

Nirmal Prashanth Maria Joseph Raj

List of Publications by Year in descending order

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Version: 2024-02-01

34
papers

1,336
citations

394421

19
h-index

377865

34
g-index

35
all docs

35
docs citations

35
times ranked

1052
citing authors

#	ARTICLE	IF	CITATIONS
1	Metal-Organic Framework: A Novel Material for Triboelectric Nanogenerator-Based Self-Powered Sensors and Systems. <i>Advanced Energy Materials</i> , 2019, 9, 1803581.	19.5	138
2	Materials Beyond Conventional Triboelectric Series for Fabrication and Applications of Triboelectric Nanogenerators. <i>Advanced Energy Materials</i> , 2021, 11, 2101170.	19.5	122
3	Triboelectric nanogenerator for healthcare and biomedical applications. <i>Nano Today</i> , 2020, 33, 100882.	11.9	110
4	All edible materials derived biocompatible and biodegradable triboelectric nanogenerator. <i>Nano Energy</i> , 2019, 65, 104016.	16.0	103
5	Zeolitic Imidazole Framework: Metal-Organic Framework Subfamily Members for Triboelectric Nanogenerators. <i>Advanced Functional Materials</i> , 2020, 30, 1910162.	14.9	94
6	Trash to energy: A facile, robust and cheap approach for mitigating environment pollutant using household triboelectric nanogenerator. <i>Applied Energy</i> , 2018, 219, 338-349.	10.1	79
7	ZIF-62: a mixed linker metal-organic framework for triboelectric nanogenerators. <i>Journal of Materials Chemistry A</i> , 2020, 8, 17817-17825.	10.3	66
8	Triboelectric nanogenerator using multiferroic materials: An approach for energy harvesting and self-powered magnetic field detection. <i>Nano Energy</i> , 2021, 85, 105964.	16.0	53
9	Biodegradable metal-organic framework MIL-88A for triboelectric nanogenerator. <i>IScience</i> , 2021, 24, 102064.	4.1	52
10	Synergetic enhancement of energy harvesting performance in triboelectric nanogenerator using ferroelectric polarization for self-powered IR signaling and body activity monitoring. <i>Journal of Materials Chemistry A</i> , 2020, 8, 22257-22268.	10.3	44
11	Sustainable yarn type-piezoelectric energy harvester as an eco-friendly, cost-effective battery-free breath sensor. <i>Applied Energy</i> , 2018, 228, 1767-1776.	10.1	43
12	Remotely controlled self-powering electrical stimulators for osteogenic differentiation using bone inspired bioactive piezoelectric whitlockite nanoparticles. <i>Nano Energy</i> , 2021, 85, 105901.	16.0	43
13	Lead-free piezoelectric nanogenerator using lightweight composite films for harnessing biomechanical energy. <i>Composites Part B: Engineering</i> , 2019, 161, 608-616.	12.0	39
14	Enhancing Hydrophobicity of Starch for Biodegradable Material-Based Triboelectric Nanogenerators. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 9011-9017.	6.7	39
15	Aloe vera: A tropical desert plant to harness the mechanical energy by triboelectric and piezoelectric approaches. <i>Nano Energy</i> , 2020, 73, 104767.	16.0	38
16	Self-powered ferroelectric NTC thermistor based on bismuth titanate. <i>Nano Energy</i> , 2019, 62, 329-337.	16.0	36
17	Phase inversion enabled energy scavenger: A multifunctional triboelectric nanogenerator as benzene monitoring system. <i>Sensors and Actuators B: Chemical</i> , 2019, 282, 590-598.	7.8	36
18	Novel Interfacial Bulk Heterojunction Technique for Enhanced Response in ZnO Nanogenerator. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 6078-6088.	8.0	29

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19	Substantial improvement on electrical energy harvesting by chemically modified/sandpaper-based surface modification in micro-scale for hybrid nanogenerators. <i>Applied Surface Science</i> , 2020, 514, 145904.	6.1	27
20	Green Energy from Edible Materials: Triboelectrification-Enabled Sustainable Self-Powered Human Joint Movement Monitoring. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 6549-6558.	6.7	21
21	All in one transitional flow-based integrated self-powered catechol sensor using BiFeO ₃ nanoparticles. <i>Sensors and Actuators B: Chemical</i> , 2020, 320, 128417.	7.8	19
22	A lead-free ferroelectric Bi _{0.5} Na _{0.5} TiO ₃ based flexible, lightweight nanogenerator for motion monitoring applications. <i>Sustainable Energy and Fuels</i> , 2020, 4, 5636-5644.	4.9	13
23	Metal-Amino Acid Nanofibers based Triboelectric Nanogenerator for Self-Powered Thioacetamide Sensor. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 18887-18896.	8.0	13
24	The morphotropic phase boundary based BCST ferroelectric system for water remediation through Bi-catalytic activity. <i>Journal of Alloys and Compounds</i> , 2021, 871, 159503.	5.5	11
25	One step synthesis of tin oxide nanomaterials and their sintering effect in dye degradation. <i>Optik</i> , 2017, 135, 434-445.	2.9	10
26	Shape-dependent in-plane piezoelectric response of SnSe nanowall/microspheres. <i>Nano Energy</i> , 2021, 88, 106231.	16.0	10
27	Method for fabricating highly crystalline polyvinylidene fluoride for piezoelectric energy-harvesting and vibration sensor applications. <i>Sustainable Energy and Fuels</i> , 2022, 6, 674-681.	4.9	10
28	Ferroelectric flexible composite films based on morphotropic phase boundary for self-powered multisensors. <i>Chemical Engineering Journal</i> , 2021, 414, 128840.	12.7	9
29	Tailoring mechanical energy harvesting performance of piezoelectric nanogenerator via intrinsic electrical conductivity of ferroelectrics. <i>Materials Today Energy</i> , 2021, 20, 100679.	4.7	9
30	0.8BNT-0.2BKT ferroelectric-based multimode energy harvester for self-powered body motion sensors. <i>Nano Energy</i> , 2021, 83, 105848.	16.0	7
31	Crystallinity modulation originates ferroelectricity like nature in piezoelectric selenium. <i>Nano Energy</i> , 2022, 95, 107008.	16.0	4
32	Role of Cationic Oxidation States to Enhance the Electroactive β -Phase of Poly(vinylidene Fluoride) and its Energy Harvesting Performance. <i>ChemElectroChem</i> , 2018, 5, 3533-3539.	3.4	3
33	ZIF-8 Energy Harvester: Metal-Organic Framework: A Novel Material for Triboelectric Nanogenerator-Based Self-Powered Sensors and Systems (<i>Adv. Energy Mater.</i> 14/2019). <i>Advanced Energy Materials</i> , 2019, 9, 1970043.	19.5	3
34	High-Performance Multifaceted Piezoelectric Composite Nanogenerators for Weight-Monitoring Sensors. <i>ACS Applied Electronic Materials</i> , 2021, 3, 2024-2034.	4.3	3