

Muhammad Toyabur Rahman

List of Publications by Year in descending order

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39
papers

2,179
citations

218677

26
h-index

414414

32
g-index

39
all docs

39
docs citations

39
times ranked

1374
citing authors

#	ARTICLE	IF	CITATIONS
1	Fabrication-Assisted MXene/Silicone Nanocomposite-Based Triboelectric Nanogenerators for Self-Powered Sensors and Wearable Electronics. <i>Advanced Functional Materials</i> , 2022, 32, 2107143.	14.9	81
2	Metal-organic framework-derived nanoporous carbon incorporated nanofibers for high-performance triboelectric nanogenerators and self-powered sensors. <i>Nano Energy</i> , 2022, 94, 106921.	16.0	79
3	A Hybrid Self-Powered Arbitrary Wave Motion Sensing System for Real-Time Wireless Marine Environment Monitoring Application (<i>Adv. Energy Mater.</i> 7/2022). <i>Advanced Energy Materials</i> , 2022, 12, .	19.5	0
4	A High-Performance Rotational Energy Harvester Integrated with Artificial Intelligence-Powered Triboelectric Sensors for Wireless Environmental Monitoring System. <i>Advanced Engineering Materials</i> , 2022, 24, .	3.5	5
5	A Hybrid Self-Powered Arbitrary Wave Motion Sensing System for Real-Time Wireless Marine Environment Monitoring Application. <i>Advanced Energy Materials</i> , 2022, 12, .	19.5	18
6	Silicone-incorporated nanoporous cobalt oxide and MXene nanocomposite-coated stretchable fabric for wearable triboelectric nanogenerator and self-powered sensing applications. <i>Nano Energy</i> , 2022, 100, 107454.	16.0	29
7	A Novel MXene/Ecoflex Nanocomposite-Coated Fabric as a Highly Negative and Stable Friction Layer for High-Output Triboelectric Nanogenerators. <i>Advanced Energy Materials</i> , 2021, 11, .	19.5	133
8	High-performance triboelectric nanogenerator based on MXene functionalized polyvinylidene fluoride composite nanofibers. <i>Nano Energy</i> , 2021, 81, 105670.	16.0	211
9	An Electrospun PVDF-TRFE/Mxene Nanofibrous Mat-Based Self-Powered Motion Sensor. , 2021, , .		5
10	A Poly-DADMAC Functionalized Nanofibrous Mat-Based Self-Powered Human Motion Sensor for IoT Applications. , 2021, , .		0
11	Keystroke Dynamics based Hybrid Nanogenerators for Biometric Authentication and Identification using Artificial Intelligence. <i>Advanced Science</i> , 2021, 8, e2100711.	11.2	35
12	Ultra-robust and broadband rotary hybridized nanogenerator for self-sustained smart-farming applications. <i>Nano Energy</i> , 2021, 85, 105974.	16.0	33
13	Cobalt-Nanoporous Carbon Functionalized Nanocomposite-Based Triboelectric Nanogenerator for Contactless and Sustainable Self-Powered Sensor Systems. <i>Advanced Functional Materials</i> , 2021, 31, 2105110.	14.9	47
14	High-performance keyboard typing motion driven hybrid nanogenerator. <i>Nano Energy</i> , 2021, 88, 106232.	16.0	14
15	Cation functionalized nylon composite nanofibrous mat as a highly positive friction layer for robust, high output triboelectric nanogenerators and self-powered sensors. <i>Nano Energy</i> , 2021, 88, 106300.	16.0	47
16	Electrospun PVDF-TrFE/MXene Nanofiber Mat-Based Triboelectric Nanogenerator for Smart Home Appliances. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 4955-4967.	8.0	211
17	A highly miniaturized freestanding kinetic-impact-based non-resonant hybridized electromagnetic-triboelectric nanogenerator for human induced vibrations harvesting. <i>Applied Energy</i> , 2020, 279, 115799.	10.1	55
18	A Battery-Less Arbitrary Motion Sensing System Using Magnetic Repulsion-Based Self-Powered Motion Sensors and Hybrid Nanogenerator. <i>Advanced Functional Materials</i> , 2020, 30, 2003276.	14.9	33

#	ARTICLE	IF	CITATIONS
19	A Fully Functional Universal Self-Chargeable Power Module for Portable/Wearable Electronics and Self-Powered IoT Applications. <i>Advanced Energy Materials</i> , 2020, 10, 2002782.	19.5	53
20	Battery-Less Motion Sensing: A Battery-Less Arbitrary Motion Sensing System Using Magnetic Repulsion-Based Self-Powered Motion Sensors and Hybrid Nanogenerator (<i>Adv. Funct. Mater.</i> 36/2020). <i>Advanced Functional Materials</i> , 2020, 30, 2070245.	14.9	0
21	A human-machine interactive hybridized biomechanical nanogenerator as a self-sustainable power source for multifunctional smart electronics applications. <i>Nano Energy</i> , 2020, 76, 105025.	16.0	40
22	Biomechanical Energy: Biomechanical Energy-Driven Hybridized Generator as a Universal Portable Power Source for Smart/Wearable Electronics (<i>Adv. Energy Mater.</i> 12/2020). <i>Advanced Energy Materials</i> , 2020, 10, 2070056.	19.5	0
23	A human skin-inspired self-powered flex sensor with thermally embossed microstructured triboelectric layers for sign language interpretation. <i>Nano Energy</i> , 2020, 76, 105071.	16.0	74
24	Biomechanical Energy-Driven Hybridized Generator as a Universal Portable Power Source for Smart/Wearable Electronics. <i>Advanced Energy Materials</i> , 2020, 10, 1903663.	19.5	63
25	Hybrid Energy Harvesters: A Fully Functional Universal Self-Chargeable Power Module for Portable/Wearable Electronics and Self-Powered IoT Applications (<i>Adv. Energy Mater.</i> 48/2020). <i>Advanced Energy Materials</i> , 2020, 10, 2070199.	19.5	1
26	Green Synthesis and Layer-by-Layer Assembly of Amino-Functionalized Graphene Oxide/Carboxylic Surface Modified Trimetallic Nanoparticles Nanocomposite for Label-Free Electrochemical Biosensing. <i>Journal of the Electrochemical Society</i> , 2019, 166, B983-B993.	2.9	26
27	High-performance cycloid inspired wearable electromagnetic energy harvester for scavenging human motion energy. <i>Applied Energy</i> , 2019, 256, 113987.	10.1	102
28	A Natural Wind-Driven 3D-Printed Miniaturized and Fully Enclosed Hybrid Nanogenerator Using Flexible Blade Structure for Subway Tunnel Applications. , 2019, , .		0
29	Design and experimental analysis of a low-frequency resonant hybridized nanogenerator with a wide bandwidth and high output power density. <i>Nano Energy</i> , 2019, 66, 104122.	16.0	21
30	Ex Situ Hybridized Hexagonal Cobalt Oxide Nanosheets and RGO@MWCNT Based Nanocomposite for Ultra-Selective Electrochemical Detection of Ascorbic Acid, Dopamine, and Uric Acid. <i>Journal of the Electrochemical Society</i> , 2019, 166, B304-B311.	2.9	31
31	Natural wind-driven ultra-compact and highly efficient hybridized nanogenerator for self-sustained wireless environmental monitoring system. <i>Nano Energy</i> , 2019, 57, 256-268.	16.0	98
32	A human locomotion inspired hybrid nanogenerator for wrist-wearable electronic device and sensor applications. <i>Nano Energy</i> , 2018, 46, 383-395.	16.0	125
33	High performance human-induced vibration driven hybrid energy harvester for powering portable electronics. <i>Nano Energy</i> , 2018, 45, 236-246.	16.0	71
34	An impedance tunable and highly efficient triboelectric nanogenerator for large-scale, ultra-sensitive pressure sensing applications. <i>Nano Energy</i> , 2018, 49, 603-613.	16.0	124
35	A hybrid piezoelectric and electromagnetic energy harvester for scavenging low frequency ambient vibrations. <i>Journal of Physics: Conference Series</i> , 2018, 1052, 012051.	0.4	7
36	A free motion driven electromagnetic and triboelectric hybridized nanogenerator for scavenging low frequency vibrations. , 2018, , .		4

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37	A multimodal hybrid energy harvester based on piezoelectric-electromagnetic mechanisms for low-frequency ambient vibrations. <i>Energy Conversion and Management</i> , 2018, 168, 454-466.	9.2	168
38	Miniaturized springless hybrid nanogenerator for powering portable and wearable electronic devices from human-body-induced vibration. <i>Nano Energy</i> , 2018, 51, 61-72.	16.0	60
39	Design and experiment of piezoelectric multimodal energy harvester for low frequency vibration. <i>Ceramics International</i> , 2017, 43, S675-S681.	4.8	75