

# Ping Wang

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

106  
papers

2,517  
citations

28  
h-index

46  
g-index

110  
ext. papers

3,078  
ext. citations

8.1  
avg, IF

5.15  
L-index

#	Paper	IF	Citations
106	Colorimetric detection of citric acid as the biomarker for urolithiasis based on sodium dodecylsulfate-AgNPs with a portable CD-spectrometer.. <i>Analytica Chimica Acta</i> , <b>2022</b> , 1191, 339178	6.6	1
105	Olfactory regulation by dopamine and DRD2 receptor in the nose.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2022</b> , 119, e2118570119	11.5	1
104	Covalently grafting first-generation PAMAM dendrimers onto MXenes with self-adsorbed AuNPs for use as a functional nanoplatform for highly sensitive electrochemical biosensing of cTnT.. <i>Microsystems and Nanoengineering</i> , <b>2022</b> , 8, 35	7.7	5
103	A Microphysiometric System Based on LAPS for Real-Time Monitoring of Microbial Metabolism. <i>Chemosensors</i> , <b>2022</b> , 10, 177	4	0
102	A Cell Co-Culture Taste Sensor Using Different Proportions of Caco-2 and SH-SY5Y Cells for Bitterness Detection. <i>Chemosensors</i> , <b>2022</b> , 10, 173	4	1
101	An In Vitro HL-1 Cardiomyocyte-Based Olfactory Biosensor for Olfr558-Inhibited Efficiency Detection. <i>Chemosensors</i> , <b>2022</b> , 10, 200	4	1
100	An bioelectronic nose for possible quantitative evaluation of odor masking using M/T cell spatial response patterns. <i>Analyst, The</i> , <b>2021</b> ,	5	1
99	Fabricating Tissues In Situ with the Controlled Cellular Alignments. <i>Advanced Healthcare Materials</i> , <b>2021</b> , e2100934	10.1	2
98	Cardiomyocyte electrical-mechanical synchronized model for high-content, dose-quantitative and time-dependent drug assessment. <i>Microsystems and Nanoengineering</i> , <b>2021</b> , 7, 26	7.7	4
97	3D Hierarchical Nanoarchitecture AuNPs/MXene@PAMAM based Biosensor for cTnT Detection in Human Serum* <b>2021</b> ,		1
96	Biomimetic in vitro respiratory system using smooth muscle cells on ECIS chips for anti-asthma TCMs screening. <i>Analytica Chimica Acta</i> , <b>2021</b> , 1162, 338452	6.6	2
95	Recent advances in acoustic wave biosensors for the detection of disease-related biomarkers: A review. <i>Analytica Chimica Acta</i> , <b>2021</b> , 1164, 338321	6.6	21
94	An Odor Recognition Algorithm of Electronic Noses Based on Convolutional Spiking Neural Network for Spoiled Food Identification. <i>Journal of the Electrochemical Society</i> , <b>2021</b> , 168, 077519	3.9	6
93	Hybrid Integrated Cardiomyocyte Biosensors for Bitter Detection and Cardiotoxicity Assessment. <i>ACS Sensors</i> , <b>2021</b> , 6, 2593-2604	9.2	2
92	Quantifying the Compressive Force of 3D Cardiac Tissues via Calculating the Volumetric Deformation of Built-In Elastic Gelatin Microspheres. <i>Advanced Healthcare Materials</i> , <b>2021</b> , 10, e2001716	10.1	0
91	A biohybrid nose for evaluation of odor masking in the peripheral olfactory system. <i>Biosensors and Bioelectronics</i> , <b>2021</b> , 171, 112737	11.8	7
90	Recent progress in micro/nano biosensors for shellfish toxin detection. <i>Biosensors and Bioelectronics</i> , <b>2021</b> , 176, 112899	11.8	13

89	Biomimetic integrated olfactory sensory and olfactory bulb systems in vitro based on a chip. <i>Biosensors and Bioelectronics</i> , <b>2021</b> , 171, 112739	11.8	3
88	A multidimensional biosensor system to guide LUAD individualized treatment. <i>Journal of Materials Chemistry B</i> , <b>2021</b> , 9, 7991-8002	7.3	0
87	Surface acoustic wave (SAW) techniques in tissue engineering. <i>Cell and Tissue Research</i> , <b>2021</b> , 386, 215-226	2.6	1
86	Development of QDs-based nanosensors for heavy metal detection: A review on transducer principles and in-situ detection. <i>Talanta</i> , <b>2021</b> , 122903	6.2	4
85	Multiplexed all-solid-state ion-sensitive light-addressable potentiometric sensor (ISLAPS) system based on silicone-rubber for physiological ions detection. <i>Analytica Chimica Acta</i> , <b>2021</b> , 1179, 338603	6.6	4
84	A multi-channel handheld automatic spectrometer for wide range and on-site detection of okadaic acid based on specific aptamer binding. <i>Analytical Methods</i> , <b>2021</b> , 13, 4345-4353	3.2	1
83	Specific recognition of ion channel blocker by high-content cardiomyocyte electromechanical integrated correlation. <i>Biosensors and Bioelectronics</i> , <b>2020</b> , 162, 112273	11.8	16
82	3D microgroove electrical impedance sensing to examine 3D cell cultures for antineoplastic drug assessment. <i>Microsystems and Nanoengineering</i> , <b>2020</b> , 6, 23	7.7	24
81	Microfluidic-based fluorescent electronic eye with CdTe/CdS core-shell quantum dots for trace detection of cadmium ions. <i>Analytica Chimica Acta</i> , <b>2020</b> , 1131, 126-135	6.6	8
80	A sperm-cell-based biosensor using a fluorescence probe for responsive signal readout toward bitter flavor detection. <i>Talanta</i> , <b>2020</b> , 211, 120731	6.2	3
79	A biomimetic taste biosensor based on bitter receptors synthesized and purified on chip from a cell-free expression system. <i>Sensors and Actuators B: Chemical</i> , <b>2020</b> , 312, 127949	8.5	5
78	A novel portable biosensor based on aptamer functionalized gold nanoparticles for adenosine detection. <i>Analytica Chimica Acta</i> , <b>2020</b> , 1120, 43-49	6.6	15
77	A QDs Nanocomposites-Based Photoluminescence Ratiometric Method for Selective and Visual Cadmium Detection Combining with Smartphone-Based PL E-Eye. <i>Journal of the Electrochemical Society</i> , <b>2020</b> , 167, 147520	3.9	3
76	Detection of Hazardous Gas Mixtures in the Smart Kitchen Using an Electronic Nose with Support Vector Machine. <i>Journal of the Electrochemical Society</i> , <b>2020</b> , 167, 147519	3.9	1
75	Advances in Multidimensional Cardiac Biosensing Technologies: From Electrophysiology to Mechanical Motion and Contractile Force. <i>Small</i> , <b>2020</b> , 16, e2005828	11	6
74	A novel smartphone-based CD-spectrometer for high sensitive and cost-effective colorimetric detection of ascorbic acid. <i>Analytica Chimica Acta</i> , <b>2020</b> , 1093, 150-159	6.6	36
73	In-situ detection of cadmium with aptamer functionalized gold nanoparticles based on smartphone-based colorimetric system. <i>Talanta</i> , <b>2020</b> , 208, 120231	6.2	48
72	A novel bionic in vitro bioelectronic tongue based on cardiomyocytes and microelectrode array for bitter and umami detection. <i>Biosensors and Bioelectronics</i> , <b>2019</b> , 145, 111673	11.8	29

71	Microfluidic chip system integrated with light addressable potentiometric sensor (LAPS) for real-time extracellular acidification detection. <i>Sensors and Actuators B: Chemical</i> , <b>2019</b> , 301, 127004	8.5	21
70	MnO nanosheets as the biomimetic oxidase for rapid and sensitive oxalate detection combining with bionic E-eye. <i>Biosensors and Bioelectronics</i> , <b>2019</b> , 130, 254-261	11.8	25
69	An Ultrasensitive Gold Nanoband Aptasensor for Mercury(II) Detection in Aquatic Environment. <i>Journal of the Electrochemical Society</i> , <b>2019</b> , 166, B793-B798	3.9	4
68	A bioinspired in vitro bioelectronic tongue with human T2R38 receptor for high-specificity detection of N-C=S-containing compounds. <i>Talanta</i> , <b>2019</b> , 199, 131-139	6.2	12
67	Multi-site dynamic recording for Aβ oligomers-induced Alzheimer's disease in vitro based on neuronal network chip. <i>Biosensors and Bioelectronics</i> , <b>2019</b> , 133, 183-191	11.8	11
66	Recent Developments of High-Resolution Chemical Imaging Systems Based on Light-Addressable Potentiometric Sensors (LAPSs). <i>Sensors</i> , <b>2019</b> , 19,	3.8	11
65	Integrated olfaction, gustation and toxicity detection by a versatile bioengineered cell-based biomimetic sensor. <i>Bioelectrochemistry</i> , <b>2019</b> , 128, 1-8	5.6	9
64	Extracellular recordings of bionic engineered cardiac tissue based on a porous scaffold and microelectrode arrays. <i>Analytical Methods</i> , <b>2019</b> , 11, 5872-5879	3.2	9
63	High-temporal-range drug-induced cardiac side-effect evaluation using simultaneous HL-1-based impedance and long-term electrophysiology recording systems. <i>Analytical Methods</i> , <b>2019</b> , 11, 5250-5259 <sup>3,2</sup>		3
62	Efficacy and cardiotoxicity integrated assessment of anticancer drugs by a dual functional cell-based biosensor. <i>Sensors and Actuators B: Chemical</i> , <b>2019</b> , 283, 881-889	8.5	15
61	3D cell-based biosensor for cell viability and drug assessment by 3D electric cell/matrigel-substrate impedance sensing. <i>Biosensors and Bioelectronics</i> , <b>2019</b> , 130, 344-351	11.8	60
60	Surface modification and construction of LAPS towards biosensing applications. <i>Sensors and Actuators B: Chemical</i> , <b>2018</b> , 265, 161-173	8.5	15
59	In vivo bioelectronic nose using transgenic mice for specific odor detection. <i>Biosensors and Bioelectronics</i> , <b>2018</b> , 102, 150-156	11.8	14
58	Novel research on okadaic acid field-based detection using cell viability biosensor and Bionic e-Eye. <i>Sensors and Actuators B: Chemical</i> , <b>2018</b> , 256, 448-456	8.5	10
57	A method combining a kit with the Bionic e-Eye for rapid on site detection of diarrhetic shellfish poisoning. <i>Analytical Methods</i> , <b>2018</b> , 10, 2604-2613	3.2	3
56	Real-time assessment of food freshness in refrigerators based on a miniaturized electronic nose. <i>Analytical Methods</i> , <b>2018</b> , 10, 4741-4749	3.2	16
55	Confounding effect of benign pulmonary diseases in selecting volatile organic compounds as markers of lung cancer. <i>Journal of Breath Research</i> , <b>2018</b> , 12, 046013	3.1	17
54	Simultaneous detection of hydrogen and methane in breath for the diagnosis of small intestinal bacterial overgrowth by fast gas chromatography. <i>Analytical Methods</i> , <b>2018</b> , 10, 4329-4338	3.2	6

53	A Dual Functional Cardiomyocyte-based Hybrid-biosensor for the Detection of Diarrhetic Shellfish Poisoning and Paralytic Shellfish Poisoning Toxins. <i>Analytical Sciences</i> , <b>2018</b> , 34, 893-900	1.7	7
52	Synchronized electromechanical integration recording of cardiomyocytes. <i>Biosensors and Bioelectronics</i> , <b>2018</b> , 117, 354-365	11.8	26
51	Sensor-free and Sensor-based Heart-on-a-chip Platform: A Review of Design and Applications. <i>Current Pharmaceutical Design</i> , <b>2018</b> , 24, 5375-5385	3.3	6
50	Bionic 3D spheroids biosensor chips for high-throughput and dynamic drug screening. <i>Biomedical Microdevices</i> , <b>2018</b> , 20, 82	3.7	12
49	A miniaturized electrochemical system for high sensitive determination of chromium(VI) by screen-printed carbon electrode with gold nanoparticles modification. <i>Sensors and Actuators B: Chemical</i> , <b>2018</b> , 272, 582-588	8.5	70
48	An improved efficient biochemical detection method to marine toxins with a smartphone-based portable system Bionic e-Eye. <i>Sensors and Actuators B: Chemical</i> , <b>2017</b> , 238, 1165-1172	8.5	22
47	A novel label-free bioengineered cell-based biosensor for salicin detection. <i>Sensors and Actuators B: Chemical</i> , <b>2017</b> , 238, 1151-1158	8.5	18
46	A whole animal-based biosensor for fast detection of bitter compounds using extracellular potentials in rat gustatory cortex. <i>Sensors and Actuators B: Chemical</i> , <b>2017</b> , 239, 746-753	8.5	10
45	Detection of diarrhetic shellfish poisoning toxins using high-sensitivity human cancer cell-based impedance biosensor. <i>Sensors and Actuators B: Chemical</i> , <b>2016</b> , 222, 205-212	8.5	29
44	Detection of bitterness in vitro by a novel male mouse germ cell-based biosensor. <i>Sensors and Actuators B: Chemical</i> , <b>2016</b> , 223, 461-469	8.5	17
43	A novel sensitive cell-based Love Wave biosensor for marine toxin detection. <i>Biosensors and Bioelectronics</i> , <b>2016</b> , 77, 573-9	11.8	27
42	Multi-odor discrimination by a novel bio-hybrid sensing preserving rat's intact smell perception in vivo. <i>Sensors and Actuators B: Chemical</i> , <b>2016</b> , 225, 34-41	8.5	6
41	A novel bioelectronic tongue in vivo for highly sensitive bitterness detection with brain-machine interface. <i>Biosensors and Bioelectronics</i> , <b>2016</b> , 78, 374-380	11.8	25
40	High-Throughput Assessment of Drug Cardiac Safety Using a High-Speed Impedance Detection Technology-Based Heart-on-a-Chip. <i>Micromachines</i> , <b>2016</b> , 7,	3.3	28
39	Disposable poly (o-aminophenol)-carbon nanotubes modified screen print electrode-based enzyme sensor for electrochemical detection of marine toxin okadaic acid. <i>Sensors and Actuators B: Chemical</i> , <b>2016</b> , 235, 170-178	8.5	23
38	High-efficient and high-content cytotoxic recording via dynamic and continuous cell-based impedance biosensor technology. <i>Biomedical Microdevices</i> , <b>2016</b> , 18, 94	3.7	7
37	Sensitive detection of carcinoembryonic antigen in exhaled breath condensate using surface acoustic wave immunosensor. <i>Sensors and Actuators B: Chemical</i> , <b>2015</b> , 217, 100-106	8.5	34
36	Detection of cardiovascular drugs and marine toxins using a multifunctional cell-based impedance biosensor system. <i>Analytical Methods</i> , <b>2015</b> , 7, 7715-7723	3.2	8

35	Detection of 5-hydroxytryptamine (5-HT) in vitro using a hippocampal neuronal network-based biosensor with extracellular potential analysis of neurons. <i>Biosensors and Bioelectronics</i> , <b>2015</b> , 66, 572-8	11.8	9
34	Detection and classification of natural odors with an in vivo bioelectronic nose. <i>Biosensors and Bioelectronics</i> , <b>2015</b> , 67, 694-9	11.8	21
33	High-performance beating pattern function of human induced pluripotent stem cell-derived cardiomyocyte-based biosensors for hERG inhibition recognition. <i>Biosensors and Bioelectronics</i> , <b>2015</b> , 67, 146-53	11.8	33
32	Recent achievements in electronic tongue and bioelectronic tongue as taste sensors. <i>Sensors and Actuators B: Chemical</i> , <b>2015</b> , 207, 1136-1146	8.5	114
31	An improved functional assay for rapid detection of marine toxins, saxitoxin and brevetoxin using a portable cardiomyocyte-based potential biosensor. <i>Biosensors and Bioelectronics</i> , <b>2015</b> , 72, 10-7	11.8	40
30	High-sensitive and high-efficient biochemical analysis method using a bionic electronic eye in combination with a smartphone-based colorimetric reader system. <i>Sensors and Actuators B: Chemical</i> , <b>2015</b> , 216, 134-140	8.5	46
29	A novel and functional assay for pharmacological effects of marine toxins, saxitoxin and tetrodotoxin by cardiomyocyte-based impedance biosensor. <i>Sensors and Actuators B: Chemical</i> , <b>2015</b> , 209, 828-837	8.5	23
28	An improved sensitive assay for the detection of PSP toxins with neuroblastoma cell-based impedance biosensor. <i>Biosensors and Bioelectronics</i> , <b>2015</b> , 67, 458-64	11.8	41
27	A point-of-care testing system with Love-wave sensor and immunogold staining enhancement for early detection of lung cancer. <i>Biomedical Microdevices</i> , <b>2014</b> , 16, 927-35	3.7	7
26	A miniaturized immunosensor platform for automatic detection of carcinoembryonic antigen in EBC. <i>Sensors and Actuators B: Chemical</i> , <b>2014</b> , 205, 94-101	8.5	21
25	Design of a novel hybrid sensor with microelectrode array and LAPS for heavy metal determination using multivariate nonlinear calibration. <i>Sensors and Actuators B: Chemical</i> , <b>2014</b> , 192, 755-761	8.5	19
24	Cell-based biosensors and their application in biomedicine. <i>Chemical Reviews</i> , <b>2014</b> , 114, 6423-61	68.1	221
23	Optimization of volatile markers of lung cancer to exclude interferences of non-malignant disease. <i>Cancer Biomarkers</i> , <b>2014</b> , 14, 371-9	3.8	27
22	Assessment of cadmium-induced hepatotoxicity and protective effects of zinc against it using an improved cell-based biosensor. <i>Sensors and Actuators A: Physical</i> , <b>2013</b> , 199, 156-164	3.9	18
21	A cardiomyocyte-based biosensor for antiarrhythmic drug evaluation by simultaneously monitoring cell growth and beating. <i>Biosensors and Bioelectronics</i> , <b>2013</b> , 49, 9-13	11.8	70
20	In situ determination of cadmium and lead in water environment based on microelectrode array combined PLS with local optimum method. <i>Analytical Methods</i> , <b>2013</b> , 5, 1823	3.2	1
19	Comparison between ECIS and LAPS for establishing a cardiomyocyte-based biosensor. <i>Sensors and Actuators B: Chemical</i> , <b>2013</b> , 185, 238-244	8.5	15
18	A novel microphysiometer based on high sensitivity LAPS and microfluidic system for cellular metabolism study and rapid drug screening. <i>Biosensors and Bioelectronics</i> , <b>2013</b> , 40, 167-73	11.8	53

17	Bioengineered olfactory sensory neuron-based biosensor for specific odorant detection. <i>Biosensors and Bioelectronics</i> , <b>2013</b> , 40, 401-6	11.8	37
16	The analysis of volatile organic compounds biomarkers for lung cancer in exhaled breath, tissues and cell lines. <i>Cancer Biomarkers</i> , <b>2012</b> , 11, 129-37	3.8	98
15	A novel surface acoustic wave-based biosensor for highly sensitive functional assays of olfactory receptors. <i>Biochemical and Biophysical Research Communications</i> , <b>2011</b> , 407, 18-22	3.4	35
14	An olfactory bulb slice-based biosensor for multi-site extracellular recording of neural networks. <i>Biosensors and Bioelectronics</i> , <b>2011</b> , 26, 3313-9	11.8	20
13	A multi-scale electrode array (MSEA) to study excitation-contraction coupling of cardiomyocytes for high-throughput bioassays. <i>Sensors and Actuators B: Chemical</i> , <b>2011</b> , 152, 107-114	8.5	11
12	In vitro assessing the risk of drug-induced cardiotoxicity by embryonic stem cell-based biosensor. <i>Sensors and Actuators B: Chemical</i> , <b>2011</b> , 155, 214-219	8.5	28
11	Evaluation of doxorubicin toxicity on cardiomyocytes using a dual functional extracellular biochip. <i>Biosensors and Bioelectronics</i> , <b>2010</b> , 26, 1493-9	11.8	29
10	A novel biomimetic olfactory-based biosensor for single olfactory sensory neuron monitoring. <i>Biosensors and Bioelectronics</i> , <b>2009</b> , 24, 1498-502	11.8	59
9	A novel design of multifunctional integrated cell-based biosensors for simultaneously detecting cell acidification and extracellular potential. <i>Biosensors and Bioelectronics</i> , <b>2009</b> , 24, 1462-8	11.8	35
8	A novel electrochemical biosensor based on dynamic polymerase-extending hybridization for E. coli O157:H7 DNA detection. <i>Talanta</i> , <b>2009</b> , 78, 647-52	6.2	87
7	Line-scanning LAPS array for measurement of heavy metal ions with micro-lens array based on MEMS. <i>Sensors and Actuators B: Chemical</i> , <b>2008</b> , 129, 397-403	8.5	20
6	Detection of heavy metal toxicity using cardiac cell-based biosensor. <i>Biosensors and Bioelectronics</i> , <b>2007</b> , 22, 3224-9	11.8	73
5	Embryonic stem cells as a novel cell source of cell-based biosensors. <i>Biosensors and Bioelectronics</i> , <b>2007</b> , 22, 810-5	11.8	28
4	Olfactory cell-based biosensor: a first step towards a neurochip of bioelectronic nose. <i>Biosensors and Bioelectronics</i> , <b>2006</b> , 22, 318-22	11.8	127
3	Cell-based biosensors and its application in biomedicine. <i>Sensors and Actuators B: Chemical</i> , <b>2005</b> , 108, 576-584	8.5	93
2	A novel electronic tongue combined MLAPS with stripping voltammetry for environmental detection. <i>Sensors and Actuators B: Chemical</i> , <b>2005</b> , 110, 350-357	8.5	41
1	Facile Screen-Printed Carbon Nanotube Electrode on Porous Substrate with Gold Nanoparticle Modification for Rapid Electrochemical Gas Sensing. <i>Journal of the Electrochemical Society</i> ,	3.9	4