

Hyun Seok Song

List of Publications by Year in descending order

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43
papers

3,128
citations

172207

29
h-index

276539

41
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44
all docs

44
docs citations

44
times ranked

3914
citing authors

#	ARTICLE	IF	CITATIONS
1	Ultrasensitive Flexible Graphene Based Field-Effect Transistor (FET)-Type Bioelectronic Nose. <i>Nano Letters</i> , 2012, 12, 5082-5090.	4.5	312
2	Self-assembled RNA-triple-helix hydrogel scaffold for microRNA modulation in the tumour microenvironment. <i>Nature Materials</i> , 2016, 15, 353-363.	13.3	231
3	Polypyrrole Nanotubes Conjugated with Human Olfactory Receptors: High Performance Transducers for FET-Type Bioelectronic Noses. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 2755-2758.	7.2	195
4	Single-Carbon Atomic-Resolution Detection of Odorant Molecules using a Human Olfactory Receptor-Based Bioelectronic Nose. <i>Advanced Materials</i> , 2009, 21, 91-94.	11.1	171
5	Conducting Nanomaterial Sensor Using Natural Receptors. <i>Chemical Reviews</i> , 2019, 119, 36-93.	23.0	159
6	Dual-Color Emissive Upconversion Nanocapsules for Differential Cancer Bioimaging <i>In Vivo</i> . <i>ACS Nano</i> , 2016, 10, 1512-1521.	7.3	157
7	Nanovesicle-based bioelectronic nose platform mimicking human olfactory signal transduction. <i>Biosensors and Bioelectronics</i> , 2012, 35, 335-341.	5.3	149
8	An Ultrasensitive, Selective, Multiplexed Superbioelectronic Nose That Mimics the Human Sense of Smell. <i>Nano Letters</i> , 2015, 15, 6559-6567.	4.5	129
9	Recent advances in electronic and bioelectronic noses and their biomedical applications. <i>Enzyme and Microbial Technology</i> , 2011, 48, 427-437.	1.6	125
10	3D hydrogel scaffold doped with 2D graphene materials for biosensors and bioelectronics. <i>Biosensors and Bioelectronics</i> , 2017, 89, 187-200.	5.3	112
11	Mimicking the human smell sensing mechanism with an artificial nose platform. <i>Biomaterials</i> , 2012, 33, 1722-1729.	5.7	106
12	Human Taste Receptor-Functionalized Field Effect Transistor as a Human-Like Nanobioelectronic Tongue. <i>Nano Letters</i> , 2013, 13, 172-178.	4.5	104
13	Large-Scale Graphene Micropattern Nano-biohybrids: High Performance Transducers for FET-Type Flexible Fluidic HIV Immunoassays. <i>Advanced Materials</i> , 2013, 25, 4177-4185.	11.1	97
14	Bioelectronic nose with high sensitivity and selectivity using chemically functionalized carbon nanotube combined with human olfactory receptor. <i>Journal of Biotechnology</i> , 2012, 157, 467-472.	1.9	96
15	Duplex Bioelectronic Tongue for Sensing Umami and Sweet Tastes Based on Human Taste Receptor Nanovesicles. <i>ACS Nano</i> , 2016, 10, 7287-7296.	7.3	78
16	Bioelectronic Tongue Using Heterodimeric Human Taste Receptor for the Discrimination of Sweeteners with Human-like Performance. <i>ACS Nano</i> , 2014, 8, 9781-9789.	7.3	75
17	Bioelectronic super-taster device based on taste receptor-carbon nanotube hybrid structures. <i>Lab on A Chip</i> , 2011, 11, 2262.	3.1	71
18	Nanodisc-Based Bioelectronic Nose Using Olfactory Receptor Produced in <i>Escherichia coli</i> for the Assessment of the Death-Associated Odor Cadaverine. <i>ACS Nano</i> , 2017, 11, 11847-11855.	7.3	59

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19	Label-free brain tissue imaging using large-area terahertz metamaterials. <i>Biosensors and Bioelectronics</i> , 2020, 170, 112663.	5.3	59
20	Ultrasensitive and Selective Recognition of Peptide Hormone Using Close-Packed Arrays of hPTHR-Conjugated Polymer Nanoparticles. <i>ACS Nano</i> , 2012, 6, 5549-5558.	7.3	52
21	High-performance bioelectronic tongue using ligand binding domain T1R1 VFT for umami taste detection. <i>Biosensors and Bioelectronics</i> , 2018, 117, 628-636.	5.3	49
22	Human dopamine receptor nanovesicles for gate-potential modulators in high-performance field-effect transistor biosensors. <i>Scientific Reports</i> , 2014, 4, 4342.	1.6	47
23	Humidity-tolerant Single-stranded DNA-functionalized Graphene Probe for Medical Applications of Exhaled Breath Analysis. <i>Advanced Functional Materials</i> , 2017, 27, 1700068.	7.8	47
24	Expression, Solubilization and Purification of a Human Olfactory Receptor from <i>Escherichia coli</i> . <i>Current Microbiology</i> , 2009, 59, 309-314.	1.0	46
25	Personalizing Biomaterials for Precision Nanomedicine Considering the Local Tissue Microenvironment. <i>Advanced Healthcare Materials</i> , 2015, 4, 1584-1599.	3.9	44
26	Highly selective and sensitive detection of neurotransmitters using receptor-modified single-walled carbon nanotube sensors. <i>Nanotechnology</i> , 2013, 24, 285501.	1.3	40
27	High-performance portable graphene field-effect transistor device for detecting Gram-positive and -negative bacteria. <i>Biosensors and Bioelectronics</i> , 2020, 167, 112514.	5.3	39
28	Ultrasensitive, Selective, and Highly Stable Bioelectronic Nose That Detects the Liquid and Gaseous Cadaverine. <i>Analytical Chemistry</i> , 2019, 91, 12181-12190.	3.2	36
29	Real-time monitoring of geosmin based on an aptamer-conjugated graphene field-effect transistor. <i>Biosensors and Bioelectronics</i> , 2021, 174, 112804.	5.3	30
30	Integration of biomolecules and nanomaterials: Towards highly selective and sensitive biosensors. <i>Biotechnology Journal</i> , 2011, 6, 1310-1316.	1.8	29
31	In-situ food spoilage monitoring using a wireless chemical receptor-conjugated graphene electronic nose. <i>Biosensors and Bioelectronics</i> , 2022, 200, 113908.	5.3	27
32	Detection and discrimination of SARS-CoV-2 spike protein-derived peptides using THz metamaterials. <i>Biosensors and Bioelectronics</i> , 2022, 202, 113981.	5.3	27
33	Wireless portable bioelectronic nose device for multiplex monitoring toward food freshness/spoilage. <i>Biosensors and Bioelectronics</i> , 2022, 215, 114551.	5.3	27
34	Dopamine Receptor D1 Agonism and Antagonism Using a Field-Effect Transistor Assay. <i>ACS Nano</i> , 2017, 11, 5950-5959.	7.3	25
35	Purification and functional reconstitution of human olfactory receptor expressed in <i>Escherichia coli</i> . <i>Biotechnology and Bioprocess Engineering</i> , 2015, 20, 423-430.	1.4	18
36	Ultrasensitive terahertz molecule sensor for observation of photoinduced conformational change in rhodopsin-nanovesicles. <i>Sensors and Actuators B: Chemical</i> , 2018, 273, 1371-1375.	4.0	15

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37	Screening of cell-penetrating peptides using mRNA display. <i>Biotechnology Journal</i> , 2012, 7, 387-396.	1.8	13
38	Artificial Rod and Cone Photoreceptors with Human-like Spectral Sensitivities. <i>Advanced Materials</i> , 2018, 30, e1706764.	11.1	12
39	Clinical proteomic analysis of scrub typhus infection. <i>Clinical Proteomics</i> , 2018, 15, 6.	1.1	10
40	Nanovesicle-based platform for the electrophysiological monitoring of aquaporin-4 and the real-time detection of its antibody. <i>Biosensors and Bioelectronics</i> , 2014, 61, 140-146.	5.3	6
41	Photosensitive Nanodiscs Composed of Human Photoreceptors for Refractive Index Modulation at Selective Wavelengths. <i>Nano Letters</i> , 2022, 22, 6825-6832.	4.5	4
42	Optical measurement of peptide hormone using artificial hormone receptor cell-line. , 2013, , .		0
43	Production of Olfactory Receptors and Nanovesicles Using Heterologous Cell Systems for Bioelectronic Nose. , 2014, , 145-170.		0