

Hyun Seok Song

List of Publications by Year in descending order

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43
papers

3,128
citations

172457
29
h-index

276875
41
g-index

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. Nano Letters, 2012, 12, 5082-5090.	9.1	312
2	Self-assembled RNA-triple-helix hydrogel scaffold for microRNA modulation in the tumour microenvironment. Nature Materials, 2016, 15, 353-363.	27.5	231
3	Polypyrrole Nanotubes Conjugated with Human Olfactory Receptors: High Performance Transducers for FET-Type Bioelectronic Noses. Angewandte Chemie - International Edition, 2009, 48, 2755-2758.	13.8	195
4	Single-Carbon Atomic-Resolution Detection of Odorant Molecules using a Human Olfactory Receptor-Based Bioelectronic Nose. Advanced Materials, 2009, 21, 91-94.	21.0	171
5	Conducting Nanomaterial Sensor Using Natural Receptors. Chemical Reviews, 2019, 119, 36-93.	47.7	159
6	Dual-Color Emissive Upconversion Nanocapsules for Differential Cancer Bioimaging <i>In Vivo</i> . ACS Nano, 2016, 10, 1512-1521.	14.6	157
7	Nanovesicle-based bioelectronic nose platform mimicking human olfactory signal transduction. Biosensors and Bioelectronics, 2012, 35, 335-341.	10.1	149
8	An Ultrasensitive, Selective, Multiplexed Superbioelectronic Nose That Mimics the Human Sense of Smell. Nano Letters, 2015, 15, 6559-6567.	9.1	129
9	Recent advances in electronic and bioelectronic noses and their biomedical applications. Enzyme and Microbial Technology, 2011, 48, 427-437.	3.2	125
10	3D hydrogel scaffold doped with 2D graphene materials for biosensors and bioelectronics. Biosensors and Bioelectronics, 2017, 89, 187-200.	10.1	112
11	Mimicking the human smell sensing mechanism with an artificial nose platform. Biomaterials, 2012, 33, 1722-1729.	11.4	106
12	Human Taste Receptor-Functionalized Field Effect Transistor as a Human-Like Nanobioelectronic Tongue. Nano Letters, 2013, 13, 172-178.	9.1	104
13	Large-Scale Graphene Micropattern Nano-biohybrids: High Performance Transducers for FET-Type Flexible Fluidic HIV Immunoassays. Advanced Materials, 2013, 25, 4177-4185.	21.0	97
14	Bioelectronic nose with high sensitivity and selectivity using chemically functionalized carbon nanotube combined with human olfactory receptor. Journal of Biotechnology, 2012, 157, 467-472.	3.8	96
15	Duplex Bioelectronic Tongue for Sensing Umami and Sweet Tastes Based on Human Taste Receptor Nanovesicles. ACS Nano, 2016, 10, 7287-7296.	14.6	78
16	Bioelectronic Tongue Using Heterodimeric Human Taste Receptor for the Discrimination of Sweeteners with Human-like Performance. ACS Nano, 2014, 8, 9781-9789.	14.6	75
17	“Bioelectronic super-taster” device based on taste receptor-carbon nanotube hybrid structures. Lab on A Chip, 2011, 11, 2262.	6.0	71
18	Nanodisc-Based Bioelectronic Nose Using Olfactory Receptor Produced in <i>Escherichia coli</i> for the Assessment of the Death-Associated Odor Cadaverine. ACS Nano, 2017, 11, 11847-11855.	14.6	59

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19	Label-free brain tissue imaging using large-area terahertz metamaterials. <i>Biosensors and Bioelectronics</i> , 2020, 170, 112663.	10.1	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.	14.6	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.	10.1	49
22	Human dopamine receptor nanovesicles for gate-potential modulators in high-performance field-effect transistor biosensors. <i>Scientific Reports</i> , 2014, 4, 4342.	3.3	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.	14.9	47
24	Expression, Solubilization and Purification of a Human Olfactory Receptor from <i>Escherichia coli</i> . <i>Current Microbiology</i> , 2009, 59, 309-314.	2.2	46
25	Personalizing Biomaterials for Precision Nanomedicine Considering the Local Tissue Microenvironment. <i>Advanced Healthcare Materials</i> , 2015, 4, 1584-1599.	7.6	44
26	Highly selective and sensitive detection of neurotransmitters using receptor-modified single-walled carbon nanotube sensors. <i>Nanotechnology</i> , 2013, 24, 285501.	2.6	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.	10.1	39
28	Ultrasensitive, Selective, and Highly Stable Bioelectronic Nose That Detects the Liquid and Gaseous Cadaverine. <i>Analytical Chemistry</i> , 2019, 91, 12181-12190.	6.5	36
29	Real-time monitoring of geosmin based on an aptamer-conjugated graphene field-effect transistor. <i>Biosensors and Bioelectronics</i> , 2021, 174, 112804.	10.1	30
30	Integration of biomolecules and nanomaterials: Towards highly selective and sensitive biosensors. <i>Biotechnology Journal</i> , 2011, 6, 1310-1316.	3.5	29
31	In-situ food spoilage monitoring using a wireless chemical receptor-conjugated graphene electronic nose. <i>Biosensors and Bioelectronics</i> , 2022, 200, 113908.	10.1	27
32	Detection and discrimination of SARS-CoV-2 spike protein-derived peptides using THz metamaterials. <i>Biosensors and Bioelectronics</i> , 2022, 202, 113981.	10.1	27
33	Wireless portable bioelectronic nose device for multiplex monitoring toward food freshness/spoilage. <i>Biosensors and Bioelectronics</i> , 2022, 215, 114551.	10.1	27
34	Dopamine Receptor D1 Agonism and Antagonism Using a Field-Effect Transistor Assay. <i>ACS Nano</i> , 2017, 11, 5950-5959.	14.6	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.	2.6	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.	7.8	15

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37	Screening of cell-penetrating peptides using mRNA display. Biotechnology Journal, 2012, 7, 387-396.	3.5	13
38	Artificial Rod and Cone Photoreceptors with Human-like Spectral Sensitivities. Advanced Materials, 2018, 30, e1706764.	21.0	12
39	Clinical proteomic analysis of scrub typhus infection. Clinical Proteomics, 2018, 15, 6.	2.1	10
40	Nanovesicle-based platform for the electrophysiological monitoring of aquaporin-4 and the real-time detection of its antibody. Biosensors and Bioelectronics, 2014, 61, 140-146.	10.1	6
41	Photosensitive Nanodiscs Composed of Human Photoreceptors for Refractive Index Modulation at Selective Wavelengths. Nano Letters, 2022, 22, 6825-6832.	9.1	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