Nirmal Prashanth Maria Joseph Raj

List of Publications by Year
in descending order

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	Method for fabricating highly crystalline polyvinylidene fluoride for piezoelectric energy-harvesting and vibration sensor applications. Sustainable Energy and Fuels, 2022, 6, 674-681.	4.9	10
2	Crystallinity modulation originates ferroelectricity like nature in piezoelectric selenium. Nano Energy, 2022, 95, 107008.	16.0	4
3	Green Energy from Edible Materials: Triboelectrification-Enabled Sustainable Self-Powered Human Joint Movement Monitoring. ACS Sustainable Chemistry and Engineering, 2022, 10, 6549-6558.	6.7	21
4	Biodegradable metal-organic framework MIL-88A for triboelectric nanogenerator. IScience, 2021, 24, 102064.	4.1	52
5	Metal-Amino Acid Nanofibers based Triboelectric Nanogenerator for Self-Powered Thioacetamide Sensor. ACS Applied Materials & Interfaces, 2021, 13, 18887-18896.	8.0	13
6	High-Performance Multifaceted Piezoelectric Composite Nanogenerators for Weight-Monitoring Sensors. ACS Applied Electronic Materials, 2021, 3, 2024-2034.	4.3	3
7	0.8BNTâ€“0.2BKT ferroelectric-based multimode energy harvester for self-powered body motion sensors. Nano Energy, 2021, 83, 105848.	16.0	7
8	Enhancing Hydrophobicity of Starch for Biodegradable Material-Based Triboelectric Nanogenerators. ACS Sustainable Chemistry and Engineering, 2021, 9, 9011-9017.	6.7	39
9	Ferroelectric flexible composite films based on morphotropic phase boundary for self-powered multisensors. Chemical Engineering Journal, 2021, 414, 128840.	12.7	9
10	Tailoring mechanical energy harvesting performance of piezoelectric nanogenerator via intrinsic electrical conductivity of ferroelectrics. Materials Today Energy, 2021, 20, 100679.	4.7	9
11	Remotely controlled self-powering electrical stimulators for osteogenic differentiation using bone inspired bioactive piezoelectric whitlockite nanoparticles. Nano Energy, 2021, 85, 105901.	16.0	43
12	Materials Beyond Conventional Triboelectric Series for Fabrication and Applications of Triboelectric Nanogenerators. Advanced Energy Materials, 2021, 11, 2101170.	19.5	122
13	Triboelectric nanogenerator using multiferroic materials: An approach for energy harvesting and self-powered magnetic field detection. Nano Energy, 2021, 85, 105964.	16.0	53
14	The morphotropic phase boundary based BCST ferroelectric system for water remediation through Bi-catalytic activity. Journal of Alloys and Compounds, 2021, 871, 159503.	5.5	11
15	Shape-dependent in-plane piezoelectric response of SnSe nanowall/microspheres. Nano Energy, 2021, 88, 106231.	16.0	10
16	Synergetic enhancement of energy harvesting performance in triboelectric nanogenerator using ferroelectric polarization for self-powered IR signaling and body activity monitoring. Journal of Materials Chemistry A, 2020, 8, 22257-22268.	10.3	44
17	ZIF-62: a mixed linker metalâ€“organic framework for triboelectric nanogenerators. Journal of Materials Chemistry A, 2020, 8, 17817-17825.	10.3	66
18	A lead-free ferroelectric Bi0.5Na0.5TiO3 based flexible, lightweight nanogenerator for motion monitoring applications. Sustainable Energy and Fuels, 2020, 4, 5636-5644.	4.9	13

#	Article	IF	Citations
19	Triboelectric nanogenerator for healthcare and biomedical applications. Nano Today, 2020, 33, 100882.	11.9	110
20	All in one transitional flow-based integrated self-powered catechol sensor using BiFeO3 nanoparticles. Sensors and Actuators B: Chemical, 2020, 320, 128417.	7.8	19
21	Substantial improvement on electrical energy harvesting by chemically modified/sandpaper-based surface modification in micro-scale for hybrid nanogenerators. Applied Surface Science, 2020, 514, 145904.	6.1	27
22	Aloe vera: A tropical desert plant to harness the mechanical energy by triboelectric and piezoelectric approaches. Nano Energy, 2020, 73, 104767.	16.0	38
23	Zeolitic Imidazole Framework: Metalâ€“Organic Framework Subfamily Members for Triboelectric Nanogenerators. Advanced Functional Materials, 2020, 30, 1910162.	14.9	94
24	All edible materials derived biocompatible and biodegradable triboelectric nanogenerator. Nano Energy, 2019, 65, 104016.	16.0	103
25	Self-powered ferroelectric NTC thermistor based on bismuth titanate. Nano Energy, 2019, 62, 329-337.	16.0	36
26	ZIFâ€8 Energy Harvester: Metalâ€“Organic Framework: A Novel Material for Triboelectric Nanogeneratorâ€“Based Selfâ€Powered Sensors and Systems (Adv. Energy Mater. 14/2019). Advanced Energy Materials, 2019, 9, 1970043.	19.5	3
27	Metalâ€“Organic Framework: A Novel Material for Triboelectric Nanogeneratorâ€“Based Selfâ€Powered Sensors and Systems. Advanced Energy Materials, 2019, 9, 1803581.	19.5	138
28	Lead-free piezoelectric nanogenerator using lightweight composite films for harnessing biomechanical energy. Composites Part B: Engineering, 2019, 161, 608-616.	12.0	39
29	Phase inversion enabled energy scavenger: A multifunctional triboelectric nanogenerator as benzene monitoring system. Sensors and Actuators B: Chemical, 2019, 282, 590-598.	7.8	36
30	Novel Interfacial Bulk Heterojunction Technique for Enhanced Response in ZnO Nanogenerator. ACS Applied Materials & Interfaces, 2019, 11, 6078-6088.	8.0	29
31	Trash to energy: A facile, robust and cheap approach for mitigating environment pollutant using household triboelectric nanogenerator. Applied Energy, 2018, 219, 338-349.	10.1	79
32	Role of Cationic Oxidation States to Enhance the Electroactive Î²â€Phase of Poly(vinylidene Fluoride) and its Energy Harvesting Performance. ChemElectroChem, 2018, 5, 3533-3539.	3.4	3
33	Sustainable yarn type-piezoelectric energy harvester as an eco-friendly, cost-effective battery-free breath sensor. Applied Energy, 2018, 228, 1767-1776.	10.1	43
34	One step synthesis of tin oxide nanomaterials and their sintering effect in dye degrdation. Optik, 2017, 135, 434-445.	2.9	10