Flexible and multifunctional electronics fabricated by a solvent-free and user-friendly method. RSC Advances, 2016, 6, 77267-77274.	3.6	27
34	Piezoresistive effect in p-type 3C-SiC at high temperatures characterized using Joule heating. Scientific Reports, 2016, 6, 28499.	3.3	55
35	The Piezoresistive Effect in Topâ€“Down Fabricated p-Type 3C-SiC Nanowires. IEEE Electron Device Letters, 2016, 37, 1029-1032.	3.9	45
36	Piezo-Hall effect in single crystal p-type 3Câ€“SiC(100) thin film grown by low pressure chemical vapor deposition. RSC Advances, 2016, 6, 31191-31195.	3.6	9

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37	Piezoresistive effect of p-type single crystalline 3Câ€“SiC on (111) plane. RSC Advances, 2016, 6, 21302-21307.	3.6	40
38	Graphite-on-paper based tactile sensors using plastic laminating technique. , 2015, , .		11
39	Thermoresistive properties of p-type 3Câ€“SiC nanoscale thin films for high-temperature MEMS thermal-based sensors. RSC Advances, 2015, 5, 106083-106086.	3.6	38
40	Orientation dependence of the pseudo-Hall effect in p-type 3Câ€“SiC four-terminal devices under mechanical stress. RSC Advances, 2015, 5, 56377-56381.	3.6	25
41	The effect of strain on the electrical conductance of p-type nanocrystalline silicon carbide thin films. Journal of Materials Chemistry C, 2015, 3, 1172-1176.	5.5	29
42	Influence of external mechanical stress on electrical properties of single-crystal n-3C-SiC/p-Si heterojunction diode. Applied Physics Express, 2015, 8, 061302.	2.4	11
43	Charge transport and activation energy of amorphous silicon carbide thin film on quartz at elevated temperature. Applied Physics Express, 2015, 8, 061303.	2.4	41
44	Graphite on paper as material for sensitive thermoresistive sensors. Journal of Materials Chemistry C, 2015, 3, 8776-8779.	5.5	98
45	Piezoresistive effect of p-type silicon nanowires fabricated by a top-down process using FIB implantation and wet etching. RSC Advances, 2015, 5, 82121-82126.	3.6	39
46	The effect of device geometry and crystal orientation on the stress-dependent offset voltage of 3Câ€“SiC(100) four terminal devices. Journal of Materials Chemistry C, 2015, 3, 8804-8809.	5.5	25
47	The Dependence of Offset Voltage in p-Type 3C-SiC van der Pauw Device on Applied Strain. IEEE Electron Device Letters, 2015, 36, 708-710.	3.9	25
48	Pseudo-Hall effect in single crystal 3C-SiC(111) four-terminal devices. Journal of Materials Chemistry C, 2015, 3, 12394-12398.	5.5	17
49	Frequency effects on charge ordering in Y0.5Ca0.5MnO3 by impedance spectroscopy. Journal of Magnetism and Magnetic Materials, 2015, 375, 227-233.	2.3	4
50	Electrical Properties of p-type 3C-SiC/Si Heterojunction Diode Under Mechanical Stress. IEEE Electron Device Letters, 2014, 35, 1293-1295.	3.9	30
51	Synthesis and characterization of porous crystalline SiC thin films prepared by radio frequency reactive magnetron sputtering technique. Applied Surface Science, 2011, 257, 6923-6927.	6.1	20
52	Pseudo-Hall Effect in Single Crystal n-Type 3C-SiC(100) Thin Film. Key Engineering Materials, 0, 733, 3-7.	0.4	3