

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	High-performance triboelectric nanogenerator based on MXene functionalized polyvinylidene fluoride composite nanofibers. <i>Nano Energy</i> , 2021, 81, 105670.	16.0	211
2	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
3	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
4	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
5	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
6	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
7	High-performance cycloid inspired wearable electromagnetic energy harvester for scavenging human motion energy. <i>Applied Energy</i> , 2019, 256, 113987.	10.1	102
8	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
9	Fabric-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
10	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
11	Design and experiment of piezoelectric multimodal energy harvester for low frequency vibration. <i>Ceramics International</i> , 2017, 43, S675-S681.	4.8	75
12	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
13	High performance human-induced vibration driven hybrid energy harvester for powering portable electronics. <i>Nano Energy</i> , 2018, 45, 236-246.	16.0	71
14	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
15	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
16	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
17	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
18	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

#	ARTICLE	IF	CITATIONS
19	Cation functionalized nylon composite nanofibrous mat as a highly positive friction layer for robust, high output triboelectric nanogenerators and self-powered sensors. Nano Energy, 2021, 88, 106300.	16.0	47
20	A human-machine interactive hybridized biomechanical nanogenerator as a self-sustainable power source for multifunctional smart electronics applications. Nano Energy, 2020, 76, 105025.	16.0	40
21	Keystroke Dynamics based Hybrid Nanogenerators for Biometric Authentication and Identification using Artificial Intelligence. Advanced Science, 2021, 8, e2100711.	11.2	35
22	A Batteryâ€Less Arbitrary Motion Sensing System Using Magnetic Repulsionâ€Based Selfâ€Powered Motion Sensors and Hybrid Nanogenerator. Advanced Functional Materials, 2020, 30, 2003276.	14.9	33
23	Ultra-robust and broadband rotary hybridized nanogenerator for self-sustained smart-farming applications. Nano Energy, 2021, 85, 105974.	16.0	33
24	Ex Situ Hybridized Hexagonal Cobalt Oxide Nanosheets and RGO@MWCNT Based Nanocomposite for Ultra-Selective Electrochemical Detection of Ascorbic Acid, Dopamine, and Uric Acid. Journal of the Electrochemical Society, 2019, 166, B304-B311.	2.9	31
25	Silicone-incorporated nanoporous cobalt oxide and MXene nanocomposite-coated stretchable fabric for wearable triboelectric nanogenerator and self-powered sensing applications. Nano Energy, 2022, 100, 107454.	16.0	29
26	Green Synthesis and Layer-by-Layer Assembly of Amino-Functionalized Graphene Oxide/Carboxylic Surface Modified Trimetallic Nanoparticles Nanocomposite for Label-Free Electrochemical Biosensing. Journal of the Electrochemical Society, 2019, 166, B983-B993.	2.9	26
27	Design and experimental analysis of a low-frequency resonant hybridized nanogenerator with a wide bandwidth and high output power density. Nano Energy, 2019, 66, 104122.	16.0	21
28	A Hybrid Selfâ€Powered Arbitrary Wave Motion Sensing System for Realâ€Time Wireless Marine Environment Monitoring Application. Advanced Energy Materials, 2022, 12, .	19.5	18
29	High-performance keyboard typing motion driven hybrid nanogenerator. Nano Energy, 2021, 88, 106232.	16.0	14
30	A hybrid piezoelectric and electromagnetic energy harvester for scavenging low frequency ambient vibrations. Journal of Physics: Conference Series, 2018, 1052, 012051.	0.4	7
31	An Electrospun PVDF-TRFE/Mxene Nanofibrous Mat-Based Self-Powered Motion Sensor. , 2021, , .		5
32	A Highâ€Performance Rotational Energy Harvester Integrated with Artificial Intelligenceâ€Powered Triboelectric Sensors for Wireless Environmental Monitoring System. Advanced Engineering Materials, 2022, 24, .	3.5	5
33	A free motion driven electromagnetic and triboelectric hybridized nanogenerator for scavenging low frequency vibrations. , 2018, , .		4
34	Hybrid Energy Harvesters: A Fully Functional Universal Selfâ€Chargeable Power Module for Portable/Wearable Electronics and Selfâ€Powered IoT Applications (Adv. Energy Mater. 48/2020). Advanced Energy Materials, 2020, 10, 2070199.	19.5	1
35	A Natural Wind-Driven 3D-Printed Miniaturized and Fully Enclosed Hybrid Nanogenerator Using Flexible Blade Structure for Subway Tunnel Applications. , 2019, , .		0
36	Batteryâ€Less Motion Sensing: A Batteryâ€Less Arbitrary Motion Sensing System Using Magnetic Repulsionâ€Based Selfâ€Powered Motion Sensors and Hybrid Nanogenerator (Adv. Funct. Mater. 36/2020). Advanced Functional Materials, 2020, 30, 2070245.	14.9	0

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37	Biomechanical Energy: Biomechanical Energy-Driven Hybridized Generator as a Universal Portable Power Source for Smart/Wearable Electronics (Adv. Energy Mater. 12/2020). Advanced Energy Materials, 2020, 10, 2070056.	19.5	0
38	A Poly-DADMAC Functionalized Nanofibrous Mat-Based Self-Powered Human Motion Sensor for IoT Applications. , 2021, , .		0
39	A Hybrid Self-Powered Arbitrary Wave Motion Sensing System for Real-Time Wireless Marine Environment Monitoring Application (Adv. Energy Mater. 7/2022). Advanced Energy Materials, 2022, 12, .	19.5	0