

Taek Lee

List of Publications by Year in descending order

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81
papers

2,095
citations

236925

25
h-index

265206

42
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82
all docs

82
docs citations

82
times ranked

2412
citing authors

#	ARTICLE	IF	CITATIONS
1	Fabrication of a surface-enhanced Raman spectroscopy-based analytical method consisting of multifunctional DNA three-way junction-conjugated porous gold nanoparticles and Au-Te nanoworm for C-reactive protein detection. <i>Analytical and Bioanalytical Chemistry</i> , 2022, 414, 3197-3204.	3.7	13
2	Fabrication of MERS-nanovesicle biosensor composed of multi-functional DNA aptamer/graphene-MoS ₂ nanocomposite based on electrochemical and surface-enhanced Raman spectroscopy. <i>Sensors and Actuators B: Chemical</i> , 2022, 352, 131060.	7.8	34
3	A pretreatment-free electrical capacitance biosensor for exosome detection in undiluted serum. <i>Biosensors and Bioelectronics</i> , 2022, 199, 113872.	10.1	28
4	Improved Productivity of Naringin Oleate with Flavonoid and Fatty Acid by Efficient Enzymatic Esterification. <i>Antioxidants</i> , 2022, 11, 242.	5.1	13
5	Enhanced Production of Bacterial Cellulose from Miscanthus as Sustainable Feedstock through Statistical Optimization of Culture Conditions. <i>International Journal of Environmental Research and Public Health</i> , 2022, 19, 866.	2.6	21
6	Efficient Production of Naringin Acetate with Different Acyl Donors via Enzymatic Transesterification by Lipases. <i>International Journal of Environmental Research and Public Health</i> , 2022, 19, 2972.	2.6	6
7	Recent Trends in Biosensors Based on Electrochemical and Optical Techniques for Cyanobacterial Neurotoxin Detection. <i>Biochip Journal</i> , 2022, 16, 146-157.	4.9	10
8	Rapid electrochemical dual-target biosensor composed of an Aptamer/MXene hybrid on Au microgap electrodes for cytokines detection. <i>Biosensors and Bioelectronics</i> , 2022, 207, 114159.	10.1	36
9	Electrochemical biosensor with aptamer/porous platinum nanoparticle on round-type micro-gap electrode for saxitoxin detection in fresh water. <i>Biosensors and Bioelectronics</i> , 2022, 210, 114300.	10.1	23
10	Recent Advances in DNA Nanotechnology for Plasmonic Biosensor Construction. <i>Biosensors</i> , 2022, 12, 418.	4.7	5
11	Plasma-mediated enhancement of enzyme secretion in <i>Aspergillus oryzae</i> . <i>Microbial Biotechnology</i> , 2021, 14, 262-276.	4.2	16
12	Fabrication of ultrasensitive electrochemical biosensor for dengue fever viral RNA Based on CRISPR/Cpf1 reaction. <i>Sensors and Actuators B: Chemical</i> , 2021, 326, 128677.	7.8	54
13	Fabrication of Electrochemical Influenza Virus (H1N1) Biosensor Composed of Multifunctional DNA Four-Way Junction and Molybdenum Disulfide Hybrid Material. <i>Materials</i> , 2021, 14, 343.	2.9	20
14	Fabrication of an electrochemical biosensor composed of multi-functional Ag ion intercalated DNA four-way junctions/rhodium nanoplate heterolayer on a micro-gap for C-reactive protein detection in human serum. <i>Analyst</i> , The, 2021, 146, 2131-2137.	3.5	17
15	Improved production of bacterial cellulose through investigation of effects of inhibitory compounds from lignocellulosic hydrolysates. <i>GCB Bioenergy</i> , 2021, 13, 436-444.	5.6	16
16	Recent Advances in CRP Biosensor Based on Electrical, Electrochemical and Optical Methods. <i>Sensors</i> , 2021, 21, 3024.	3.8	13
17	Fabrication of an Electrochemical Aptasensor Composed of Multifunctional DNA Three-Way Junction on Au Microgap Electrode for Interferon Gamma Detection in Human Serum. <i>Biomedicines</i> , 2021, 9, 692.	3.2	9
18	Fabrication of electrochemical biosensor composed of multi-functional DNA 4 way junction for TNF- α detection in human serum. <i>Bioelectrochemistry</i> , 2021, 142, 107939.	4.6	5

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19	Development of Colorimetric Whole-Cell Biosensor for Detection of Heavy Metals in Environment for Public Health. <i>International Journal of Environmental Research and Public Health</i> , 2021, 18, 12721.	2.6	6
20	Improving Biosensors by the Use of Different Nanomaterials: Case Study with Microcystins as Target Analytes. <i>Biosensors</i> , 2021, 11, 525.	4.7	7
21	Recent Advances in Aptasensor for Cytokine Detection: A Review. <i>Sensors</i> , 2021, 21, 8491.	3.8	18
22	Enhancing Neurogenesis of Neural Stem Cells Using Homogeneous Nanohole Pattern-Modified Conductive Platform. <i>International Journal of Molecular Sciences</i> , 2020, 21, 191.	4.1	15
23	Single Functionalized pRNA/Gold Nanoparticle for Ultrasensitive MicroRNA Detection Using Electrochemical Surface-Enhanced Raman Spectroscopy. <i>Advanced Science</i> , 2020, 7, 1902477.	11.2	53
24	Novel and Efficient Synthesis of Phenethyl Formate via Enzymatic Esterification of Formic Acid. <i>Biomolecules</i> , 2020, 10, 70.	4.0	21
25	Flexible Electronics for Monitoring in vivo Electrophysiology and Metabolite Signals. <i>Frontiers in Chemistry</i> , 2020, 8, 547591.	3.6	4
26	Fabrication of Bioprobe Self-Assembled on Au@Te Nanoworm Structure for SERS Biosensor. <i>Materials</i> , 2020, 13, 3234.	2.9	7
27	Enzymatic Synthesis of Formate Ester through Immobilized Lipase and Its Reuse. <i>Polymers</i> , 2020, 12, 1802.	4.5	23
28	Recent Advances in Biomolecule-Based Nanomaterial Heterolayer-Based Charge Storage Devices for Bioelectronic Applications. <i>Materials</i> , 2020, 13, 3520.	2.9	3
29	Recent Development of Aptasensor for Influenza Virus Detection. <i>Biochip Journal</i> , 2020, 14, 327-339.	4.9	38
30	Nanobiohybrid Material-Based Bioelectronic Devices. <i>Biotechnology Journal</i> , 2020, 15, e1900347.	3.5	13
31	Novel Hybrid Conductor of Irregularly Patterned Graphene Mesh and Silver Nanowire Networks. <i>Micromachines</i> , 2020, 11, 578.	2.9	3
32	Fabrication of electrochemical biosensor composed of multi-functional DNA/rhodium nanoplate heterolayer for thyroxine detection in clinical sample. <i>Colloids and Surfaces B: Biointerfaces</i> , 2020, 195, 111240.	5.0	28
33	Highly Sensitive Biosensors Based on Biomolecules and Functional Nanomaterials Depending on the Types of Nanomaterials: A Perspective Review. <i>Materials</i> , 2020, 13, 299.	2.9	70
34	Recent advances in nanomaterial-modified electrical platforms for the detection of dopamine in living cells. <i>Nano Convergence</i> , 2020, 7, 40.	12.1	30
35	H2O2 biosensor consisted of hemoglobin-DNA conjugate on nanoporous gold thin film electrode with electrochemical signal enhancement. <i>Nano Convergence</i> , 2019, 6, 1.	12.1	75
36	Fabrication of Troponin I Biosensor Composed of Multi-Functional DNA Structure/Au Nanocrystal Using Electrochemical and Localized Surface Plasmon Resonance Dual-Detection Method. <i>Nanomaterials</i> , 2019, 9, 1000.	4.1	30

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37	Label-free localized surface plasmon resonance biosensor composed of multi-functional DNA 3 way junction on hollow Au spike-like nanoparticles (HAuSN) for avian influenza virus detection. <i>Colloids and Surfaces B: Biointerfaces</i> , 2019, 182, 110341.	5.0	56
38	Flexible HIV-1 Biosensor Based on the Au/MoS ₂ Nanoparticles/Au Nanolayer on the PET Substrate. <i>Nanomaterials</i> , 2019, 9, 1076.	4.1	34
39	Enhanced L-Lysine into 1,5-Diaminopentane Conversion via Statistical Optimization of Whole-Cell Decarboxylation System. <i>Polymers</i> , 2019, 11, 1372.	4.5	15
40	Fabrication of electrochemical biosensor consisted of multi-functional DNA structure/porous Au nanoparticle for avian influenza virus (H5N1) in chicken serum. <i>Materials Science and Engineering C</i> , 2019, 99, 511-519.	7.3	87
41	Multifunctional Nanobiohybrid Material Composed of Ag@Bi ₂ Se ₃ /RNA Three-Way Junction/miRNA/Retinoic Acid for Neuroblastoma Differentiation. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 8779-8788.	8.0	20
42	Flexible electrochemical glucose biosensor based on GOx/gold/MoS ₂ /gold nanofilm on the polymer electrode. <i>Biosensors and Bioelectronics</i> , 2019, 140, 111343.	10.1	83
43	Development of Bioelectronic Devices Using Bionanohybrid Materials for Biocomputation System. <i>Micromachines</i> , 2019, 10, 347.	2.9	11
44	Development of the Troponin Detection System Based on the Nanostructure. <i>Micromachines</i> , 2019, 10, 203.	2.9	17
45	Fabrication of electrochemical biosensor composed of multi-functional DNA structure/Au nanospire on micro-gap/PCB system for detecting troponin I in human serum. <i>Colloids and Surfaces B: Biointerfaces</i> , 2019, 175, 343-350.	5.0	54
46	Magnetic Oleosome as a Functional Lipophilic Drug Carrier for Cancer Therapy. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 9301-9309.	8.0	42
47	Electrochemical Biosensor Composed of Silver Ion-Mediated dsDNA on Au-Encapsulated Bi ₂ Se ₃ Nanoparticles for the Detection of H ₂ O ₂ Released from Breast Cancer Cells. <i>Small</i> , 2018, 14, e1703970.	10.0	74
48	Spectroelectrochemical detection of microRNA-155 based on functional RNA immobilization onto ITO/GNP nanopattern. <i>Journal of Biotechnology</i> , 2018, 274, 40-46.	3.8	24
49	Fabrication of Electrochemical-Based Bioelectronic Device and Biosensor Composed of Biomaterial-Nanomaterial Hybrid. <i>Advances in Experimental Medicine and Biology</i> , 2018, 1064, 263-296.	1.6	10
50	Recent Advances in AIV Biosensors Composed of Nanobio Hybrid Material. <i>Micromachines</i> , 2018, 9, 651.	2.9	31
51	Nanobiosensing Platforms for Real-time and Non-Invasive Monitoring of Stem Cell Pluripotency and Differentiation. <i>Sensors</i> , 2018, 18, 2755.	3.8	23
52	Improved reutilization of industrial crude lysine to 1,5-diaminopentane by enzymatic decarboxylation using various detergents and organic solvents. <i>Korean Journal of Chemical Engineering</i> , 2018, 35, 1854-1859.	2.7	9
53	Bifunctional Au@Bi ₂ Se ₃ Core-Shell Nanoparticle for Synergetic Therapy by SERS-Traceable AntagomiR Delivery and Photothermal Treatment. <i>Small</i> , 2018, 14, e1802934.	10.0	47
54	Electrochemical H ₂ O ₂ biosensor composed of myoglobin on MoS ₂ nanoparticle-graphene oxide hybrid structure. <i>Biosensors and Bioelectronics</i> , 2017, 93, 14-20.	10.1	113

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55	Electrochemical nitric oxide biosensor based on amine-modified MoS ₂ /graphene oxide/myoglobin hybrid. <i>Colloids and Surfaces B: Biointerfaces</i> , 2017, 159, 729-736.	5.0	38
56	Electrochemical nucleic acid detection based on parallel structural dsDNA/recombinant azurin hybrid. <i>Biosensors and Bioelectronics</i> , 2017, 98, 292-298.	10.1	25
57	Recombinant azurin-CdSe/ZnS hybrid structures for nanoscale resistive random access memory device. <i>Biosensors and Bioelectronics</i> , 2017, 90, 23-30.	10.1	24
58	Azurin/CdSe-ZnS-Based Bio-Nano Hybrid Structure for Nanoscale Resistive Memory Device. <i>Materials</i> , 2017, 10, 803.	2.9	4
59	Investigation of Hemoglobin/Gold Nanoparticle Heterolayer on Micro-Gap for Electrochemical Biosensor Application. <i>Sensors</i> , 2016, 16, 660.	3.8	9
60	Nano-Biosensor for Monitoring the Neural Differentiation of Stem Cells. <i>Nanomaterials</i> , 2016, 6, 224.	4.1	18
61	Dual-Level Biomemory Device Composed of Cytochrome c/DNA/Myoglobin Heterolayer. <i>Journal of Nanoscience and Nanotechnology</i> , 2016, 16, 8724-8727.	0.9	1
62	Fabrication of fusion protein-based heterolayers composed of redox protein/myoglobin for bioelectronic device. <i>Biochip Journal</i> , 2016, 10, 103-110.	4.9	4
63	DNA-Recombinant Azurin Conjugation as a Biomemory Platform with Enhanced Sensitivity. <i>Journal of Nanoscience and Nanotechnology</i> , 2016, 16, 11857-11861.	0.9	2
64	Electrochemical Bioelectronic Device Consisting of Metalloprotein for Analog Decision Making. <i>Scientific Reports</i> , 2015, 5, 14501.	3.3	8
65	A biomemory chip composed of a myoglobin/CNT heterolayer fabricated by the protein-adsorption-precipitation-crosslinking (PAPC) technique. <i>Colloids and Surfaces B: Biointerfaces</i> , 2015, 136, 853-858.	5.0	6
66	Graphene-Based Materials for Stem Cell Applications. <i>Materials</i> , 2015, 8, 8674-8690.	2.9	59
67	Construction of RNA-Quantum Dot Chimera for Nanoscale Resistive Biomemory Application. <i>ACS Nano</i> , 2015, 9, 6675-6682.	14.6	52
68	RNA as a stable polymer to build controllable and defined nanostructures for material and biomedical applications. <i>Nano Today</i> , 2015, 10, 631-655.	11.9	103
69	Fusion protein bilayer fabrication composed of recombinant azurin/cytochrome P450 by the sortase-mediated ligation method. <i>Colloids and Surfaces B: Biointerfaces</i> , 2014, 120, 215-221.	5.0	3
70	Fabrication of Biomolecules Self-Assembled on Au Nanodot Array for Bioelectronic Device. <i>Journal of Nanoscience and Nanotechnology</i> , 2013, 13, 6020-6026.	0.9	0
71	Nanoscale Biofilm Modification-Method Concerning a Myoglobin/11-MUA Bilayers for Bioelectronic Device. <i>Journal of Nanoscience and Nanotechnology</i> , 2012, 12, 4119-4126.	0.9	1
72	Multifunctional 4-bit biomemory chip consisting of recombinant azurin variants. <i>Biomaterials</i> , 2011, 32, 3815-3821.	11.4	28

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73	Multifunctional DNA-based biomemory device consisting of ssDNA/Cu heterolayers. Biosensors and Bioelectronics, 2011, 26, 2304-2310.	10.1	10
74	Signal Enhancement of Electrochemical Biomemory Device Composed of Recombinant Azurin/Gold Nanoparticle. Electroanalysis, 2011, 23, 2023-2029.	2.9	16
75	Protein-Based Multi-Bit Biomemory Device Consisting of Various Metalloproteins on Self-Assembled 11-MUA Layer. Journal of Nanoscience and Nanotechnology, 2011, 11, 523-527.	0.9	3
76	NANOSCALE BIOELECTRONIC DEVICE CONSISTING OF BIOMOLECULES. , 2010, , 347-374.		0
77	Electrochemical biomemory device consisting of recombinant protein molecules. Biotechnology and Bioprocess Engineering, 2010, 15, 30-39.	2.6	10
78	Multilevel Biomemory Device Consisting of Recombinant Azurin/Cytochrome c. Advanced Materials, 2010, 22, 510-514.	21.0	105
79	Verification of surfactant CHAPS effect using AFM for making biomemory device consisting of recombinant azurin monolayer. Ultramicroscopy, 2010, 110, 712-717.	1.9	7
80	Fabrication of Biomemory Device Composed of Myoglobin on DTSSP Layer. Molecular Crystals and Liquid Crystals, 2010, 519, 19-26.	0.9	6
81	Fabrication of Nano Scaled Protein Monolayer Consisting of Cytochrome c on Self-Assembled 11-MUA Layer for Bioelectronic Device. Journal of Nanoscience and Nanotechnology, 2009, 9, 7136-40.	0.9	6