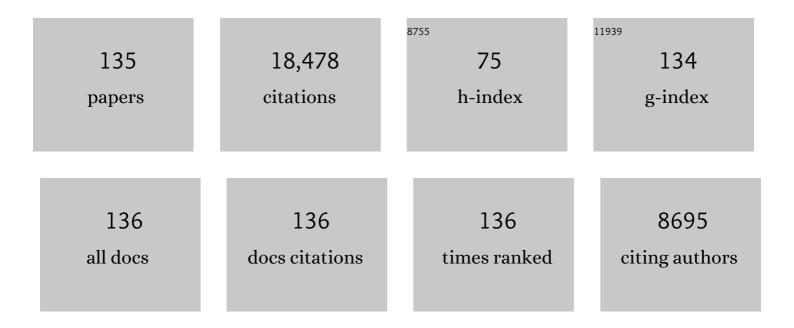
List of Publications by Year in descending order

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Ηενιάνι Ουο

#	Article	IF	CITATIONS
1	Triboelectric Nanogenerator: A Foundation of the Energy for the New Era. Advanced Energy Materials, 2019, 9, 1802906.	19.5	1,086
2	Self-powered textile for wearable electronics by hybridizing fiber-shaped nanogenerators, solar cells, and supercapacitors. Science Advances, 2016, 2, e1600097.	10.3	705
3	Harvesting Low-Frequency (<5 Hz) Irregular Mechanical Energy: A Possible Killer Application of Triboelectric Nanogenerator. ACS Nano, 2016, 10, 4797-4805.	14.6	606
4	A highly sensitive, self-powered triboelectric auditory sensor for social robotics and hearing aids. Science Robotics, 2018, 3, .	17.6	573
5	Networks of Triboelectric Nanogenerators for Harvesting Water Wave Energy: A Potential Approach toward Blue Energy. ACS Nano, 2015, 9, 3324-3331.	14.6	509
6	Eye motion triggered self-powered mechnosensational communication system using triboelectric nanogenerator. Science Advances, 2017, 3, e1700694.	10.3	491
7	Enhancing Performance of Triboelectric Nanogenerator by Filling High Dielectric Nanoparticles into Sponge PDMS Film. ACS Applied Materials & Interfaces, 2016, 8, 736-744.	8.0	474
8	Effective energy storage from a triboelectric nanogenerator. Nature Communications, 2016, 7, 10987.	12.8	407
9	Screen-Printed Washable Electronic Textiles as Self-Powered Touch/Gesture Tribo-Sensors for Intelligent Human–Machine Interaction. ACS Nano, 2018, 12, 5190-5196.	14.6	386
10	Integrated charge excitation triboelectric nanogenerator. Nature Communications, 2019, 10, 1426.	12.8	375
11	Singleâ€Threadâ€Based Wearable and Highly Stretchable Triboelectric Nanogenerators and Their Applications in Clothâ€Based Selfâ€Powered Humanâ€Interactive and Biomedical Sensing. Advanced Functional Materials, 2017, 27, 1604462.	14.9	327
12	A Highly Stretchable Fiberâ€Based Triboelectric Nanogenerator for Selfâ€Powered Wearable Electronics. Advanced Functional Materials, 2017, 27, 1604378.	14.9	296
13	All-in-One Shape-Adaptive Self-Charging Power Package for Wearable Electronics. ACS Nano, 2016, 10, 10580-10588.	14.6	290
14	Largely enhanced triboelectric nanogenerator for efficient harvesting of water wave energy by soft contacted structure. Nano Energy, 2019, 57, 432-439.	16.0	278
15	A highly shape-adaptive, stretchable design based on conductive liquid for energy harvesting and self-powered biomechanical monitoring. Science Advances, 2016, 2, e1501624.	10.3	274
16	Multifunctional TENG for Blue Energy Scavenging and Selfâ€Powered Wind‧peed Sensor. Advanced Energy Materials, 2017, 7, 1602397.	19.5	273
17	Blow-driven triboelectric nanogenerator as an active alcohol breath analyzer. Nano Energy, 2015, 16, 38-46.	16.0	255
18	Triboelectric nanogenerators for sensitive nano-coulomb molecular mass spectrometry. Nature Nanotechnology, 2017, 12, 481-487.	31.5	254

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19	Harvesting Broad Frequency Band Blue Energy by a Triboelectric–Electromagnetic Hybrid Nanogenerator. ACS Nano, 2016, 10, 6526-6534.	14.6	244
20	A Waterâ€Proof Triboelectric–Electromagnetic Hybrid Generator for Energy Harvesting in Harsh Environments. Advanced Energy Materials, 2016, 6, 1501593.	19.5	243
21	Super-robust and frequency-multiplied triboelectric nanogenerator for efficient harvesting water and wind energy. Nano Energy, 2019, 64, 103908.	16.0	239
22	A constant current triboelectric nanogenerator arising from electrostatic breakdown. Science Advances, 2019, 5, eaav6437.	10.3	237
23	3D double-faced interlock fabric triboelectric nanogenerator for bio-motion energy harvesting and as self-powered stretching and 3D tactile sensors. Materials Today, 2020, 32, 84-93.	14.2	226
24	Improving energy conversion efficiency for triboelectric nanogenerator with capacitor structure by maximizing surface charge density. Nanoscale, 2015, 7, 1896-1903.	5.6	222
25	Quantifying contact status and the air-breakdown model of charge-excitation triboelectric nanogenerators to maximize charge density. Nature Communications, 2020, 11, 1599.	12.8	216
26	Triboelectrificationâ€Enabled Selfâ€Powered Detection and Removal of Heavy Metal Ions in Wastewater. Advanced Materials, 2016, 28, 2983-2991.	21.0	204
27	Rotation sensing and gesture control of a robot joint via triboelectric quantization sensor. Nano Energy, 2018, 54, 453-460.	16.0	203
28	Ultralight Cut-Paper-Based Self-Charging Power Unit for Self-Powered Portable Electronic and Medical Systems. ACS Nano, 2017, 11, 4475-4482.	14.6	201
29	Paper-Based Triboelectric Nanogenerators Made of Stretchable Interlocking Kirigami Patterns. ACS Nano, 2016, 10, 4652-4659.	14.6	197
30	Allâ€Plasticâ€Materials Based Selfâ€Charging Power System Composed of Triboelectric Nanogenerators and Supercapacitors. Advanced Functional Materials, 2016, 26, 1070-1076.	14.9	190
31	High performance floating self-excited sliding triboelectric nanogenerator for micro mechanical energy harvesting. Nature Communications, 2021, 12, 4689.	12.8	186
32	Fully Packaged Blue Energy Harvester by Hybridizing a Rolling Triboelectric Nanogenerator and an Electromagnetic Generator. ACS Nano, 2016, 10, 11369-11376.	14.6	181
33	A Triboelectric Nanogeneratorâ€Based Smart Insole for Multifunctional Gait Monitoring. Advanced Materials Technologies, 2019, 4, 1800360.	5.8	181
34	Three-dimensional ultraflexible triboelectric nanogenerator made by 3D printing. Nano Energy, 2018, 45, 380-389.	16.0	178
35	Airflow-Induced Triboelectric Nanogenerator as a Self-Powered Sensor for Detecting Humidity and Airflow Rate. ACS Applied Materials & amp; Interfaces, 2014, 6, 17184-17189.	8.0	176
36	Direct Current Fabric Triboelectric Nanogenerator for Biomotion Energy Harvesting. ACS Nano, 2020, 14, 4585-4594.	14.6	170

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37	Human–Machine Interfacing Enabled by Triboelectric Nanogenerators and Tribotronics. Advanced Materials Technologies, 2019, 4, 1800487.	5.8	169
38	Oblate Spheroidal Triboelectric Nanogenerator for Allâ€Weather Blue Energy Harvesting. Advanced Energy Materials, 2019, 9, 1900801.	19.5	162
39	Ultrahigh Electricity Generation from Low-Frequency Mechanical Energy by Efficient Energy Management. Joule, 2021, 5, 441-455.	24.0	159
40	Boosting output performance of sliding mode triboelectric nanogenerator by charge space-accumulation effect. Nature Communications, 2020, 11, 4277.	12.8	158
41	Switched-capacitor-convertors based on fractal design for output power management of triboelectric nanogenerator. Nature Communications, 2020, 11, 1883.	12.8	154
42	A highly efficient triboelectric negative air ion generator. Nature Sustainability, 2021, 4, 147-153.	23.7	143
43	An Ultrarobust High-Performance Triboelectric Nanogenerator Based on Charge Replenishment. ACS Nano, 2015, 9, 5577-5584.	14.6	135
44	Traditional weaving craft for one-piece self-charging power textile for wearable electronics. Nano Energy, 2018, 50, 536-543.	16.0	135
45	High-efficiency ramie fiber degumming and self-powered degumming wastewater treatment using triboelectric nanogenerator. Nano Energy, 2016, 22, 548-557.	16.0	132
46	Self-Powered Triboelectric Micro Liquid/Gas Flow Sensor for Microfluidics. ACS Nano, 2016, 10, 8104-8112.	14.6	131
47	Self-driven power management system for triboelectric nanogenerators. Nano Energy, 2020, 71, 104642.	16.0	129
48	A nanogenerator for harvesting airflow energy and light energy. Journal of Materials Chemistry A, 2014, 2, 2079-2087.	10.3	126
49	Wearable triboelectric sensors for biomedical monitoring and human-machine interface. IScience, 2021, 24, 102027.	4.1	125
50	Sustainable and Biodegradable Wood Sponge Piezoelectric Nanogenerator for Sensing and Energy Harvesting Applications. ACS Nano, 2020, 14, 14665-14674.	14.6	124
51	Whirligig-inspired triboelectric nanogenerator with ultrahigh specific output as reliable portable instant power supply for personal health monitoring devices. Nano Energy, 2018, 47, 74-80.	16.0	122
52	Signal Output of Triboelectric Nanogenerator at Oil–Water–Solid Multiphase Interfaces and its Application for Dual‧ignal Chemical Sensing. Advanced Materials, 2019, 31, e1902793.	21.0	120
53	Superhydrophobic Cellulose Paperâ€Based Triboelectric Nanogenerator for Water Drop Energy Harvesting. Advanced Materials Technologies, 2020, 5, 2000454.	5.8	119
54	A Triboelectric Generator Based on Checkerâ€Like Interdigital Electrodes with a Sandwiched PET Thin Film for Harvesting Sliding Energy in All Directions. Advanced Energy Materials, 2015, 5, 1400790.	19.5	116

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55	All-in-one 3D acceleration sensor based on coded liquid–metal triboelectric nanogenerator for vehicle restraint system. Materials Today, 2021, 43, 37-44.	14.2	113
56	Automatic Mode Transition Enabled Robust Triboelectric Nanogenerators. ACS Nano, 2015, 9, 12334-12343.	14.6	111
57	Rationally designed rotation triboelectric nanogenerators with much extended lifetime and durability. Nano Energy, 2020, 68, 104378.	16.0	111
58	3D printed shape-programmable magneto-active soft matter for biomimetic applications. Composites Science and Technology, 2020, 188, 107973.	7.8	109
59	Energy Harvesting from Breeze Wind (0.7–6ÂmÂs ^{â^'1}) Using Ultraâ€6tretchable Triboelectric Nanogenerator. Advanced Energy Materials, 2020, 10, 2001770.	19.5	107
60	Embedding variable micro-capacitors in polydimethylsiloxane for enhancing output power of triboelectric nanogenerator. Nano Research, 2017, 10, 320-330.	10.4	106
61	Selfâ€Powered Iontophoretic Transdermal Drug Delivery System Driven and Regulated by Biomechanical Motions. Advanced Functional Materials, 2020, 30, 1907378.	14.9	105
62	An inductor-free auto-power-management design built-in triboelectric nanogenerators. Nano Energy, 2017, 31, 302-310.	16.0	104
63	Harvesting heat energy from hot/cold water with a pyroelectric generator. Journal of Materials Chemistry A, 2014, 2, 11940-11947.	10.3	101
64	Rolling Friction Enhanced Free‣tanding Triboelectric Nanogenerators and their Applications in Selfâ€Powered Electrochemical Recovery Systems. Advanced Functional Materials, 2016, 26, 1054-1062.	14.9	101
65	Robust Triboelectric Nanogenerator Achieved by Centrifugal Force Induced Automatic Working Mode Transition. Advanced Energy Materials, 2020, 10, 2000886.	19.5	100
66	Self-Powered Triboelectric Nanosensor for Microfluidics and Cavity-Confined Solution Chemistry. ACS Nano, 2015, 9, 11056-11063.	14.6	99
67	Selfâ€Powered Electronic Skin with Biotactile Selectivity. Advanced Materials, 2016, 28, 3549-3556.	21.0	97
68	A full-packaged rolling triboelectric-electromagnetic hybrid nanogenerator for energy harvesting and building up self-powered wireless systems. Nano Energy, 2019, 56, 300-306.	16.0	96
69	A Hybridized Triboelectric–Electromagnetic Water Wave Energy Harvester Based on a Magnetic Sphere. ACS Nano, 2019, 13, 2349-2356.	14.6	92
70	Rational Structure Optimized Hybrid Nanogenerator for Highly Efficient Water Wave Energy Harvesting. Advanced Energy Materials, 2019, 9, 1802892.	19.5	92
71	Hybridized nanogenerator based on honeycomb-like three electrodes for efficient ocean wave energy harvesting. Nano Energy, 2018, 47, 217-223.	16.0	89
72	Ternary Electrification Layered Architecture for High-Performance Triboelectric Nanogenerators. ACS Nano, 2020, 14, 9050-9058.	14.6	88

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73	Selfâ€Powered Electrochemical Synthesis of Polypyrrole from the Pulsed Output of a Triboelectric Nanogenerator as a Sustainable Energy System. Advanced Functional Materials, 2016, 26, 3542-3548.	14.9	87
74	Enhancing the Output Charge Density of TENG via Building Longitudinal Paths of Electrostatic Charges in the Contacting Layers. ACS Applied Materials & Interfaces, 2018, 10, 2158-2165.	8.0	83
75	Magnetic Array Assisted Triboelectric Nanogenerator Sensor for Real-Time Gesture Interaction. Nano-Micro Letters, 2021, 13, 51.	27.0	82
76	Concurrent Harvesting of Ambient Energy by Hybrid Nanogenerators for Wearable Self-Powered Systems and Active Remote Sensing. ACS Applied Materials & Interfaces, 2018, 10, 14708-14715.	8.0	78
77	Stretchable negative Poisson's ratio yarn for triboelectric nanogenerator for environmental energy harvesting and self-powered sensor. Energy and Environmental Science, 2021, 14, 955-964.	30.8	78
78	Rolling friction contact-separation mode hybrid triboelectric nanogenerator for mechanical energy harvesting and self-powered multifunctional sensors. Nano Energy, 2018, 47, 539-546.	16.0	77
79	TriboPump: A Lowâ€Cost, Handâ€Powered Water Disinfection System. Advanced Energy Materials, 2019, 9, 1901320.	19.5	74
80	Magnetorheological elastomers enabled high-sensitive self-powered tribo-sensor for magnetic field detection. Nanoscale, 2018, 10, 4745-4752.	5.6	73
81	A Flexible micro-supercapacitor based on a pen ink-carbon fiber thread. Journal of Materials Chemistry A, 2014, 2, 19665-19669.	10.3	69
82	Flexible triboelectric 3D touch pad with unit subdivision structure for effective XY positioning and pressure sensing. Nano Energy, 2020, 76, 105047.	16.0	69
83	An inverting TENG to realize the AC mode based on the coupling of triboelectrification and air-breakdown. Energy and Environmental Science, 2021, 14, 5395-5405.	30.8	67
84	Direct-Current Rotary-Tubular Triboelectric Nanogenerators Based on Liquid-Dielectrics Contact for Sustainable Energy Harvesting and Chemical Composition Analysis. ACS Nano, 2019, 13, 2587-2598.	14.6	66
85	Functionalized wood with tunable tribopolarity for efficient triboelectric nanogenerators. Matter, 2021, 4, 3049-3066.	10.0	66
86	A self-powered 2D barcode recognition system based on sliding mode triboelectric nanogenerator for personal identification. Nano Energy, 2018, 43, 253-258.	16.0	65
87	Surface charge density of triboelectric nanogenerators: Theoretical boundary and optimization methodology. Applied Materials Today, 2020, 18, 100496.	4.3	64
88	A fully-packaged and robust hybridized generator for harvesting vertical rotation energy in broad frequency band and building up self-powered wireless systems. Nano Energy, 2017, 33, 508-514.	16.0	63
89	Achieving Remarkable Charge Density via Selfâ€Polarization of Polar Highâ€ <i>k</i> Material in a Chargeâ€Excitation Triboelectric Nanogenerator. Advanced Materials, 2022, 34, e2109918.	21.0	63
90	Actuation and sensor integrated self-powered cantilever system based on TENG technology. Nano Energy, 2019, 64, 103920.	16.0	60

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91	A strategy to promote efficiency and durability for sliding energy harvesting by designing alternating magnetic stripe arrays in triboelectric nanogenerator. Nano Energy, 2019, 66, 104087.	16.0	60
92	2D piezotronics in atomically thin zinc oxide sheets: Interfacing gating and channel width gating. Nano Energy, 2019, 60, 724-733.	16.0	60
93	Electrohydrodynamic Jet Printing Driven by a Triboelectric Nanogenerator. Advanced Functional Materials, 2019, 29, 1901102.	14.9	59
94	Recent Advances towards Ocean Energy Harvesting and Selfâ€Powered Applications Based on Triboelectric Nanogenerators. Advanced Electronic Materials, 2021, 7, 2100277.	5.1	58
95	A flexible and wide pressure range triboelectric sensor array for real-time pressure detection and distribution mapping. Journal of Materials Chemistry A, 2020, 8, 23827-23833.	10.3	53
96	Self-doubled-rectification of triboelectric nanogenerator. Nano Energy, 2019, 66, 104165.	16.0	50
97	Flexible interdigital-electrodes-based triboelectric generators for harvesting sliding and rotating mechanical energy. Journal of Materials Chemistry A, 2014, 2, 19427-19434.	10.3	48
98	A Mobile and Selfâ€Powered Microâ€Flow Pump Based on Triboelectricity Driven Electroosmosis. Advanced Materials, 2021, 33, e2102765.	21.0	48
99	Freeâ€Fixed Rotational Triboelectric Nanogenerator for Selfâ€Powered Realâ€Time Wheel Monitoring. Advanced Materials Technologies, 2021, 6, 2000918.	5.8	46
100	Boost the Performance of Triboelectric Nanogenerators through Circuit Oscillation. Advanced Energy Materials, 2019, 9, 1900772.	19.5	44
101	Recent progresses on paperâ€based triboelectric nanogenerator for portable <scp>selfâ€powered</scp> sensing systems. EcoMat, 2020, 2, e12060.	11.9	44
102	A Highâ€Performance Bidirectional Direct Current TENG by Triboelectrification of Two Dielectrics and Local Corona Discharge. Advanced Energy Materials, 2022, 12, .	19.5	43
103	Instantaneous peak 2.1 W-level hybrid energy harvesting from human motions for self-charging battery-powered electronics. Nano Energy, 2021, 81, 105629.	16.0	41
104	Bionic Ultraâ€Sensitive Selfâ€Powered Electromechanical Sensor for Muscleâ€Triggered Communication Application. Advanced Science, 2021, 8, e2101020.	11.2	41
105	Spiral-interdigital-electrode-based multifunctional device: Dual-functional triboelectric generator and dual-functional self-powered sensor. Nano Energy, 2015, 12, 626-635.	16.0	39
106	Sub-nanoliter metabolomics via mass spectrometry to characterize volume-limited samples. Nature Communications, 2020, 11, 5625.	12.8	39
107	Hydrated ruthenium dioxides @ graphene based fiber supercapacitor for wearable electronics. Journal of Power Sources, 2019, 440, 227143.	7.8	35
108	Harvesting ambient mechanical energy by multiple mode triboelectric nanogenerator with charge excitation for self-powered freight train monitoring. Nano Energy, 2021, 90, 106543.	16.0	35

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109	Interface Static Friction Enabled Ultraâ€Durable and High Output Sliding Mode Triboelectric Nanogenerator. Advanced Functional Materials, 2022, 32, .	14.9	34
110	Double-induced-mode integrated triboelectric nanogenerator based on spring steel to maximize space utilization. Nano Research, 2016, 9, 3355-3363.	10.4	32
111	Fish gills inspired parallel-cell triboelectric nanogenerator. Nano Energy, 2022, 95, 106976.	16.0	29
112	On the material-dependent charge transfer mechanism of the contact electrification. Nano Energy, 2020, 78, 105343.	16.0	27
113	Honeycomb-like three electrodes based triboelectric generator for harvesting energy in full space and as a self-powered vibration alertor. Nano Energy, 2015, 15, 766-775.	16.0	26
114	Triboelectric nanogenerator based on magnetically induced retractable spring steel tapes for efficient energy harvesting of large amplitude motion. Nano Research, 2018, 11, 633-641.	10.4	25
115	Ti-Doped Tunnel-Type Na ₄ Mn ₉ O ₁₈ Nanoparticles as Novel Anode Materials for High-Performance Supercapacitors. ACS Applied Materials & Interfaces, 2019, 11, 28900-28908.	8.0	23
116	Theoretical investigation of air breakdown direct current triboelectric nanogenerator. Applied Physics Letters, 2020, 116, .	3.3	23
117	Self-Powered Active Spherical Triboelectric Sensor for Fluid Velocity Detection. IEEE Nanotechnology Magazine, 2020, 19, 230-235.	2.0	22
118	Constructing high output performance triboelectric nanogenerator via V-shape stack and self-charge excitation. Nano Energy, 2022, 96, 107068.	16.0	22
119	Ultrahigh Performance Triboelectric Nanogenerator Enabled by Charge Transmission in Interfacial Lubrication and Potential Decentralization Design. Research, 2022, 2022, .	5.7	22
120	Notepad-like Triboelectric Generator for Efficiently Harvesting Low-Velocity Motion Energy by Interconversion between Kinetic Energy and Elastic Potential Energy. ACS Applied Materials & Interfaces, 2015, 7, 1275-1283.	8.0	20
121	Enhancing the performance of NaNbO ₃ triboelectric nanogenerators by dielectric modulation and electronegative modification. Journal Physics D: Applied Physics, 2018, 51, 015303.	2.8	20
122	Highly Durable and Easily Integrable Triboelectric Foam for Active Sensing and Energy Harvesting Applications. Advanced Materials Technologies, 2021, 6, .	5.8	19
123	Timing strategy for boosting energy extraction from triboelectric nanogenerators. Nano Energy, 2021, 85, 105956.	16.0	18
124	WGUs sensor based on integrated wind-induced generating units for 360° wind energy harvesting and self-powered wind velocity sensing. RSC Advances, 2017, 7, 23208-23214.	3.6	17
125	Triboelectric Nanogenerators for Harvesting Wind Energy: Recent Advances and Future Perspectives. Energies, 2021, 14, 6949.	3.1	17
126	Interface Defect Detection and Identification of Triboelectric Nanogenerators via Voltage Waveforms and Artificial Neural Network. ACS Applied Materials & amp; Interfaces, 2022, 14, 3437-3445.	8.0	17

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127	A Novel Triboelectric Generator Based on the Combination of a Waterwheel‣ike Electrode with a Spring Steel Plate For Efficient Harvesting of Lowâ€Velocity Rotational Motion Energy. Advanced Electronic Materials, 2016, 2, 1500448.	5.1	16
128	Tribo-electrophoresis preconcentration enhanced ultra-sensitive SERS detection. Nano Energy, 2022, 98, 107239.	16.0	16
129	Effect of Particle Size in Aggregates of ZnO-Aggregate-Based Dye-Sensitized Solar Cells. Electrochimica Acta, 2014, 120, 23-29.	5.2	15
130	Sunlightâ€Triggerable Transient Energy Harvester and Sensors Based on Triboelectric Nanogenerator Using Acidâ€5ensitive Poly(phthalaldehyde). Advanced Electronic Materials, 2019, 5, 1900725.	5.1	15
131	Effect of architectures assembled by one dimensional ZnO nanostructures on performance of CdS quantum dot-sensitized solar cells. Electrochimica Acta, 2014, 115, 487-492.	5.2	11
132	Novel Spiral-Like Electrode Structure Design for Realization of Two Modes of Energy Harvesting. ACS Applied Materials & Interfaces, 2015, 7, 16450-16457.	8.0	11
133	Large-Area Triboelectric Nanogenerator Mass Spectrometry: Expanded Coverage, Double-Bond Pinpointing, and Supercharging. Journal of the American Society for Mass Spectrometry, 2020, 31, 727-734.	2.8	10
134	A Hybrid Generator with Electromagnetic Transduction for Improving the Power Density of Triboelectric Nanogenerators and Scavenging Wind Energy. Advanced Materials Technologies, 2022, 7,	5.8	6
135	Biotactile Sensors: Selfâ€Powered Electronic Skin with Biotactile Selectivity (Adv. Mater. 18/2016). Advanced Materials, 2016, 28, 3414-3414.	21.0	2