Vincent Ch Lee

List of Publications by Year in Descending Order

487 papers	15,137 citations	64 h-index	93 g-index
619 ext. papers	20,378 ext. citations	6.9 avg, IF	7.57 L-index

#	Paper	IF	Citations
487	Biometrics-protected optical communication enabled by deep learning-enhanced triboelectric/photonic synergistic interface.. *Science Advances*, **2022**, 8, eabl9874	14.3	7
486	Reconfigurable terahertz metamaterials: From fundamental principles to advanced 6G applications.. *IScience*, **2022**, 25, 103799	6.1	4
485	Constructing highly tribopositive elastic yarn through interfacial design and assembly for efficient energy harvesting and human-interactive sensing. *Nano Energy*, **2022**, 94, 106956	17.1	2
484	Scalable self-attaching/assembling robotic cluster (S2A2RC) system enabled by triboelectric sensors for in-orbit spacecraft application. *Nano Energy*, **2022**, 93, 106894	17.1	1
483	Evolution of Wafer Bonding Technology and Applications from Wafer-Level Packaging to Micro/Nanofluidics-Enhanced Sensing **2022**, 187-215		
482	Triboelectric nanogenerator as next-generation self-powered sensor for cooperative vehicle-infrastructure system. *Nano Energy*, **2022**, 97, 107219	17.1	5
481	A humidity resistant and high performance triboelectric nanogenerator enabled by vortex-induced vibration for scavenging wind energy. *Nano Research*, **2022**, 15, 3246-3253	10	2
480	A Flexible Self-Perceiving/Repairing Parachute (FSPRP) System adapted to the Martian Dust Storm Environment. *Nano Energy*, **2022**, 107358	17.1	0
479	Noncontact Human-Machine Interface Using Complementary Information Fusion Based on MEMS and Triboelectric Sensors.. *Advanced Science*, **2022**, e2201056	13.6	4
478	Recent Progress in the Energy Harvesting Technology-From Self-Powered Sensors to Self-Sustained IoT, and New Applications. *Nanomaterials*, **2021**, 11,	5.4	12
477	Wearable Triboelectric Sensors Enabled Gait Analysis and Waist Motion Capture for IoT-Based Smart Healthcare Applications. *Advanced Science*, **2021**, e2103694	13.6	20
476	Dielectric-elastomer-enhanced triboelectric nanogenerator with amplified outputs. *Sensors and Actuators A: Physical*, **2021**, 333, 113270	3.9	2
475	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	9
474	Suspended Silicon Waveguide with Sub-Wavelength Grating Cladding for Optical MEMS in Mid-Infrared. *Micromachines*, **2021**, 12,	3.3	2
473	Artificial Intelligence of Things (AIoT) Enabled Floor Monitoring System for Smart Home Applications. *ACS Nano*, **2021**,	16.7	16
472	Progress of optomechanical micro/nano sensors: a review. *International Journal of Optomechatronics*, **2021**, 15, 120-159	3.5	4
471	Corner-Promoted Focus Enhancement of Light in Conical Holes for Extraordinary Optical Transmission. *IEEE Sensors Journal*, **2021**, 21, 9081-9089	4	0

470	Optimization of MEMS Vibration Energy Harvester With Perforated Electrode. *Journal of Microelectromechanical Systems*, **2021**, 30, 299-308	2.5	3
469	Progress in micro/nano sensors and nanoenergy for future AIoT-based smart home applications. *Nano Express*, **2021**, 2, 022005	2	15
468	A high-performance triboelectric-electromagnetic hybrid wind energy harvester based on rotational tapered rollers aiming at outdoor IoT applications. *IScience*, **2021**, 24, 102300	6.1	19
467	Suspended silicon waveguide platform with subwavelength grating metamaterial cladding for long-wave infrared sensing applications. *Nanophotonics*, **2021**,	6.3	14
466	Mid-infrared semimetal polarization detectors with configurable polarity transition. *Nature Photonics*, **2021**, 15, 614-621	33.9	22
465	Low cost exoskeleton manipulator using bidirectional triboelectric sensors enhanced multiple degree of freedom sensory system. *Nature Communications*, **2021**, 12, 2692	17.4	42
464	All in One, Self-Powered Bionic Artificial Nerve Based on a Triboelectric Nanogenerator. *Advanced Science*, **2021**, 8, 2004727	13.6	11
463	Artificial Intelligence of Things (AIoT) Enabled Virtual Shop Applications Using Self-Powered Sensor Enhanced Soft Robotic Manipulator. *Advanced Science*, **2021**, 8, e2100230	13.6	41
462	Autonomously Adhesive, Stretchable, and Transparent Solid-State Polyionic Triboelectric Patch for Wearable Power Source and Tactile Sensor. *Advanced Functional Materials*, **2021**, 31, 2104365	15.6	12
461	Heterogeneously Integrated Graphene/Silicon/Halide Waveguide Photodetectors toward Chip-Scale Zero-Bias Long-Wave Infrared Spectroscopic Sensing. *ACS Nano*, **2021**, 15, 10084-10094	16.7	10
460	Infrared Plasmonic Biosensor with Tetrahedral DNA Nanostructure as Carriers for Label-Free and Ultrasensitive Detection of miR-155. *Advanced Science*, **2021**, 8, e2100583	13.6	10
459	A hybridized electromagnetic-triboelectric nanogenerator designed for scavenging biomechanical energy in human balance control. *Nano Research*, **2021**, 14, 4227	10	13
458	Volatile organic compounds sensing based on Bennet doubler-inspired triboelectric nanogenerator and machine learning-assisted ion mobility analysis. *Science Bulletin*, **2021**, 66, 1176-1185	10.6	18
457	Self-sustained autonomous wireless sensing based on a hybridized TENG and PEG vibration mechanism. *Nano Energy*, **2021**, 80, 105555	17.1	32
456	Technology evolution from self-powered sensors to AIoT enabled smart homes. *Nano Energy*, **2021**, 79, 105414	17.1	77
455	Hybridized wearable patch as a multi-parameter and multi-functional human-machine interface. *Nano Energy*, **2021**, 81, 105582	17.1	36
454	Making use of nanoenergy from human Nanogenerator and self-powered sensor enabled sustainable wireless IoT sensory systems. *Nano Today*, **2021**, 36, 101016	17.9	79
453	Toward Healthcare Diagnoses by Machine-Learning-Enabled Volatile Organic Compound Identification. *ACS Nano*, **2021**, 15, 894-903	16.7	29

452	Hybrid energy harvesting technology: From materials, structural design, system integration to applications. *Renewable and Sustainable Energy Reviews*, **2021**, 137, 110473	16.2	63
451	Flourishing energy harvesters for future body sensor network: from single to multiple energy sources. *IScience*, **2021**, 24, 101934	6.1	35
450	Shadow enhanced self-charging power system for wave and solar energy harvesting from the ocean. *Nature Communications*, **2021**, 12, 616	17.4	23
449	Electrochemically Exfoliated Platinum Dichalcogenide Atomic Layers for High-Performance Air-Stable Infrared Photodetectors. *ACS Applied Materials & Interfaces*, **2021**, 13, 8518-8527	9.5	9
448	Triboelectric Nanogenerators and Hybridized Systems for Enabling Next-Generation IoT Applications. *Research*, **2021**, 2021, 6849171	7.8	26
447	Artificial Intelligence-Enabled Caregiving Walking Stick Powered by Ultra-Low-Frequency Human Motion. *ACS Nano*, **2021**,	16.7	25
446	Heterogeneous Wafer Bonding Technology and Thin-Film Transfer Technology-Enabling Platform for the Next Generation Applications beyond 5G. *Micromachines*, **2021**, 12,	3.3	14
445	Technology evolution from micro-scale energy harvesters to nanogenerators. *Journal of Micromechanics and Microengineering*, **2021**, 31, 093002	2	25
444	Multifunctional Chemical Sensing Platform Based on Dual-Resonant Infrared Plasmonic Perfect Absorber for On-Chip Detection of Poly(ethyl cyanoacrylate). *Advanced Science*, **2021**, 8, e2101879	13.6	5
443	Magnetic-interaction assisted hybridized triboelectric-electromagnetic nanogenerator for advanced human-machine interfaces. *Nano Energy*, **2021**, 86, 106154	17.1	15
442	Machine learning-enabled textile-based graphene gas sensing with energy harvesting-assisted IoT application. *Nano Energy*, **2021**, 86, 106035	17.1	22
441	A Motion Capturing and Energy Harvesting Hybridized Lower-Limb System for Rehabilitation and Sports Applications. *Advanced Science*, **2021**, 8, e2101834	13.6	16
440	Cascaded, self-calibrated, single-pixel mid-infrared Hadamard transform spectrometer. *Optics Express*, **2021**, 29, 34600-34615	3.3	0
439	Progress in the Triboelectric Human□Machine Interfaces (HMIs)-Moving from Smart Gloves to AI/Haptic Enabled HMI in the 5G/IoT Era. *Nanoenergy Advances*, **2021**, 1, 81-121		17
438	AI enabled sign language recognition and VR space bidirectional communication using triboelectric smart glove. *Nature Communications*, **2021**, 12, 5378	17.4	46
437	Terahertz MEMS metadevices. *Journal of Micromechanics and Microengineering*, **2021**, 31, 113001	2	9
436	Promoting smart cities into the 5G era with multi-field Internet of Things (IoT) applications powered with advanced mechanical energy harvesters. *Nano Energy*, **2021**, 88, 106304	17.1	49
435	Development of triboelectric-enabled tunable Fabry-P□ot photonic-crystal-slab filter towards wearable mid-infrared computational spectrometer. *Nano Energy*, **2021**, 89, 106446	17.1	8

434	Self-sustainable flow-velocity detection via electromagnetic/triboelectric hybrid generator aiming at IoT-based environment monitoring. *Nano Energy*, **2021**, 90, 106501	17.1	10
433	Mid-infrared modulators integrating silicon and black phosphorus photonics. *Materials Today Advances*, **2021**, 12, 100170	7.4	0
432	Artificial intelligence of toilet (AI-Toilet) for an integrated health monitoring system (IHMS) using smart triboelectric pressure sensors and image sensor. *Nano Energy*, **2021**, 90, 106517	17.1	12
431	Contactless tracking of humans using non-contact triboelectric sensing technology: Enabling new assistive applications for the elderly and the visually impaired. *Nano Energy*, **2021**, 90, 106486	17.1	9
430	An underwater flag-like triboelectric nanogenerator for harvesting ocean current energy under extremely low velocity condition. *Nano Energy*, **2021**, 90, 106503	17.1	22
429	Zero-bias mid-infrared graphene photodetectors with bulk photoresponse and calibration-free polarization detection. *Nature Communications*, **2020**, 11, 6404	17.4	37
428	Haptic-feedback smart glove as a creative human-machine interface (HMI) for virtual/augmented reality applications. *Science Advances*, **2020**, 6, eaaz8693	14.3	177
427	High-Responsivity Mid-Infrared Black Phosphorus Slow Light Waveguide Photodetector. *Advanced Optical Materials*, **2020**, 8, 2000337	8.1	27
426	Unveiling Stimulation Secrets of Electrical Excitation of Neural Tissue Using a Circuit Probability Theory. *Frontiers in Computational Neuroscience*, **2020**, 14, 50	3.5	2
425	Wearable Triboelectric-Human-Machine Interface (THMI) Using Robust Nanophotonic Readout. *ACS Nano*, **2020**, 14, 8915-8930	16.7	63
424	Wearable Triboelectric/Aluminum Nitride Nano-Energy-Nano-System with Self-Sustainable Photonic Modulation and Continuous Force Sensing. *Advanced Science*, **2020**, 7, 1903636	13.6	38
423	Machine Learning Glove Using Self-Powered Conductive Superhydrophobic Triboelectric Textile for Gesture Recognition in VR/AR Applications. *Advanced Science*, **2020**, 7, 2000261	13.6	127
422	Inkjet 3D Printed MEMS Vibrational Electromagnetic Energy Harvester. *Energies*, **2020**, 13, 2800	3.1	10
421	An epidermal sEMG tattoo-like patch as a new human-machine interface for patients with loss of voice. *Microsystems and Nanoengineering*, **2020**, 6, 16	7.7	33
420	Self-powered eye motion sensor based on triboelectric interaction and near-field electrostatic induction for wearable assistive technologies. *Nano Energy*, **2020**, 72, 104675	17.1	49
419	Highly Compact Linear Variable Filter in the Mid Infrared Region for Acetone Level Monitoring. *IEEE Sensors Journal*, **2020**, 20, 4171-4178	4	1
418	A novel hybridized blue energy harvester aiming at all-weather IoT applications. *Nano Energy*, **2020**, 76, 105052	17.1	50
417	Recent progress in nanoplasmonics-based integrated optical micro/nano-systems. *Journal Physics D: Applied Physics*, **2020**, 53, 213001	3	27

416	Continuous direct current by charge transportation for next-generation IoT and real-time virtual reality applications. *Nano Energy*, **2020**, 73, 104760	17.1	34
415	Multi-Band Mid-IR Molecules Identification Using Plasmonic Metamaterials Induced by Bright-Dark Coupling **2020**,		1
414	Frequency-Agile Temporal Terahertz Metamaterials. *Advanced Optical Materials*, **2020**, 8, 2000101	8.1	20
413	Progress of infrared guided-wave nanophotonic sensors and devices. *Nano Convergence*, **2020**, 7, 12	9.2	34
412	Integration of MEMS IR detectors with MIR waveguides for sensing applications. *Optics Express*, **2020**, 28, 11524-11537	3.3	15
411	Vernier effect-based tunable mid-infrared sensor using silicon-on-insulator cascaded rings. *Optics Express*, **2020**, 28, 6251-6260	3.3	18
410	Demonstration of mid-infrared slow light one-dimensional photonic crystal ring resonator with high-order photonic bandgap. *Optics Express*, **2020**, 28, 30736-30747	3.3	6
409	Multifunctional mid-infrared photonic switch using a MEMS-based tunable waveguide coupler. *Optics Letters*, **2020**, 45, 5620-5623	3	7
408	Metamaterials from fundamentals and MEMS tuning mechanisms to applications. *Nanophotonics*, **2020**, 9, 3049-3070	6.3	21
407	Doped Silicon Temperature Compensation of Surface Acoustic Wave Devices **2020**,		3
406	Metamaterial technologies for miniaturized infrared spectroscopy: Light sources, sensors, filters, detectors, and integration. *Journal of Applied Physics*, **2020**, 128, 240901	2.5	11
405	Battery-free short-range self-powered wireless sensor network (SS-WSN) using TENG based direct sensory transmission (TDST) mechanism. *Nano Energy*, **2020**, 67, 104266	17.1	52
404	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	17.1	63
403	Switchable textile-triboelectric nanogenerators (S-TENGs) for continuous profile sensing application without environmental interferences. *Nano Energy*, **2020**, 69, 104462	17.1	22
402	A comprehensive study of non-linear air damping and pull-in effects on the electrostatic energy harvesters. *Energy Conversion and Management*, **2020**, 203, 112264	10.6	57
401	Progress in TENG technology—A journey from energy harvesting to nanoenergy and nanosystem. *EcoMat*, **2020**, 2, e12058	9.4	57
400	A Review and Perspective for the Development of Triboelectric Nanogenerator (TENG)-Based Self-Powered Neuroprosthetics. *Micromachines*, **2020**, 11,	3.3	14
399	Independent and grouped 3D cell rotation in a microfluidic device for bioimaging applications. *Biosensors and Bioelectronics*, **2020**, 170, 112661	11.8	2

398	Programmed-triboelectric nanogenerators: A multi-switch regulation methodology for energy manipulation. *Nano Energy*, **2020**, 78, 105241	17.1	24
397	Progress in wearable electronics/photonics: Moving toward the era of artificial intelligence and internet of things. *InformaMater*, **2020**, 2, 1131-1162	23.1	143
396	Smart materials for smart healthcare: moving from sensors and actuators to self-sustained nanoenergy nanosystems. *Smart Materials in Medicine*, **2020**, 1, 92-124	12.9	41
395	Advances in chemical sensing technology for enabling the next-generation self-sustainable integrated wearable system in the IoT era. *Nano Energy*, **2020**, 78, 105155	17.1	59
394	Triboelectric nanogenerator sensors for soft robotics aiming at digital twin applications. *Nature Communications*, **2020**, 11, 5381	17.4	133
393	Deep learning-enabled triboelectric smart socks for IoT-based gait analysis and VR applications. *Npj Flexible Electronics*, **2020**, 4,	10.7	76
392	Technologies toward next generation human machine interfaces: From machine learning enhanced tactile sensing to neuromorphic sensory systems. *Applied Physics Reviews*, **2020**, 7, 031305	17.3	84
391	Deep learning enabled smart mats as a scalable floor monitoring system. *Nature Communications*, **2020**, 11, 4609	17.4	92
390	Metal-Organic Framework-Surface-Enhanced Infrared Absorption Platform Enables Simultaneous On-Chip Sensing of Greenhouse Gases. *Advanced Science*, **2020**, 7, 2001173	13.6	23
389	Nanometer-Scale Heterogeneous Interfacial Sapphire Wafer Bonding for Enabling Plasmonic-Enhanced Nanofluidic Mid-Infrared Spectroscopy. *ACS Nano*, **2020**, 14, 12159-12172	16.7	22
388	Recent progress on peripheral neural interface technology towards bioelectronic medicine. *Bioelectronic Medicine*, **2020**, 6, 23	5.4	15
387	Leveraging of MEMS Technologies for Optical Metamaterials Applications. *Advanced Optical Materials*, **2020**, 8, 1900653	8.1	81
386	Direct Stimulation of Bladder Pelvic Nerve using Battery-Free Neural Clip Interface **2019**,		6
385	Development of neural interfaces and energy harvesters towards self-powered implantable systems for healthcare monitoring and rehabilitation purposes. *Nano Energy*, **2019**, 65, 104039	17.1	61
384	Thermally Reflowed Die-Attached Linear Variable Optical Filter for Mid-Infrared Volatile Organic Compounds Detection. *Journal of Microelectromechanical Systems*, **2019**, 28, 824-832	2.5	0
383	Self-powered glove-based intuitive interface for diversified control applications in real/cyber space. *Nano Energy*, **2019**, 58, 641-651	17.1	89
382	Self-powered multifunctional monitoring system using hybrid integrated triboelectric nanogenerators and piezoelectric microsensors. *Nano Energy*, **2019**, 58, 612-623	17.1	58
381	Direct muscle stimulation using diode-amplified triboelectric nanogenerators (TENGs). *Nano Energy* , **2019**, 63, 103844	17.1	50

380	Self-Powered Bio-Inspired Spider-Net-Coding Interface Using Single-Electrode Triboelectric Nanogenerator. *Advanced Science*, **2019**, 6, 1900617	13.6	89
379	Versatile microfluidic platform embedded with sidewall three-dimensional electrodes for cell manipulation. *Biomedical Physics and Engineering Express*, **2019**, 5, 055003	1.5	7
378	Investigation of Low-Current Direct Stimulation for Rehabilitation Treatment Related to Muscle Function Loss Using Self-Powered TENG System. *Advanced Science*, **2019**, 6, 1900149	13.6	58
377	Minimalist and multi-functional human machine interface (HMI) using a flexible wearable triboelectric patch. *Nano Energy*, **2019**, 62, 355-366	17.1	92
376	A Motion-Balanced Sensor Based on the Triboelectricity of Nano-iron Suspension and Flexible Polymer. *Nanomaterials*, **2019**, 9,	5.4	8
375	Mechanism and Applications of Electrical Stimulation Disturbance on Motoneuron Excitability Studied Using Flexible Intramuscular Electrode. *Advanced Biology*, **2019**, 3, e1800281	3.5	7
374	Coexistence of air and dielectric modes in single nanocavity. *Optics Express*, **2019**, 27, 14085-14098	3.3	11
373	High-Performance, Room Temperature, Ultra-Broadband Photodetectors Based on Air-Stable PdSe. *Advanced Materials*, **2019**, 31, e1807609	24	135
372	Self-Powered Direct Muscle Stimulation Using a Triboelectric Nanogenerator (TENG) Integrated with a Flexible Multiple-Channel Intramuscular Electrode. *ACS Nano*, **2019**, 13, 3589-3599	16.7	77
371	Deposited poly-Si as on-demand linewidth compensator for on-chip Fabry–Perot interferometer and vertical linear variable optical filter bandpass and passband manipulation. *Journal of Micromechanics and Microengineering*, **2019**, 29, 047001	2	3
370	Intuitive-augmented human-machine multidimensional nano-manipulation terminal using triboelectric stretchable strip sensors based on minimalist design. *Nano Energy*, **2019**, 60, 440-448	17.1	34
369	Mechano-neuromodulation of autonomic pelvic nerve for underactive bladder: A triboelectric neurostimulator integrated with flexible neural clip interface. *Nano Energy*, **2019**, 60, 449-456	17.1	46
368	Triboelectric single-electrode-output control interface using patterned grid electrode. *Nano Energy* , **2019**, 60, 545-556	17.1	44
367	From flexible electronics technology in the era of IoT and artificial intelligence toward future implanted body sensor networks. *APL Materials*, **2019**, 7, 031302	5.7	73
366	Self-Powered and Self-Functional Cotton Sock Using Piezoelectric and Triboelectric Hybrid Mechanism for Healthcare and Sports Monitoring. *ACS Nano*, **2019**, 13, 1940-1952	16.7	144
365	A rotational pendulum based electromagnetic/triboelectric hybrid-generator for ultra-low-frequency vibrations aiming at human motion and blue energy applications. *Nano Energy*, **2019**, 63, 103871	17.1	92
364	MIR plasmonic liquid sensing in nano-metric space driven by capillary force. *Journal Physics D: Applied Physics*, **2019**, 52, 394001	3	12
363	Sensors and Control Interface Methods Based on Triboelectric Nanogenerator in IoT Applications. *IEEE Access*, **2019**, 7, 92745-92757	3.5	36

362	Liquid-metal-elastomer foam for moldable multi-functional triboelectric energy harvesting and force sensing. *Nano Energy*, **2019**, 64, 103912	17.1	23
361	Study of thin film blue energy harvester based on triboelectric nanogenerator and seashore IoT applications. *Nano Energy*, **2019**, 66, 104167	17.1	66
360	Self-Sustainable Wearable Textile Nano-Energy Nano-System (NENS) for Next-Generation Healthcare Applications. *Advanced Science*, **2019**, 6, 1901437	13.6	108
359	Surface-Enhanced Infrared Absorption-Based CO2 Sensor using Photonic Crystal Slab **2019**,		1
358	Thermal annealing study of the mid-infrared aluminum nitride on insulator (AlNOI) photonics platform. *Optics Express*, **2019**, 27, 19815-19826	3.3	10
357	Ultra-small photonic crystal (PhC)-based test tool for gas permeability of polymers. *Optics Express*, **2019**, 27, 35600-35608	3.3	5
356	Aluminum nitride on insulator (AlNOI) platform for mid-infrared photonics. *Optics Letters*, **2019**, 44, 73-76	3	25
355	Anomalous plasmon hybridization in nanoantennas near interfaces. *Optics Letters*, **2019**, 44, 6041-6044	3	10
354	Development Trends and Perspectives of Future Sensors and MEMS/NEMS. *Micromachines*, **2019**, 11,	3.3	74
353	First Demonstration of Waveguide-Integrated Black Phosphorus Electro-Optic Modulator for Mid-Infrared Beyond 4 □m **2019**,		1
352	Ultrasensitive Transmissive Infrared Spectroscopy via Loss Engineering of Metallic Nanoantennas for Compact Devices. *ACS Applied Materials & Interfaces*, **2019**, 11, 47270-47278	9.5	20
351	Black Phosphorus Based Photodetectors. *ACS Symposium Series*, **2019**, 135-153	0.4	3
350	Waveguide-Integrated Black Phosphorus Photodetector for Mid-Infrared Applications. *ACS Nano*, **2019**, 13, 913-921	16.7	96
349	Beyond energy harvesting - multi-functional triboelectric nanosensors on a textile. *Nano Energy*, **2019**, 57, 338-352	17.1	119
348	Investigation of Broadband Characteristics of Multi-Frequency Piezoelectric Micromachined Ultrasonic Transducer (MF-pMUT). *IEEE Sensors Journal*, **2019**, 19, 860-867	4	20
347	More than energy harvesting □Combining triboelectric nanogenerator and flexible electronics technology for enabling novel micro-/nano-systems. *Nano Energy*, **2019**, 57, 851-871	17.1	177
346	A self-powered 3D activity inertial sensor using hybrid sensing mechanisms. *Nano Energy*, **2019**, 56, 651-661	17.1	33
345	Hybrid Metamaterial Absorber Platform for Sensing of CO Gas at Mid-IR. *Advanced Science*, **2018**, 5, 1700581	13.1	80

344	Piezoelectric micromachined ultrasonic transducers with low thermoelastic dissipation and high quality factor. *Journal of Micromechanics and Microengineering*, **2018**, 28, 057001	2	14
343	Graphene Tunable Plasmon–Phonon Coupling in Mid-IR Complementary Metamaterial. *Advanced Materials Technologies*, **2018**, 3, 1800014	6.8	18
342	. *IEEE Journal of Selected Topics in Quantum Electronics*, **2018**, 24, 1-8	3.8	13
341	Towards low-loss waveguides in SOI and Ge-on-SOI for mid-IR sensing. *Journal of Physics Communications*, **2018**, 2, 045029	1.2	7
340	Toward Self-Control Systems for Neurogenic Underactive Bladder: A Triboelectric Nanogenerator Sensor Integrated with a Bistable Micro-Actuator. *ACS Nano*, **2018**, 12, 3487-3501	16.7	61
339	A Black Phosphorus Carbide Infrared Phototransistor. *Advanced Materials*, **2018**, 30, 1705039	24	75
338	Electret-material enhanced triboelectric energy harvesting from air flow for self-powered wireless temperature sensor network. *Sensors and Actuators A: Physical*, **2018**, 271, 364-372	3.9	57
337	Mid-Infrared Slow Light Engineering and Tuning in 1-D Grating Waveguide. *IEEE Journal of Selected Topics in Quantum Electronics*, **2018**, 24, 1-8	3.8	10
336	Battery-free neuromodulator for peripheral nerve direct stimulation. *Nano Energy*, **2018**, 50, 148-158	17.1	63
335	Novel augmented reality interface using a self-powered triboelectric based virtual reality 3D-control sensor. *Nano Energy*, **2018**, 51, 162-172	17.1	47
334	A Self-Powered Six-Axis Tactile Sensor by Using Triboelectric Mechanism. *Nanomaterials*, **2018**, 8,	5.4	11
333	Investigation of the Temperature Fluctuation of Single-Phase Fluid Based Microchannel Heat Sink. *Sensors*, **2018**, 18,	3.8	3
332	(Invited) Mid-IR Metamaterial Absorber Platform for Gas and Chemical Sensing Applications. *ECS Transactions*, **2018**, 85, 93-98	1	0
331	Investigation of Position Sensing and Energy Harvesting of a Flexible Triboelectric Touch Pad. *Nanomaterials*, **2018**, 8,	5.4	21
330	Nanofluidic terahertz metasensor for sensing in aqueous environment. *Applied Physics Letters*, **2018** , 113, 071105	3.4	63
329	Controlling Surface Charge Generated by Contact Electrification: Strategies and Applications. *Advanced Materials*, **2018**, 30, e1802405	24	81
328	A modified abstraction of Sierpiński fractals towards enhanced sensitivity of a cross-coupled bow-tie nanostructure. *Nano Futures*, **2018**, 2, 025005	3.6	7
327	Efficient and broadband subwavelength grating coupler for 3.7 μm mid-infrared silicon photonics integration. *Optics Express*, **2018**, 26, 26242-26256	3.3	17

326	Deterministic aperiodic photonic crystal nanobeam supporting adjustable multiple mode-matched resonances. *Optics Letters*, **2018**, 43, 5407-5410	3	19
325	Dispersion engineering and thermo-optic tuning in mid-infrared photonic crystal slow light waveguides on silicon-on-insulator. *Optics Letters*, **2018**, 43, 5504-5507	3	25
324	Novel Augmented Reality/Virtual Reality Interface Using A Self-Powered Triboelectric-Based Virtual Reality 3D Control Sensor **2018**,		1
323	A Highly Selective 3D Spiked Ultraflexible Neural (SUN) Interface for Decoding Peripheral Nerve Sensory Information. *Advanced Healthcare Materials*, **2018**, 7, 1700987	10.1	26
322	Design and Anchorage Dependence of Shape Memory Alloy Actuators on Enhanced Voiding of a Bladder. *Advanced Materials Technologies*, **2018**, 3, 1700184	6.8	9
321	A Clear, Delicate, Biocompatible Optical Window for Brain Imaging **2018**,		1
320	Batteryless neural interface using triboelectric nanogenerators (TENGs) to enable a self-sustainable platform for neuromodulation. *Journal of Physics: Conference Series*, **2018**, 1052, 012007	0.3	4
319	Hydrogel as a Nerve Guide and Biocompatible Glue for Neural Applications **2018**,		2
318	Triboelectric Balls as Three-Dimensional Vibrational Energy Harvesters and Self-Powered Sensors **2018**,		1
317	Wavelength-Flattened Directional Coupler Based Mid-Infrared Chemical Sensor Using Bragg Wavelength in Subwavelength Grating Structure. *Nanomaterials*, **2018**, 8,	5.4	26
316	Integration of 2D Black Phosphorus Phototransistor and Silicon Photonics Waveguide System Towards Mid-Infrared On-Chip Sensing Applications **2018**,		1
315	A non-resonant rotational electromagnetic energy harvester for low-frequency and irregular human motion. *Applied Physics Letters*, **2018**, 113, 203901	3.4	85
314	A comprehensive review on piezoelectric energy harvesting technology: Materials, mechanisms, and applications. *Applied Physics Reviews*, **2018**, 5, 041306	17.3	316
313	Batteryless Pelvic Nerve Direct Modulation for Bladder Voding Using an Active Neural Clip **2018**,		2
312	Development of a Highly Sensitive Humidity Sensor Based on a Piezoelectric Micromachined Ultrasonic Transducer Array Functionalized with Graphene Oxide Thin Film. *Sensors*, **2018**, 18,	3.8	20
311	Reconfigurable MEMS Fano metasurfaces with multiple-input-output states for logic operations at terahertz frequencies. *Nature Communications*, **2018**, 9, 4056	17.4	124
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