

# Vincent Ch Lee

## List of PR Articles by Year in descending order

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Version: 2025-02-01

475

PR articles

32,287

PR citations

1504

93

PR h-index

2839

170

g-index

665

documents

38102

doc citations

1560

102

h-index

20266

citing authors

#	ARTICLE	IF	PR CITATIONS
1	Artificial Intelligence-Enhanced Mid-Infrared Lab-on-a-Chip for Mixture Spectroscopy Analysis. <i>Laser and Photonics Reviews</i> , 2025, 19, .	9.2	20
2	Near-Field Coupling Induced Less Chiral Responses in Chiral Metamaterials for Surface-Enhanced Vibrational Circular Dichroism. <i>Advanced Functional Materials</i> , 2024, 34, .	17.0	25
3	Advances in Machine Learning Enhanced Nanosensors: From Cloud Artificial Intelligence Toward Future Edge Computing at Chip Level. <i>Small Structures</i> , 2024, 5, .	11.1	73
4	Fiber-Based Noncontact Sensor with Stretchability for Underwater Wearable Sensing and VR Applications. <i>ACS Nano</i> , 2024, 18, 600-611.	15.3	37
5	Advances and Applications of Metal-Organic Frameworks (MOFs) in Emerging Technologies: A Comprehensive Review. <i>Global Challenges</i> , 2024, 8, .	4.7	223
6	All-organic transparent plant e-skin for noninvasive phenotyping. <i>Science Advances</i> , 2024, 10, .	11.0	54
7	Multimodal Sensors Enabled Autonomous Soft Robotic System with Self-Adaptive Manipulation. <i>ACS Nano</i> , 2024, 18, 9980-9996.	15.3	81
8	Cavity-agnostic acoustofluidic manipulations enabled by guided flexural waves on a membrane acoustic waveguide actuator. <i>Microsystems and Nanoengineering</i> , 2024, 10, .	8.6	6
9	Environmentally Robust Triboelectric Tire Monitoring System for Self-Powered Driving Information Recognition via Hybrid Deep Learning in Time-Frequency Representation. <i>Small</i> , 2024, 20, .	11.6	23
10	Ultra-compact and high-performance suspended aluminum scandium nitride Lamb wave humidity sensor with a graphene oxide layer. <i>Nanoscale</i> , 2024, 16, 10230-10238.	5.0	9
11	Artificial Intelligence-Enhanced Waveguide Photonic Nose-Augmented Sensing Platform for VOC Gases in Mid-Infrared. <i>Small</i> , 2024, 20, .	11.6	27
12	Thin-Film Piezoelectric Micromachined Ultrasound Transducers in Biomedical Applications: A Review. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2024, 71, 622-637.	2.6	19
13	AI-enhanced health management system using soft and stretchable triboelectric sensors for human behavior monitoring. <i>EcoMat</i> , 2024, 6, .	11.6	40
14	Recent Progress in Blue Energy Harvesting Based on Triboelectric Nanogenerators. <i>Nanoenergy Advances</i> , 2024, 4, 156-173.	4.6	17
15	High-performance and wavelength-transplantable on-chip Fourier transform spectrometer using MEMS in-plane reconfiguration. <i>Photonics Research</i> , 2024, 12, 1730.	6.5	7
16	Water droplets play a role in Internet of Things applications. <i>Droplet</i> , 2024, 3, .	8.7	13
17	Surface plasmons-phonons for mid-infrared hyperspectral imaging. <i>Science Advances</i> , 2024, 10, .	11.0	32
18	Augmented Tactile Perception of Robotic Fingers Enabled by AI-Enhanced Triboelectric Multimodal Sensors. <i>Advanced Functional Materials</i> , 2024, 34, .	17.0	45

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19	Bionic e-skin with precise multi-directional droplet sliding sensing for enhanced robotic perception. Nature Communications, 2024, 15, .	13.9	37
20	Development of Photonic In-Sensor Computing Based on a Mid-Infrared Silicon Waveguide Platform. ACS Nano, 2024, 18, 22938-22948.	15.3	22
21	Artificial Intelligence-Enhanced "Photonic Nose" for Mid-Infrared Spectroscopic Analysis of Trace Volatile Organic Compound Mixtures. Advanced Optical Materials, 2024, 12, .	7.0	16
22	Self-Sustained Artificial Internet of Things Based on Vibration Energy Harvesting Technology: Toward the Future Eco-Society. Advanced Energy and Sustainability Research, 2024, 5, .	5.5	33
23	Ultrahigh electromechanical response from competing ferroic orders. Nature, 2024, 633, 798-803.	38.7	39
24	Tactile Sensing and Rendering Patch with Dynamic and Static Sensing and Haptic Feedback for Immersive Communication. ACS Applied Materials & Interfaces, 2024, 16, 53207-53219.	8.0	16
25	Multimodal In-Sensor Computing System Using Integrated Silicon Photonic Convolutional Processor. Advanced Science, 2024, 11, .	12.7	17
26	Robust triboelectric information-mat enhanced by multi-modality deep learning for smart home. Informa An-Materi-ly, 2023, 5, .	20.9	74
27	A facile frequency tuning strategy to realize vibration-based hybridized piezoelectric-triboelectric nanogenerators. EcoMat, 2023, 5, .	11.6	25
28	Machine learning-augmented surface-enhanced spectroscopy toward next-generation molecular diagnostics. Nanoscale Advances, 2023, 5, 538-570.	4.5	102
29	Triboelectric Nanogenerator Enabled Wearable Sensors and Electronics for Sustainable Internet of Things Integrated Green Earth. Advanced Energy Materials, 2023, 13, .	22.6	248
30	Vibration energy harvester with double frequency-up conversion mechanism for self-powered sensing system in smart city. Nano Energy, 2023, 105, 108030.	16.3	53
31	Mid-Infrared Silicon-Lithium-Niobate Electro-Optic Modulators Toward Integrated Spectroscopic Sensing Systems. Advanced Optical Materials, 2023, 11, .	7.0	36
32	Water-Modulated Biomimetic Hyper-Attribute-Gel Electronic Skin for Robotics and Skin-Attachable Wearables. ACS Nano, 2023, 17, 1355-1371.	15.3	137
33	Emerging Wearable Chemical Sensors Enabling Advanced Integrated Systems toward Personalized and Preventive Medicine. Analytical Chemistry, 2023, 95, 490-514.	6.5	61
34	Midinfrared Spectroscopic Analysis of Aqueous Mixtures Using Artificial-Intelligence-Enhanced Metamaterial Waveguide Sensing Platform. ACS Nano, 2023, 17, 711-724.	15.3	58
35	Microfabricated acoustofluidic membrane acoustic waveguide actuator for highly localized in-droplet dynamic particle manipulation. Lab on A Chip, 2023, 23, 1865-1878.	5.2	16
36	Zero-Bias Long-Wave Infrared Nanoantenna-Mediated Graphene Photodetector for Polarimetric and Spectroscopic Sensing. Advanced Optical Materials, 2023, 11, .	7.0	28

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37	Soft Robotic Perception System with Ultrasonic Auto-Positioning and Multimodal Sensory Intelligence. ACS Nano, 2023, 17, 4985-4998.	15.3	131
38	Technology Roadmap for Flexible Sensors. ACS Nano, 2023, 17, 5211-5295.	15.3	1,075
39	Intelligent Cubic-Designed Piezoelectric Node (iCUPE) with Simultaneous Sensing and Energy Harvesting Ability toward Self-Sustained Artificial Intelligence of Things (AIoT). ACS Nano, 2023, 17, 6435-6451.	15.3	70
40	Recent Advances in Artificial Intelligence Sensors. Advanced Sensor Research, 2023, 2, .	3.1	74
41	Evolution of Micro-Nano Energy Harvesting Technologyâ€”Scavenging Energy from Diverse Sources towards Self-Sustained Micro/Nano Systems. Nanoenergy Advances, 2023, 3, 101-125.	4.6	27
42	Ultrasensitive Molecular Fingerprint Retrieval Using Strongly Detuned Overcoupled Plasmonic Nanoantennas. Advanced Materials, 2023, 35, .	24.5	41
43	Stretchable helical fibers with skin-core structure for pressure and proximity sensing. Nano Energy, 2023, 113, 108598.	16.3	32
44	Expanding chiral metamaterials for retrieving fingerprints via vibrational circular dichroism. Light: Science and Applications, 2023, 12, .	20.0	59
45	Triboelectric-induced ion mobility for artificial intelligence-enhanced mid-infrared gas spectroscopy. Nature Communications, 2023, 14, .	13.9	36
46	Tissueâ€”Adhesive Piezoelectric Soft Sensor for In Vivo Blood Pressure Monitoring During Surgical Operation. Advanced Functional Materials, 2023, 33, .	17.0	77
47	Research Progress in Surface-Enhanced Infrared Absorption Spectroscopy: From Performance Optimization, Sensing Applications, to System Integration. Nanomaterials, 2023, 13, 2377.	4.0	35
48	Artificial intelligence enhanced sensors - enabling technologies to next-generation healthcare and biomedical platform. Bioelectronic Medicine, 2023, 9, .	4.5	212
49	Thin-film PMUTs: a review of over 40 years of research. Microsystems and Nanoengineering, 2023, 9, .	8.6	134
50	Recent Progress in Siliconâ€”Based Photonic Integrated Circuits and Emerging Applications. Advanced Optical Materials, 2023, 11, .	7.0	92
51	Capping Layer Effects on Sb <sub>2</sub> S <sub>3</sub> -Based Reconfigurable Photonic Devices. ACS Photonics, 2023, 10, 3203-3214.	6.0	20
52	Mid-infrared integrated electro-optic modulators: a review. Nanophotonics, 2023, 12, 3683-3706.	6.2	22
53	A multifunctional helical fiber operated in non-contact/contact dual-mode sensing aiming for HMI/VR applications. Nano Energy, 2023, 117, 108903.	16.3	15
54	Dynamic construction of refractive index-dependent vibrations using surface plasmon-phonon polaritons. Nature Communications, 2023, 14, .	13.9	36

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55	A Natural Gradient Biological-Enabled Multimodal Triboelectric Nanogenerator for Driving Safety Monitoring. <i>ACS Nano</i> , 2023, 17, 21878-21892.	15.3	16
56	Piezoelectric MEMS" evolution from sensing technology to diversified applications in the 5G/Internet of Things (IoT) era. <i>Journal of Micromechanics and Microengineering</i> , 2022, 32, 014005.	1.9	102
57	Subwavelength on-chip light focusing with bigradient all-dielectric metamaterials for dense photonic integration. <i>Informa" Materilly</i> , 2022, 4, .	20.9	33
58	Wearable Triboelectric Sensors Enabled Gait Analysis and Waist Motion Capture for IoT-Based Smart Healthcare Applications. <i>Advanced Science</i> , 2022, 9, .	12.7	299
59	Dielectric-elastomer-enhanced triboelectric nanogenerator with amplified outputs. <i>Sensors and Actuators A: Physical</i> , 2022, 333, 113270.	4.5	17
60	Scalable self-attaching/assembling robotic cluster (S2A2RC) system enabled by triboelectric sensors for in-orbit spacecraft application. <i>Nano Energy</i> , 2022, 93, 106894.	16.3	35
61	Biometrics-protected optical communication enabled by deep learning-enhanced triboelectric/photonic synergistic interface. <i>Science Advances</i> , 2022, 8, .	11.0	72
62	Reconfigurable terahertz metamaterials: From fundamental principles to advanced 6G applications. <i>IScience</i> , 2022, 25, 103799.	3.6	94
63	Constructing highly tribopositive elastic yarn through interfacial design and assembly for efficient energy harvesting and human-interactive sensing. <i>Nano Energy</i> , 2022, 94, 106956.	16.3	51
64	Artificial Intelligence-Enabled Sensing Technologies in the 5G/Internet of Things Era: From Virtual Reality/Augmented Reality to the Digital Twin. <i>Advanced Intelligent Systems</i> , 2022, 4, .	5.6	351
65	A Non-Resonant Piezoelectric"Electromagnetic"Triboelectric Hybrid Energy Harvester for Low-Frequency Human Motions. <i>Nanomaterials</i> , 2022, 12, 1168.	4.0	29
66	Progress of Advanced Devices and Internet of Things Systems as Enabling Technologies for Smart Homes and Health Care. <i>ACS Materials Au</i> , 2022, 2, 394-435.	6.8	71
67	Triboelectric nanogenerator as next-generation self-powered sensor for cooperative vehicle-infrastructure system. <i>Nano Energy</i> , 2022, 97, 107219.	16.3	109
68	Advanced Implantable Biomedical Devices Enabled by Triboelectric Nanogenerators. <i>Nanomaterials</i> , 2022, 12, 1366.	4.0	70
69	A flexible self-perceiving/repairing parachute (FSPRP) system adapted to the Martian dust storm environment. <i>Nano Energy</i> , 2022, 99, 107358.	16.3	13
70	Noncontact Human"Machine Interface Using Complementary Information Fusion Based on MEMS and Triboelectric Sensors. <i>Advanced Science</i> , 2022, 9, .	12.7	74
71	Deep Learning-Assisted Triboelectric Smart Mats for Personnel Comprehensive Monitoring toward Maritime Safety. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 24832-24839.	8.0	36
72	Controlling of spatial modes in multi-mode photonic crystal nanobeam cavity. <i>Optics Express</i> , 2022, 30, 21764.	3.0	9

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73	Inkjet 3D Printed MEMS Electromagnetic Multi-Frequency Energy Harvester. <i>Energies</i> , 2022, 15, 4468.	3.0	7
74	Four-channel display and encryption by near-field reflection on nanoprinting metasurface. <i>Nanophotonics</i> , 2022, 11, 3365-3374.	6.2	54
75	MEMS-Enabled On-Chip Computational Mid-Infrared Spectrometer Using Silicon Photonics. <i>ACS Photonics</i> , 2022, 9, 2367-2377.	6.0	76
76	Larger-Than-Unity External Optical Field Confinement Enabled by Metamaterial-Assisted Comb Waveguide for Ultrasensitive Long-Wave Infrared Gas Spectroscopy. <i>Nano Letters</i> , 2022, 22, 6112-6120.	8.7	73
77	Loss-induced phase transition in mid-infrared plasmonic metamaterials for ultrasensitive vibrational spectroscopy. <i>Informa-An-Materi-ly</i> , 2022, 4, .	20.9	50
78	Wavelength-multiplexed hook nanoantennas for machine learning enabled mid-infrared spectroscopy. <i>Nature Communications</i> , 2022, 13, .	13.9	112
79	Enabling Active Nanotechnologies by Phase Transition: From Electronics, Photonics to Thermotics. <i>Chemical Reviews</i> , 2022, 122, 15450-15500.	52.7	37
80	Soft Modular Glove with Multimodal Sensing and Augmented Haptic Feedback Enabled by Materials's™ Multifunctionalities. <i>ACS Nano</i> , 2022, 16, 14097-14110.	15.3	127
81	Augmented tactile-perception and haptic-feedback rings as human-machine interfaces aiming for immersive interactions. <i>Nature Communications</i> , 2022, 13, .	13.9	431
82	Mid-infrared silicon photonic phase shifter based on microelectromechanical system. <i>Optics Letters</i> , 2022, 47, 5801.	3.0	13
83	Geometric filterless photodetectors for mid-infrared spin light. <i>Nature Photonics</i> , 2022, , .	29.6	78
84	Self-sustained autonomous wireless sensing based on a hybridized TENG and PEG vibration mechanism. <i>Nano Energy</i> , 2021, 80, 105555.	16.3	131
85	Technology evolution from self-powered sensors to AIoT enabled smart homes. <i>Nano Energy</i> , 2021, 79, 105414.	16.3	285
86	Hybridized wearable patch as a multi-parameter and multi-functional human-machine interface. <i>Nano Energy</i> , 2021, 81, 105582.	16.3	94
87	Making use of nanoenergy from human " Nanogenerator and self-powered sensor enabled sustainable wireless IoT sensory systems. <i>Nano Today</i> , 2021, 36, 101016.	10.0	266
88	Toward Healthcare Diagnoses by Machine-Learning-Enabled Volatile Organic Compound Identification. <i>ACS Nano</i> , 2021, 15, 894-903.	15.3	118
89	Hybrid energy harvesting technology: From materials, structural design, system integration to applications. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 137, 110473.	16.7	337
90	Flourishing energy harvesters for future body sensor network: from single to multiple energy sources. <i>IScience</i> , 2021, 24, 101934.	3.6	91

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91	Shadow enhanced self-charging power system for wave and solar energy harvesting from the ocean. Nature Communications, 2021, 12, .	13.9	120
92	Electrochemically Exfoliated Platinum Dichalcogenide Atomic Layers for High-Performance Air-Stable Infrared Photodetectors. ACS Applied Materials & Interfaces, 2021, 13, 8518-8527.	8.0	43
93	Triboelectric Nanogenerators and Hybridized Systems for Enabling Next-Generation IoT Applications. Research, 2021, 2021, .	7.9	118
94	Corner-Promoted Focus Enhancement of Light in Conical Holes for Extraordinary Optical Transmission. IEEE Sensors Journal, 2021, 21, 9081-9089.	3.7	4
95	Optimization of MEMS Vibration Energy Harvester With Perforated Electrode. Journal of Microelectromechanical Systems, 2021, 30, 299-308.	2.0	24
96	Progress in micro/nano sensors and nanoenergy for future AIoT-based smart home applications. Nano Express, 2021, 2, 022005.	2.5	101
97	A high-performance triboelectric-electromagnetic hybrid wind energy harvester based on rotational tapered rollers aiming at outdoor IoT applications. IScience, 2021, 24, 102300.	3.6	88
98	Suspended silicon waveguide platform with subwavelength grating metamaterial cladding for long-wave infrared sensing applications. Nanophotonics, 2021, 10, 1861-1870.	6.2	77
99	Mid-infrared semimetal polarization detectors with configurable polarity transition. Nature Photonics, 2021, 15, 614-621.	29.6	190
100	Low cost exoskeleton manipulator using bidirectional triboelectric sensors enhanced multiple degree of freedom sensory system. Nature Communications, 2021, 12, .	13.9	175
101	All in One, Self-Powered Bionic Artificial Nerve Based on a Triboelectric Nanogenerator. Advanced Science, 2021, 8, .	12.7	38
102	Artificial Intelligence of Things (AIoT) Enabled Virtual Shop Applications Using Self-Powered Sensor Enhanced Soft Robotic Manipulator. Advanced Science, 2021, 8, .	12.7	242
103	Autonomously Adhesive, Stretchable, and Transparent Solid-State Polyionic Triboelectric Patch for Wearable Power Source and Tactile Sensor. Advanced Functional Materials, 2021, 31, .	17.0	89
104	Heterogeneously Integrated Graphene/Silicon/Halide Waveguide Photodetectors toward Chip-Scale Zero-Bias Long-Wave Infrared Spectroscopic Sensing. ACS Nano, 2021, 15, 10084-10094.	15.3	72
105	Infrared Plasmonic Biosensor with Tetrahedral DNA Nanostructure as Carriers for Label-Free and Ultrasensitive Detection of miR-155. Advanced Science, 2021, 8, .	12.7	86
106	A hybridized electromagnetic-triboelectric nanogenerator designed for scavenging biomechanical energy in human balance control. Nano Research, 2021, 14, 4227-4235.	8.6	42
107	Volatile organic compounds sensing based on Bennet doubler-inspired triboelectric nanogenerator and machine learning-assisted ion mobility analysis. Science Bulletin, 2021, 66, 1176-1185.	9.6	80
108	Artificial Intelligence-Enabled Caregiving Walking Stick Powered by Ultra-Low-Frequency Human Motion. ACS Nano, 2021, 15, 19054-19069.	15.3	141

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109	Heterogeneous Wafer Bonding Technology and Thin-Film Transfer Technology-Enabling Platform for the Next Generation Applications beyond 5G. <i>Micromachines</i> , 2021, 12, 946.	2.6	61
110	Technology evolution from micro-scale energy harvesters to nanogenerators. <i>Journal of Micromechanics and Microengineering</i> , 2021, 31, 093002.	1.9	74
111	Multifunctional Chemical Sensing Platform Based on Dual-Resonant Infrared Plasmonic Perfect Absorber for On-Chip Detection of Poly(ethyl cyanoacrylate). <i>Advanced Science</i> , 2021, 8, .	12.7	57
112	Magnetic-interaction assisted hybridized triboelectric-electromagnetic nanogenerator for advanced human-machine interfaces. <i>Nano Energy</i> , 2021, 86, 106154.	16.3	63
113	Machine learning-enabled textile-based graphene gas sensing with energy harvesting-assisted IoT application. <i>Nano Energy</i> , 2021, 86, 106035.	16.3	134
114	A Motion Capturing and Energy Harvesting Hybridized Lower-Limb System for Rehabilitation and Sports Applications. <i>Advanced Science</i> , 2021, 8, .	12.7	126
115	Cascaded, self-calibrated, single-pixel mid-infrared Hadamard transform spectrometer. <i>Optics Express</i> , 2021, 29, 34600.	3.0	11
116	Progress in the Triboelectric Human-Machine Interfaces (HMIs)-Moving from Smart Gloves to AI/Haptic Enabled HMI in the 5G/IoT Era. <i>Nanoenergy Advances</i> , 2021, 1, 81-120.	4.6	91
117	AI enabled sign language recognition and VR space bidirectional communication using triboelectric smart glove. <i>Nature Communications</i> , 2021, 12, .	13.9	425
118	Terahertz MEMS metadevices. <i>Journal of Micromechanics and Microengineering</i> , 2021, 31, 113001.	1.9	61
119	Promoting smart cities into the 5G era with multi-field Internet of Things (IoT) applications powered with advanced mechanical energy harvesters. <i>Nano Energy</i> , 2021, 88, 106304.	16.3	338
120	Development of triboelectric-enabled tunable Fabry-Pérot photonic-crystal-slab filter towards wearable mid-infrared computational spectrometer. <i>Nano Energy</i> , 2021, 89, 106446.	16.3	49
121	Self-sustainable flow-velocity detection via electromagnetic/triboelectric hybrid generator aiming at IoT-based environment monitoring. <i>Nano Energy</i> , 2021, 90, 106501.	16.3	64
122	Mid-infrared modulators integrating silicon and black phosphorus photonics. <i>Materials Today Advances</i> , 2021, 12, 100170.	5.1	25
123	Artificial intelligence of toilet (AI-Toilet) for an integrated health monitoring system (IHMS) using smart triboelectric pressure sensors and image sensor. <i>Nano Energy</i> , 2021, 90, 106517.	16.3	123
124	Contactless tracking of humans using non-contact triboelectric sensing technology: Enabling new assistive applications for the elderly and the visually impaired. <i>Nano Energy</i> , 2021, 90, 106486.	16.3	74
125	An underwater flag-like triboelectric nanogenerator for harvesting ocean current energy under extremely low velocity condition. <i>Nano Energy</i> , 2021, 90, 106503.	16.3	124
126	Suspended Silicon Waveguide with Sub-Wavelength Grating Cladding for Optical MEMS in Mid-Infrared. <i>Micromachines</i> , 2021, 12, 1311.	2.6	18

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127	Artificial Intelligence of Things (AIoT) Enabled Floor Monitoring System for Smart Home Applications. ACS Nano, 2021, 15, 18312-18326.	15.3	154
128	Progress of optomechanical micro/nano sensors: a review. International Journal of Optomechatronics, 2021, 15, 120-159.	1.9	103
129	Recent Progress in the Energy Harvesting Technologyâ€”From Self-Powered Sensors to Self-Sustained IoT, and New Applications. Nanomaterials, 2021, 11, 2975.	4.0	155
130	Evolving Flexible Sensors, Wearable and Implantable Technologies Towards BodyNET for Advanced Healthcare and Reinforced Life Quality. IEEE Open Journal of Circuits and Systems, 2021, 2, 702-720.	1.7	78
131	A humidity resistant and high performance triboelectric nanogenerator enabled by vortex-induced vibration for scavenging wind energy. Nano Research, 2021, 15, 3246-3253.	8.6	62
132	Leveraging of MEMS Technologies for Optical Metamaterials Applications. Advanced Optical Materials, 2020, 8, .	7.0	189
133	Battery-free short-range self-powered wireless sensor network (SS-WSN) using TENG based direct sensory transmission (TDST) mechanism. Nano Energy, 2020, 67, 104266.	16.3	142
134	Self-powered control interface based on Gray code with hybrid triboelectric and photovoltaics energy harvesting for IoT smart home and access control applications. Nano Energy, 2020, 70, 104456.	16.3	136
135	Switchable textile-triboelectric nanogenerators (S-TENGs) for continuous profile sensing application without environmental interferences. Nano Energy, 2020, 69, 104462.	16.3	41
136	A comprehensive study of non-linear air damping and â€œpull-inâ€ effects on the electrostatic energy harvesters. Energy Conversion and Management, 2020, 203, 112264.	10.6	136
137	Development Trends and Perspectives of Future Sensors and MEMS/NEMS. Micromachines, 2020, 11, 7.	2.6	361
138	Progress in TENG technologyâ€”A journey from energy harvesting to nanoenergy and nanosystem. EcoMat, 2020, 2, .	11.6	314
139	A Review and Perspective for the Development of Triboelectric Nanogenerator (TENG)-Based Self-Powered Neuroprosthetics. Micromachines, 2020, 11, 865.	2.6	34
140	Independent and grouped 3D cell rotation in a microfluidic device for bioimaging applications. Biosensors and Bioelectronics, 2020, 170, 112661.	9.6	19
141	Programmed-triboelectric nanogeneratorsâ€”A multi-switch regulation methodology for energy manipulation. Nano Energy, 2020, 78, 105241.	16.3	43
142	Progress in wearable electronics/photronicsâ€”Moving toward the era of artificial intelligence and internet of things. Informa Mater, 2020, 2, 1131-1162.	20.9	586
143	Smart materials for smart healthcareâ€” moving from sensors and actuators to self-sustained nanoenergy nanosystems. Smart Materials in Medicine, 2020, 1, 92-124.	9.0	121
144	Advances in chemical sensing technology for enabling the next-generation self-sustainable integrated wearable system in the IoT era. Nano Energy, 2020, 78, 105155.	16.3	145

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145	Triboelectric nanogenerator sensors for soft robotics aiming at digital twin applications. Nature Communications, 2020, 11, .	13.9	599
146	Deep learning-enabled triboelectric smart socks for IoT-based gait analysis and VR applications. Npj Flexible Electronics, 2020, 4, .	13.9	367
147	Technologies toward next generation human machine interfaces: From machine learning enhanced tactile sensing to neuromorphic sensory systems. Applied Physics Reviews, 2020, 7, .	10.4	268
148	Deep learning enabled smart mats as a scalable floor monitoring system. Nature Communications, 2020, 11, .	13.9	288
149	Metal-Organic Framework-Surface-Enhanced Infrared Absorption Platform Enables Simultaneous On-Chip Sensing of Greenhouse Gases. Advanced Science, 2020, 7, .	12.7	126
150	Nanometer-Scale Heterogeneous Interfacial Sapphire Wafer Bonding for Enabling Plasmonic-Enhanced Nanofluidic Mid-Infrared Spectroscopy. ACS Nano, 2020, 14, 12159-12172.	15.3	90
151	Recent progress on peripheral neural interface technology towards bioelectronic medicine. Bioelectronic Medicine, 2020, 6, .	4.5	50
152	Zero-bias mid-infrared graphene photodetectors with bulk photoresponse and calibration-free polarization detection. Nature Communications, 2020, 11, .	13.9	199
153	Haptic-feedback smart glove as a creative human-machine interface (HMI) for virtual/augmented reality applications. Science Advances, 2020, 6, .	11.0	688
154	High-Responsivity Mid-Infrared Black Phosphorus Slow Light Waveguide Photodetector. Advanced Optical Materials, 2020, 8, .	7.0	112
155	Unveiling Stimulation Secrets of Electrical Excitation of Neural Tissue Using a Circuit Probability Theory. Frontiers in Computational Neuroscience, 2020, 14, .	2.0	7
156	Wearable Triboelectric-Human-Machine Interface (THMI) Using Robust Nanophotonic Readout. ACS Nano, 2020, 14, 8915-8930.	15.3	164
157	Wearable Triboelectric/Aluminum Nitride Nano-Energy-Nano-System with Self-Sustainable Photonic Modulation and Continuous Force Sensing. Advanced Science, 2020, 7, .	12.7	81
158	Machine Learning Glove Using Self-Powered Conductive Superhydrophobic Triboelectric Textile for Gesture Recognition in VR/AR Applications. Advanced Science, 2020, 7, .	12.7	431
159	Inkjet 3D Printed MEMS Vibrational Electromagnetic Energy Harvester. Energies, 2020, 13, 2800.	3.0	23
160	An epidermal sEMG tattoo-like patch as a new human-machine interface for patients with loss of voice. Microsystems and Nanoengineering, 2020, 6, .	8.6	130
161	Self-powered eye motion sensor based on triboelectric interaction and near-field electrostatic induction for wearable assistive technologies. Nano Energy, 2020, 72, 104675.	16.3	119
162	Highly Compact Linear Variable Filter in the Mid Infrared Region for Acetone Level Monitoring. IEEE Sensors Journal, 2020, 20, 4171-4178.	3.7	9

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163	A novel hybridized blue energy harvester aiming at all-weather IoT applications. Nano Energy, 2020, 76, 105052.	16.3	118
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