# Woon-Hong Yeo

## List of Publications by Citations



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|---|---|---|---|
| 113 papers | 5,881 citations | 28 h-index | 75 g-index |
| 138 ext. papers | 7,246 ext. citations | 9.5 avg, IF | 5.88 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 113 | Ultrathin conformal devices for precise and continuous thermal characterization of human skin. *Nature Materials*, **2013**, 12, 938-44 | 27 | 826 |
| 112 | Fractal design concepts for stretchable electronics. *Nature Communications*, **2014**, 5, 3266 | 17.4 | 625 |
| 111 | Multifunctional epidermal electronics printed directly onto the skin. *Advanced Materials*, **2013**, 25, 2773-8 | 24 | 590 |
| 110 | Materials and optimized designs for human-machine interfaces via epidermal electronics. *Advanced Materials*, **2013**, 25, 6839-46 | 24 | 509 |
| 109 | Advanced Soft Materials, Sensor Integrations, and Applications of Wearable Flexible Hybrid Electronics in Healthcare, Energy, and Environment. *Advanced Materials*, **2020**, 32, e1901924 | 24 | 305 |
| 108 | Rugged and breathable forms of stretchable electronics with adherent composite substrates for transcutaneous monitoring. *Nature Communications*, **2014**, 5, 4779 | 17.4 | 245 |
| 107 | Soft, curved electrode systems capable of integration on the auricle as a persistent brain-computer interface. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 3920-5 | 11.5 | 238 |
| 106 | Experimental and Theoretical Studies of Serpentine Microstructures Bonded To Prestrained Elastomers for Stretchable Electronics. *Advanced Functional Materials*, **2014**, 24, 2028-2037 | 15.6 | 220 |
| 105 | Capacitive epidermal electronics for electrically safe, long-term electrophysiological measurements. *Advanced Healthcare Materials*, **2014**, 3, 642-8 | 10.1 | 200 |
| 104 | Multifunctional skin-like electronics for quantitative, clinical monitoring of cutaneous wound healing. *Advanced Healthcare Materials*, **2014**, 3, 1597-607 | 10.1 | 175 |
| 103 | An Epidermal Stimulation and Sensing Platform for Sensorimotor Prosthetic Control, Management of Lower Back Exertion, and Electrical Muscle Activation. *Advanced Materials*, **2016**, 28, 4462-71 | 24 | 173 |
| 102 | Soft Material-Enabled, Flexible Hybrid Electronics for Medicine, Healthcare, and Human-Machine Interfaces. *Materials*, **2018**, 11, | 3.5 | 108 |
| 101 | Epidermal differential impedance sensor for conformal skin hydration monitoring. *Biointerphases*, **2012**, 7, 52 | 1.8 | 103 |
| 100 | Wireless, intraoral hybrid electronics for real-time quantification of sodium intake toward hypertension management. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 5377-5382 | 11.5 | 92 |
| 99 | Immunologic and tissue biocompatibility of flexible/stretchable electronics and optoelectronics. *Advanced Healthcare Materials*, **2014**, 3, 515-25 | 10.1 | 80 |
| 98 | Mechanically transformative electronics, sensors, and implantable devices. *Science Advances*, **2019**, 5, eaay0418 | 14.3 | 70 |
| 97 | Soft, wireless periocular wearable electronics for real-time detection of eye vergence in a virtual reality toward mobile eye therapies. *Science Advances*, **2020**, 6, eaay1729 | 14.3 | 61 |

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| 96 | All-printed nanomembrane wireless bioelectronics using a biocompatible solderable graphene for multimodal human-machine interfaces. *Nature Communications*, **2020**, 11, 3450 | 17.4 | 60 |
| 95 | Fully portable and wireless universal brain–machine interfaces enabled by flexible scalp electronics and deep learning algorithm. *Nature Machine Intelligence*, **2019**, 1, 412-422 | 22.5 | 58 |
| 94 | Soft, conformal bioelectronics for a wireless human-wheelchair interface. *Biosensors and Bioelectronics*, **2017**, 91, 796-803 | 11.8 | 56 |
| 93 | All-in-One, Wireless, Stretchable Hybrid Electronics for Smart, Connected, and Ambulatory Physiological Monitoring. *Advanced Science*, **2019**, 6, 1900939 | 13.6 | 55 |
| 92 | Immunosensor towards low-cost, rapid diagnosis of tuberculosis. *Lab on A Chip*, **2012**, 12, 1437-40 | 7.2 | 51 |
| 91 | Recent advances in salivary cancer diagnostics enabled by biosensors and bioelectronics. *Biosensors and Bioelectronics*, **2016**, 81, 181-197 | 11.8 | 42 |
| 90 | Fully Integrated, Stretchable, Wireless Skin-Conformal Bioelectronics for Continuous Stress Monitoring in Daily Life. *Advanced Science*, **2020**, 7, 2000810 | 13.6 | 40 |
| 89 | Manipulation of nanoparticles and biomolecules by electric field and surface tension. *Computer Methods in Applied Mechanics and Engineering*, **2008**, 197, 2156-2172 | 5.7 | 32 |
| 88 | Printed, Soft, Nanostructured Strain Sensors for Monitoring of Structural Health and Human Physiology. *ACS Applied Materials & Interfaces*, **2020**, 12, 25020-25030 | 9.5 | 31 |
| 87 | Size-specific concentration of DNA to a nanostructured tip using dielectrophoresis and capillary action. *Journal of Physical Chemistry B*, **2009**, 113, 10849-58 | 3.4 | 31 |
| 86 | Advances in Materials for Recent Low-Profile Implantable Bioelectronics. *Materials*, **2018**, 11, | 3.5 | 26 |
| 85 | Fully Printed, Wireless, Stretchable Implantable Biosystem toward Batteryless, Real-Time Monitoring of Cerebral Aneurysm Hemodynamics. *Advanced Science*, **2019**, 6, 1901034 | 13.6 | 26 |
| 84 | Ultrahigh Conductivity and Superior Interfacial Adhesion of a Nanostructured, Photonic-Sintered Copper Membrane for Printed Flexible Hybrid Electronics. *ACS Applied Materials & Interfaces*, **2018**, 10, 44071-44079 | 9.5 | 26 |
| 83 | Soft Electronics Enabled Ergonomic Human-Computer Interaction for Swallowing Training. *Scientific Reports*, **2017**, 7, 46697 | 4.9 | 25 |
| 82 | Recent Advances in Wearable Sensors and Integrated Functional Devices for Virtual and Augmented Reality Applications. *Advanced Functional Materials*, **2020**, 31, 2005692 | 15.6 | 23 |
| 81 | Rapid detection of Mycobacterium tuberculosis cells by using microtip-based immunoassay. *Analytical and Bioanalytical Chemistry*, **2009**, 393, 1593-600 | 4.4 | 21 |
| 80 | Advances in Screen Printing of Conductive Nanomaterials for Stretchable Electronics. *ACS Omega*, **2021**, 6, 9344-9351 | 3.9 | 21 |
| 79 | Recent advances in wearable sensors and portable electronics for sleep monitoring. *IScience*, **2021**, 24, 102461 | 6.1 | 21 |

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| 78 | Recent advances in graphene-based nanobiosensors for salivary biomarker detection. *Biosensors and Bioelectronics*, **2021**, 171, 112723 | 11.8 | 19 |
| 77 | Electrospun CuS/PVP Nanowires and Superior Near-Infrared Filtration Efficiency for Thermal Shielding Applications. *ACS Applied Materials & Interfaces*, **2019**, 11, 6575-6580 | 9.5 | 18 |
| 76 | Dielectrophoretic concentration of low-abundance nanoparticles using a nanostructured tip. *Nanotechnology*, **2012**, 23, 485707 | 3.4 | 18 |
| 75 | Stretchable Nanocomposite Sensors, Nanomembrane Interconnectors, and Wireless Electronics toward Feedback-Loop Control of a Soft Earthworm Robot. *ACS Applied Materials & Interfaces*, **2020**, 12, 43388-43397 | 9.5 | 17 |
| 74 | Skin-conformal, soft material-enabled bioelectronic system with minimized motion artifacts for reliable health and performance monitoring of athletes. *Biosensors and Bioelectronics*, **2020**, 151, 111981 | 11.8 | 16 |
| 73 | Printed, Wireless, Soft Bioelectronics and Deep Learning Algorithm for Smart Human-Machine Interfaces. *ACS Applied Materials & Interfaces*, **2020**, 12, 49398-49406 | 9.5 | 16 |
| 72 | Stretchable, Implantable, Nanostructured Flow-Diverter System for Quantification of Intra-aneurysmal Hemodynamics. *ACS Nano*, **2018**, 12, 8706-8716 | 16.7 | 15 |
| 71 | Electrostatic dimension of aligned-array carbon nanotube field-effect transistors. *ACS Nano*, **2013**, 7, 1299-308 | 16.7 | 15 |
| 70 | Recent Advances in Portable Biosensors for Biomarker Detection in Body Fluids. *Biosensors*, **2020**, 10, | 5.9 | 15 |
| 69 | Soft Materials, Stretchable Mechanics, and Optimized Designs for Body-Wearable Compliant Antennas. *ACS Applied Materials & Interfaces*, **2020**, 12, 3059-3067 | 9.5 | 14 |
| 68 | Advanced Nanomaterials, Printing Processes, and Applications for Flexible Hybrid Electronics. *Materials*, **2020**, 13, | 3.5 | 14 |
| 67 | Wireless Soft Scalp Electronics and Virtual Reality System for Motor Imagery-Based Brain-Machine Interfaces. *Advanced Science*, **2021**, 8, e2101129 | 13.6 | 14 |
| 66 | Breathable, large-area epidermal electronic systems for recording electromyographic activity during operant conditioning of H-reflex. *Biosensors and Bioelectronics*, **2020**, 165, 112404 | 11.8 | 13 |
| 65 | Nanoscale sensor analysis using the immersed molecular electrokinetic finite element method. *Nanoscale*, **2012**, 4, 5189-94 | 7.7 | 13 |
| 64 | Multi-Functional Electronics: Multifunctional Epidermal Electronics Printed Directly Onto the Skin (Adv. Mater. 20/2013). *Advanced Materials*, **2013**, 25, 2772-2772 | 24 | 13 |
| 63 | Microstructured Thin Film Nitinol for a Neurovascular Flow-Diverter. *Scientific Reports*, **2016**, 6, 23698 | 4.9 | 13 |
| 62 | Wireless, Flexible, Ion-Selective Electrode System for Selective and Repeatable Detection of Sodium. *Sensors*, **2020**, 20, | 3.8 | 12 |
| 61 | Size-selective immunofluorescence of Mycobacterium tuberculosis cells by capillary- and viscous forces. *Lab on A Chip*, **2010**, 10, 3178-81 | 7.2 | 12 |

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| 60 | Nanostructured biosensing platform-shadow edge lithography for high-throughput nanofabrication. *Lab on A Chip*, **2009**, 9, 449-55 | 7.2 | 12 |
| 59 | All-in-one, wireless, fully flexible sodium sensor system with integrated Au/CNT/Au nanocomposites. *Sensors and Actuators B: Chemical*, **2021**, 331, 129416 | 8.5 | 12 |
| 58 | Recent advances in wearable biosensing gloves and sensory feedback biosystems for enhancing rehabilitation, prostheses, healthcare, and virtual reality. *Biosensors and Bioelectronics*, **2021**, 190, 113443 | 11.8 | 12 |
| 57 | Recent Advances in Nanoparticle Concentration and Their Application in Viral Detection Using Integrated Sensors. *Sensors*, **2017**, 17, | 3.8 | 11 |
| 56 | Electric field-induced concentration and capture of DNA onto microtips. *Microfluidics and Nanofluidics*, **2012**, 13, 217-225 | 2.8 | 11 |
| 55 | Phase Behavior for the Poly(phenyl methacrylate) and Phenyl Methacrylate in Supercritical Carbon Dioxide and Dimethyl Ether. *Journal of Chemical & Engineering Data*, **2017**, 62, 1876-1883 | 2.8 | 10 |
| 54 | Nanotip analysis for dielectrophoretic concentration of nanosized viral particles. *Nanotechnology*, **2013**, 24, 185502 | 3.4 | 10 |
| 53 | Ultrahigh Sensitive Au-Doped Silicon Nanomembrane Based Wearable Sensor Arrays for Continuous Skin Temperature Monitoring with High Precision. *Advanced Materials*, **2021**, e2105865 | 24 | 10 |
| 52 | Wireless, Skin-Like Membrane Electronics With Multifunctional Ergonomic Sensors for Enhanced Pediatric Care. *IEEE Transactions on Biomedical Engineering*, **2020**, 67, 2159-2165 | 5 | 10 |
| 51 | Strain-Isolating Materials and Interfacial Physics for Soft Wearable Bioelectronics and Wireless, Motion Artifact-Controlled Health Monitoring. *Advanced Functional Materials*, **2021**, 31, 2104070 | 15.6 | 10 |
| 50 | Ultrathin, long-term stable, solid-state reference electrode enabled by enhanced interfacial adhesion and conformal coating of AgCl. *Sensors and Actuators B: Chemical*, **2020**, 309, 127761 | 8.5 | 9 |
| 49 | Soft Nanomembrane Sensors and Flexible Hybrid Bioelectronics for Wireless Quantification of Blepharospasm. *IEEE Transactions on Biomedical Engineering*, **2020**, 67, 3094-3100 | 5 | 9 |
| 48 | Thin dielectric-layer-enabled low-voltage operation of fully printed flexible carbon nanotube thin-film transistors. *Nanotechnology*, **2020**, 31, 235301 | 3.4 | 9 |
| 47 | Enhanced bioreaction efficiency of a microfluidic mixer toward high-throughput and low-cost bioassays. *Microfluidics and Nanofluidics*, **2012**, 12, 143-156 | 2.8 | 9 |
| 46 | Epidermal Electronics: Materials and Optimized Designs for Human-Machine Interfaces Via Epidermal Electronics (Adv. Mater. 47/2013). *Advanced Materials*, **2013**, 25, 6776-6776 | 24 | 9 |
| 45 | Wireless, continuous monitoring of daily stress and management practice via soft bioelectronics. *Biosensors and Bioelectronics*, **2020**, 173, 112764 | 11.8 | 8 |
| 44 | Green Manufacturing of Highly Conductive Cu2O and Cu Nanoparticles for Photonic-Sintered Printed Electronics. *ACS Applied Electronic Materials*, **2019**, 1, 2069-2075 | 4 | 7 |
| 43 | Rapid extraction and preservation of genomic DNA from human samples. *Analytical and Bioanalytical Chemistry*, **2013**, 405, 1977-83 | 4.4 | 7 |

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| 42 | Recent Advances in Printing Technologies of Nanomaterials for Implantable Wireless Systems in Health Monitoring and Diagnosis. *Advanced Healthcare Materials*, **2021**, 10, e2100158 | 10.1 | 7 |
| 41 | Development of Flexible Ion-Selective Electrodes for Saliva Sodium Detection. *Sensors*, **2021**, 21, | 3.8 | 7 |
| 40 | At-home wireless monitoring of acute hemodynamic disturbances to detect sleep apnea and sleep stages via a soft sternal patch.. *Science Advances*, **2021**, 7, eabl4146 | 14.3 | 7 |
| 39 | Fully implantable wireless batteryless vascular electronics with printed soft sensors for multiplex sensing of hemodynamics.. *Science Advances*, **2022**, 8, eabm1175 | 14.3 | 7 |
| 38 | Challenges and Advances in Aerosol Jet Printing of Regenerated Silk Fibroin Solutions. *Advanced Materials Interfaces*, **2020**, 7, 1902005 | 4.6 | 6 |
| 37 | Hybrid nanofibril assembly using an alternating current electric field and capillary action. *Journal of Nanoscience and Nanotechnology*, **2009**, 9, 7288-92 | 1.3 | 6 |
| 36 | Development of 60-GHz millimeter wave, electromagnetic bandgap ground planes for multiple-input multiple-output antenna applications. *Scientific Reports*, **2020**, 10, 8541 | 4.9 | 6 |
| 35 | Flexible Electronics: An Epidermal Stimulation and Sensing Platform for Sensorimotor Prosthetic Control, Management of Lower Back Exertion, and Electrical Muscle Activation (Adv. Mater. 22/2016). *Advanced Materials*, **2016**, 28, 4563 | 24 | 6 |
| 34 | Soft Wireless Bioelectronics and Differential Electrodermal Activity for Home Sleep Monitoring. *Sensors*, **2021**, 21, | 3.8 | 6 |
| 33 | Soft Material-Enabled, Active Wireless, Thin-Film Bioelectronics for Quantitative Diagnostics of Cervical Dystonia. *Advanced Materials Technologies*, **2019**, 4, 1900458 | 6.8 | 5 |
| 32 | An electromechanical, patient positioning system for head and neck radiotherapy. *Physics in Medicine and Biology*, **2017**, 62, 7520-7531 | 3.8 | 5 |
| 31 | Wearable Flexible Hybrid Electronics: Advanced Soft Materials, Sensor Integrations, and Applications of Wearable Flexible Hybrid Electronics in Healthcare, Energy, and Environment (Adv. Mater. 15/2020). *Advanced Materials*, **2020**, 32, 2070116 | 24 | 5 |
| 30 | Fabrication and Characterization of a Conformal Skin-like Electronic System for Quantitative, Cutaneous Wound Management. *Journal of Visualized Experiments*, **2015**, | 1.6 | 4 |
| 29 | Phase behaviour of binary and ternary mixtures for the poly(methyl methacrylate-co-hexafluorobutyl methacrylate) [P(MMA-co-HFBMA)] in supercritical fluorine solvents. *Journal of Chemical Thermodynamics*, **2015**, 82, 76-87 | 2.9 | 3 |
| 28 | Use of Superelastic Nitinol and Highly-Stretchable Latex to Develop a Tongue Prosthetic Assist Device and Facilitate Swallowing for Dysphagia Patients. *Materials*, **2019**, 12, | 3.5 | 3 |
| 27 | Breathable, Wireless, Thin-Film Wearable Biopatch Using Noise-Reduction Mechanisms. *ACS Applied Electronic Materials*, **2022**, 4, 503-512 | 4 | 3 |
| 26 | Real-Time Functional Assay of Volumetric Muscle Loss Injured Mouse Masseter Muscles via Nanomembrane Electronics. *Advanced Science*, **2021**, 8, e2101037 | 13.6 | 3 |
| 25 | Soft Wireless Bioelectronics Designed for Real-Time, Continuous Health Monitoring of Farmworkers.. *Advanced Healthcare Materials*, **2022**, e2200170 | 10.1 | 3 |

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| 24 | Smart bioelectronic pacifier for real-time continuous monitoring of salivary electrolytes.. *Biosensors and Bioelectronics*, **2022**, 210, 114329 | 11.8 | 3 |
| 23 | Assessment of endothelial cell growth behavior in thin film nitinol. *Biochip Journal*, **2017**, 11, 39-45 | 4 | 2 |
| 22 | Radiotherapy-Compatible Robotic System for Multi-Landmark Positioning in Head and Neck Cancer Treatments. *Scientific Reports*, **2019**, 9, 14358 | 4.9 | 2 |
| 21 | Synthesis of a Soft Nanocomposite for Flexible, Wearable Bioelectronics **2017**, | | 2 |
| 20 | Swallowing detection for game control: Using skin-like electronics to support people with dysphagia **2017**, | | 2 |
| 19 | Aerosol Jet Printing: Challenges and Advances in Aerosol Jet Printing of Regenerated Silk Fibroin Solutions (Adv. Mater. Interfaces 12/2020). *Advanced Materials Interfaces*, **2020**, 7, 2070065 | 4.6 | 2 |
| 18 | Recent Advances in High-Throughput Nanomaterial Manufacturing for Hybrid Flexible Bioelectronics. *Materials*, **2021**, 14, | 3.5 | 2 |
| 17 | A Simulation Study of a Radiofrequency Localization System for Tracking Patient Motion in Radiotherapy. *Sensors*, **2016**, 16, | 3.8 | 2 |
| 16 | Bioinspired Soft Robotic Fish for Wireless Underwater Control of Gliding Locomotion. *Advanced Intelligent Systems*,2100271 | 6 | 2 |
| 15 | Stretchable Hybrid Electronics: All-in-One, Wireless, Stretchable Hybrid Electronics for Smart, Connected, and Ambulatory Physiological Monitoring (Adv. Sci. 17/2019). *Advanced Science*, **2019**, 6, 1970104 | 13.6 | 1 |
| 14 | Implantable Electronics: Fully Printed, Wireless, Stretchable Implantable Biosystem toward Batteryless, Real-Time Monitoring of Cerebral Aneurysm Hemodynamics (Adv. Sci. 18/2019). *Advanced Science*, **2019**, 6, 1970110 | 13.6 | 1 |
| 13 | Fractal-Structured, Wearable Soft Sensors for Control of a Robotic Wheelchair via Electrooculograms **2017**, | | 1 |
| 12 | Bio-integrated electronics and sensor systems **2013**, | | 1 |
| 11 | Ion Diffusion and DNA Stretching in an Open Nanofluidic System. *Journal of Nanotechnology in Engineering and Medicine*, **2011**, 2, | | 1 |
| 10 | Direct concentration of circulating DNA by using a nanostructured tip **2008**, | | 1 |
| 9 | A novel low-profile flow sensor for monitoring of hemodynamics in cerebral aneurysm. *Biomaterials and Biomechanics in Bioengineering*, **2015**, 2, 71-84 | | 1 |
| 8 | Advances in Microsensors and Wearable Bioelectronics for Digital Stethoscopes in Health Monitoring and Disease Diagnosis. *Advanced Healthcare Materials*, **2021**, 10, e2101400 | 10.1 | 1 |
| 7 | Recent advances in wearable exoskeletons for human strength augmentation. *Flexible and Printed Electronics*, **2022**, 7, 023002 | 3.1 | 1 |

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| 6 | VR-enabled portable brain-computer interfaces via wireless soft bioelectronics.. *Biosensors and Bioelectronics*, **2022**, 210, 114333 | 11.8 | 1 |
| 5 | Recent Advances in Wearable Sensors and Integrated Functional Devices for Virtual and Augmented Reality Applications (Adv. Funct. Mater. 39/2021). *Advanced Functional Materials*, **2021**, 31, 2170289 | 15.6 | 0 |
| 4 | Flexible Electronics: Soft Material-Enabled, Active Wireless, Thin-Film Bioelectronics for Quantitative Diagnostics of Cervical Dystonia (Adv. Mater. Technol. 10/2019). *Advanced Materials Technologies*, **2019**, 4, 1970055 | 6.8 | |
| 3 | Directly Accessible and Transferrable Nanofluidic Systems for Biomolecule Manipulation. *ACS Sensors*, **2019**, 4, 1417-1423 | 9.2 | |
| 2 | Soft Wearable Patch for Continuous Cardiac Biometric Security. *Engineering Proceedings*, **2021**, 10, 73 | 0.5 | |
| 1 | Soft Material-Enabled Packaging for Stretchable and Flexible Hybrid Electronics **2021**, 377-403 | | |