# Jeong-Woo Choi

#### List of Publications by Citations

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181<br/>papers5,156<br/>citations39<br/>h-index65<br/>g-index186<br/>ext. papers5,733<br/>ext. citations7<br/>avg, IF5.76<br/>L-index

#	Paper	IF	Citations
181	Phototactic guidance of a tissue-engineered soft-robotic ray. <i>Science</i> , <b>2016</b> , 353, 158-62	33.3	371
180	Surface plasmon resonance immunosensor for the detection of Salmonella typhimurium. <i>Biosensors and Bioelectronics</i> , <b>2004</b> , 19, 1497-504	11.8	182
179	A glucose biosensor based on TiO2-Graphene composite. <i>Biosensors and Bioelectronics</i> , <b>2012</b> , 38, 184-8	11.8	165
178	Microchip-based one step DNA extraction and real-time PCR in one chamber for rapid pathogen identification. <i>Lab on A Chip</i> , <b>2006</b> , 6, 886-95	7.2	152
177	3D label-free prostate specific antigen (PSA) immunosensor based on graphene-gold composites. <i>Biosensors and Bioelectronics</i> , <b>2015</b> , 63, 546-551	11.8	140
176	Prospects for graphene-nanoparticle-based hybrid sensors. <i>Physical Chemistry Chemical Physics</i> , <b>2013</b> , 15, 12785-99	3.6	132
175	Controlling differentiation of adipose-derived stem cells using combinatorial graphene hybrid-pattern arrays. <i>ACS Nano</i> , <b>2015</b> , 9, 3780-90	16.7	124
174	Study on orientation of immunoglobulin G on protein G layer. <i>Biosensors and Bioelectronics</i> , <b>2005</b> , 21, 103-10	11.8	117
173	3D graphene oxide-encapsulated gold nanoparticles to detect neural stem cell differentiation. <i>Biomaterials</i> , <b>2013</b> , 34, 8660-70	15.6	115
172	Immunosensor for detection of Legionella pneumophila using surface plasmon resonance. <i>Biosensors and Bioelectronics</i> , <b>2003</b> , 18, 605-11	11.8	109
171	Multilevel biomemory device consisting of recombinant azurin/cytochrome C. <i>Advanced Materials</i> , <b>2010</b> , 22, 510-4	24	98
170	Electrochemical HO biosensor composed of myoglobin on MoS nanoparticle-graphene oxide hybrid structure. <i>Biosensors and Bioelectronics</i> , <b>2017</b> , 93, 14-20	11.8	93
169	Fabrication of self-assembled protein A monolayer and its application as an immunosensor. <i>Biosensors and Bioelectronics</i> , <b>2003</b> , 19, 185-92	11.8	93
168	The fabrication of protein chip based on surface plasmon resonance for detection of pathogens. <i>Biosensors and Bioelectronics</i> , <b>2005</b> , 20, 1847-50	11.8	90
167	Immunosensor for the detection of Vibrio cholerae O1 using surface plasmon resonance. <i>Biosensors and Bioelectronics</i> , <b>2006</b> , 21, 2315-9	11.8	86
166	Surface plasmon resonance immunosensor using self-assembled protein G for the detection of Salmonella paratyphi. <i>Journal of Biotechnology</i> , <b>2004</b> , 111, 1-8	3.7	80
165	Cell immobilization using self-assembled synthetic oligopeptide and its application to biological toxicity detection using surface plasmon resonance. <i>Biosensors and Bioelectronics</i> , <b>2005</b> , 20, 2300-5	11.8	71

## (2004-2001)

164	Optical organophosphorus biosensor consisting of acetylcholinesterase/viologen hetero Langmuir-Blodgett film. <i>Biosensors and Bioelectronics</i> , <b>2001</b> , 16, 937-43	11.8	71
163	Application of peptide nucleic acid towards development of nanobiosensor arrays.  Bioelectrochemistry, <b>2010</b> , 79, 153-61	5.6	69
162	Three-dimensional crumpled graphene-based platinumBold alloy nanoparticle composites as superior electrocatalysts for direct methanol fuel cells. <i>Carbon</i> , <b>2015</b> , 93, 869-877	10.4	68
161	Ultra-sensitive surface plasmon resonance based immunosensor for prostate-specific antigen using gold nanoparticleIntibody complex. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , <b>2008</b> , 313-314, 655-659	5.1	62
160	Cell adhesion, spreading, and proliferation on surface functionalized with RGD nanopillar arrays. <i>Biomaterials</i> , <b>2012</b> , 33, 731-9	15.6	60
159	An enzymatic biosensor for hydrogen peroxide based on CeO2 nanostructure electrodeposited on ITO surface. <i>Biosensors and Bioelectronics</i> , <b>2013</b> , 47, 385-90	11.8	58
158	Electrochemical performance of gold nanoparticle-cytochrome c hybrid interface for H2O2 detection. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2012</b> , 92, 161-7	6	58
157	Detection of effect of chemotherapeutic agents to cancer cells on gold nanoflower patterned substrate using surface-enhanced Raman scattering and cyclic voltammetry. <i>Biosensors and Bioelectronics</i> , <b>2010</b> , 26, 1486-92	11.8	56
156	CRISPR-Cas12a-Based Nucleic Acid Amplification-Free DNA Biosensor via Au Nanoparticle-Assisted Metal-Enhanced Fluorescence and Colorimetric Analysis. <i>Nano Letters</i> , <b>2021</b> , 21, 693-699	11.5	55
155	Electrochemical Detection of Dopamine Using 3D Porous Graphene Oxide/Gold Nanoparticle Composites. <i>Sensors</i> , <b>2017</b> , 17,	3.8	54
154	Cell-based chip for the detection of anticancer effect on HeLa cells using cyclic voltammetry. <i>Biosensors and Bioelectronics</i> , <b>2009</b> , 24, 1259-65	11.8	54
153	Flexible electrochemical glucose biosensor based on GOx/gold/MoS/gold nanofilm on the polymer electrode. <i>Biosensors and Bioelectronics</i> , <b>2019</b> , 140, 111343	11.8	53
152	Graphene-Based Materials for Stem Cell Applications. <i>Materials</i> , <b>2015</b> , 8, 8674-8690	3.5	51
151	Polyelectrolyte multilayer microcapsules: Self-assembly and toward biomedical applications. <i>Biotechnology and Bioprocess Engineering</i> , <b>2007</b> , 12, 323-332	3.1	50
150	Molecular-scale biophotodiode consisting of a green fluorescent protein/cytochrome c self-assembled heterolayer. <i>Applied Physics Letters</i> , <b>2004</b> , 84, 2187-2189	3.4	50
149	Large-Scale Nanoelectrode Arrays to Monitor the Dopaminergic Differentiation of Human Neural Stem Cells. <i>Advanced Materials</i> , <b>2015</b> , 27, 6356-62	24	46
148	Protein-based biomemory device consisting of the cysteine-modified azurin. <i>Applied Physics Letters</i> , <b>2007</b> , 91, 263902	3.4	46
147	Nanoscale fabrication of biomolecular layer and its application to biodevices. <i>Biotechnology and Bioprocess Engineering</i> , <b>2004</b> , 9, 76-85	3.1	45

146	Immobilization of antibody fragment for immunosensor application based on surface plasmon resonance. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2005</b> , 40, 143-8	6	45
145	One-Step Synthesis of Pt-Nanoparticles-Laden Graphene Crumples by Aerosol Spray Pyrolysis and Evaluation of Their Electrocatalytic Activity. <i>Aerosol Science and Technology</i> , <b>2013</b> , 47, 93-98	3.4	43
144	Rectified photocurrent of the protein-based bio-photodiode. <i>Applied Physics Letters</i> , <b>2001</b> , 79, 1570-15	7 <b>3</b> .4	41
143	Synthesis of metal nanoparticles inside living human cells based on the intracellular formation process. <i>Advanced Materials</i> , <b>2014</b> , 26, 910-8	24	39
142	ITO/gold nanoparticle/RGD peptide composites to enhance electrochemical signals and proliferation of human neural stem cells. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , <b>2013</b> , 9, 336-44	6	39
141	Live cell biosensing platforms using graphene-based hybrid nanomaterials. <i>Biosensors and Bioelectronics</i> , <b>2017</b> , 94, 485-499	11.8	38
140	HO biosensor consisted of hemoglobin-DNA conjugate on nanoporous gold thin film electrode with electrochemical signal enhancement. <i>Nano Convergence</i> , <b>2019</b> , 6, 1	9.2	37
139	Rectified photocurrent of molecular photodiode consisting of cytochrome c/GFP hetero thin films. <i>Biosensors and Bioelectronics</i> , <b>2001</b> , 16, 819-25	11.8	36
138	Nondestructive Real-Time Monitoring of Enhanced Stem Cell Differentiation Using a Graphene-Au Hybrid Nanoelectrode Array. <i>Advanced Materials</i> , <b>2018</b> , 30, e1802762	24	34
137	Analysis of intracellular state based on controlled 3D nanostructures mediated surface enhanced Raman scattering. <i>PLoS ONE</i> , <b>2011</b> , 6, e15836	3.7	34
136	Electrochemical cell-based chip for the detection of toxic effects of bisphenol-A on neuroblastoma cells. <i>Biosensors and Bioelectronics</i> , <b>2011</b> , 26, 3371-5	11.8	33
135	Nanostructured surfaces for analysis of anticancer drug and cell diagnosis based on electrochemical and SERS tools. <i>Nano Convergence</i> , <b>2018</b> , 5, 11	9.2	32
134	Protein array consisting of sol-gel bioactive platform for detection of E. coli O157:H7. <i>Biosensors and Bioelectronics</i> , <b>2005</b> , 20, 2292-9	11.8	32
133	Optical biosensor consisting of glutathione-S-transferase for detection of captan. <i>Biosensors and Bioelectronics</i> , <b>2003</b> , 18, 1461-6	11.8	31
132	In situ monitoring of doxorubicin release from biohybrid nanoparticles modified with antibody and cell-penetrating peptides in breast cancer cells using surface-enhanced Raman spectroscopy. <i>Biosensors and Bioelectronics</i> , <b>2015</b> , 71, 300-305	11.8	30
131	Amperometric sensor for hydrogen peroxide based on direct electron transfer of spinach ferredoxin on Au electrode. <i>Bioelectrochemistry</i> , <b>2011</b> , 80, 169-74	5.6	29
130	Analysis of effect of nanoporous alumina substrate coated with polypyrrole nanowire on cell morphology based on AFM topography. <i>Ultramicroscopy</i> , <b>2010</b> , 110, 676-81	3.1	29
129	Electrochemical Dopamine Biosensor Composed of Silver Encapsulated MoS2 Hybrid Nanoparticle. Biotechnology and Bioprocess Engineering, <b>2019</b> , 24, 135-144	3.1	28

### (1998-2017)

128	Electrochemical nitric oxide biosensor based on amine-modified MoS/graphene oxide/myoglobin hybrid. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2017</b> , 159, 729-736	6	28
127	Ultrathin polyaniline film coated on an indium <b>l</b> in oxide cell-based chip for study of anticancer effect. <i>Thin Solid Films</i> , <b>2009</b> , 518, 661-667	2.2	28
126	Effects of nanopatterned RGD peptide layer on electrochemical detection of neural cell chip. <i>Biosensors and Bioelectronics</i> , <b>2010</b> , 26, 1359-65	11.8	28
125	Multifunctional 4-bit biomemory chip consisting of recombinant azurin variants. <i>Biomaterials</i> , <b>2011</b> , 32, 3815-21	15.6	27
124	Surface plasmon resonance immunosensor for the detection of Yersinia enterocolitica. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , <b>2005</b> , 257-258, 369-374	5.1	27
123	Fabrication of new single cell chip to monitor intracellular and extracellular redox state based on spectroelectrochemical method. <i>Biomaterials</i> , <b>2015</b> , 40, 80-7	15.6	26
122	Deposition behavior and photoelectrochemical characteristics of chlorophylla Langmuir-Blodgett films. <i>Biotechnology and Bioprocess Engineering</i> , <b>2001</b> , 6, 183-188	3.1	25
121	Highly sensitive electrochemical detection of potential cytotoxicity of CdSe/ZnS quantum dots using neural cell chip. <i>Biosensors and Bioelectronics</i> , <b>2012</b> , 32, 266-72	11.8	24
120	Fabrication of gold nanodot arrays on a transparent substrate as a nanobioplatform for label-free visualization of living cells. <i>Nanotechnology</i> , <b>2011</b> , 22, 235304	3.4	24
119	Nanoscale fabrication of protein A on self-assembled monolayer and its application to surface plasmon resonance immunosensor. <i>Enzyme and Microbial Technology</i> , <b>2004</b> , 35, 678-682	3.8	24
118	Polyaniline based catalase biosensor for the detection of hydrogen peroxide and azide. <i>Biotechnology and Bioprocess Engineering</i> , <b>2009</b> , 14, 443-449	3.1	23
117	Synthesis of graphene based noble metal composites for glucose biosensor. <i>Materials Letters</i> , <b>2013</b> , 106, 277-280	3.3	22
116	Electrochemical nucleic acid detection based on parallel structural dsDNA/recombinant azurin hybrid. <i>Biosensors and Bioelectronics</i> , <b>2017</b> , 98, 292-298	11.8	22
115	Fabrication of cell chip for detection of cell cycle progression based on electrochemical method. <i>Analytical Chemistry</i> , <b>2011</b> , 83, 2104-11	7.8	22
114	The immobilization of animal cells using the cysteine-modified RGD oligopeptide. <i>Ultramicroscopy</i> , <b>2008</b> , 108, 1144-7	3.1	22
113	Photoelectrical properties of molecular layer consisting of chlorophyll afferredoxin heterostructure. <i>Applied Physics Letters</i> , <b>2004</b> , 85, 6275-6277	3.4	22
112	Fabrication of DNA-protein conjugate layer on gold-substrate and its application to immunosensor. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2005</b> , 40, 173-7	6	22
111	Photoinduced electron transfer in a MIM device composed of ferrocene-flavin-viologen-TCNQ molecular heterojunctions. <i>Thin Solid Films</i> , <b>1998</b> , 327-329, 671-675	2.2	21

110	Resistive switching biodevice composed of MoS2-DNA heterolayer on the gold electrode. <i>Applied Surface Science</i> , <b>2019</b> , 478, 134-141	6.7	20
109	Priming nanoparticle-guided diagnostics and therapeutics towards human organs-on-chips microphysiological system. <i>Nano Convergence</i> , <b>2016</b> , 3, 24	9.2	20
108	In situ label-free quantification of human pluripotent stem cells with electrochemical potential. <i>Biomaterials</i> , <b>2016</b> , 75, 250-259	15.6	20
107	Electrochemical cell chip to detect environmental toxicants based on cell cycle arrest technique. <i>Biosensors and Bioelectronics</i> , <b>2013</b> , 41, 192-8	11.8	20
106	Multi-bit biomemory consisting of recombinant protein variants, azurin. <i>Biosensors and Bioelectronics</i> , <b>2009</b> , 24, 1503-7	11.8	20
105	Nanoscale protein-based memory device composed of recombinant azurin. <i>Biomaterials</i> , <b>2010</b> , 31, 1293	3 <b>-8</b> 5.6	20
104	Bioprocessing Device Composed of Protein/DNA/Inorganic Material Hybrid. <i>Advanced Functional Materials</i> , <b>2014</b> , 24, 1781-1789	15.6	19
103	Synthesis of 3D Silver-Graphene-Titanium Dioxide Composite via Aerosol Spray Pyrolysis for Sensitive Glucose Biosensor. <i>Aerosol Science and Technology</i> , <b>2015</b> , 49, 538-546	3.4	18
102	Noble Metal-Assisted Surface Plasmon Resonance Immunosensors. <i>Sensors</i> , <b>2020</b> , 20,	3.8	18
101	Spectroelectrochemical detection of microRNA-155 based on functional RNA immobilization onto ITO/GNP nanopattern. <i>Journal of Biotechnology</i> , <b>2018</b> , 274, 40-46	3.7	18
100	Recombinant azurin-CdSe/ZnS hybrid structures for nanoscale resistive random access memory device. <i>Biosensors and Bioelectronics</i> , <b>2017</b> , 90, 23-30	11.8	18
99	Detection of Neurotransmitters from Stem Cell-Derived Neural Interface at the Single-Cell Level via Graphene-Hybrid SERS Nanobiosensing. <i>Nano Letters</i> , <b>2020</b> , 20, 7670-7679	11.5	18
98	Fiber-optic biosensor for the detection of organophosphorus compounds using AChE-immobilized viologen LB films. <i>Thin Solid Films</i> , <b>1998</b> , 327-329, 676-680	2.2	16
97	Site-directed immobilization of antibody onto solid surfaces for the construction of immunochip. <i>Biotechnology and Bioprocess Engineering</i> , <b>2004</b> , 9, 112-117	3.1	16
96	Immunosensor for detection of Legionella pneumophila based on imaging ellipsometry. <i>Materials Science and Engineering C</i> , <b>2004</b> , 24, 61-64	8.3	16
95	Adsorption behavior and photoelectric response characteristics of bacteriorhodopsin thin films fabricated by self-assembly technique. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2002</b> , 23, 327-337	6	16
94	Optical biosensor for simultaneous detection of captan and organophosphorus compounds. <i>Biosensors and Bioelectronics</i> , <b>2003</b> , 18, 591-7	11.8	16
93	Color image detection by biomolecular photoreceptor using bacteriorhodopsin-based complex LB films. <i>Biosensors and Bioelectronics</i> , <b>2001</b> , 16, 925-35	11.8	16

### (2010-1996)

92	Molecular Photodiode Consisting of Flavin-Viologen Hetero-Langmuir-Blodgett Films. <i>Molecular Crystals and Liquid Crystals</i> , <b>1996</b> , 280, 367-372		16	
91	A robust nanoscale biomemory device composed of recombinant azurin on hexagonally packed Au-nano array. <i>Biosensors and Bioelectronics</i> , <b>2013</b> , 40, 283-90	11.8	15	
90	In situ electrochemical detection of embryonic stem cell differentiation. <i>Journal of Biotechnology</i> , <b>2013</b> , 166, 1-5	3.7	14	
89	Signal Enhancement of Electrochemical Biomemory Device Composed of Recombinant Azurin/Gold Nanoparticle. <i>Electroanalysis</i> , <b>2011</b> , 23, 2023-2029	3	14	
88	Nanoscaled redox active protein adsorption on Au-dot arrays: An electrochemical scanning probe microscopic investigation for application in nano-biodevices. <i>Thin Solid Films</i> , <b>2009</b> , 518, 634-637	2.2	14	
87	Surface plasmon resonance immunosensor for detection ofLegionella pneumophila. <i>Biotechnology and Bioprocess Engineering</i> , <b>2003</b> , 8, 112-116	3.1	14	
86	Nano-Biosensor for Monitoring the Neural Differentiation of Stem Cells. <i>Nanomaterials</i> , <b>2016</b> , 6,	5.4	14	
85	Multifunctional Nanobiohybrid Material Composed of Ag@BiSe/RNA Three-Way Junction/miRNA/Retinoic Acid for Neuroblastoma Differentiation. <i>ACS Applied Materials &amp;</i> Interfaces, <b>2019</b> , 11, 8779-8788	9.5	13	
84	Three-dimensional mesoporous gold film to enhance the sensitivity of electrochemical detection. <i>Nanotechnology</i> , <b>2010</b> , 21, 455501	3.4	13	
83	Microdevice Platform for In Vitro Nervous System and Its Disease Model. <i>Bioengineering</i> , <b>2017</b> , 4,	5.3	12	
82	Fabrication of self-assembled RGD layer for cell chip to detect anticancer drug effect on HepG2 cells. <i>Current Applied Physics</i> , <b>2009</b> , 9, e76-e80	2.6	12	
81	Fabrication of porous nanostructured TiO2 particles by an aerosol templating method. <i>Ultramicroscopy</i> , <b>2008</b> , 108, 1241-5	3.1	12	
80	The fabrication of functional biosurface composed of iron storage protein, ferritin. <i>Ultramicroscopy</i> , <b>2008</b> , 108, 1356-9	3.1	12	
79	Application of complement 1q for the site-selective recognition of immune complex in protein chip. <i>Biosensors and Bioelectronics</i> , <b>2006</b> , 22, 764-7	11.8	12	
78	STM and cyclic voltammetric investigation of recombinant azurin-gold nanoparticle hybrids. <i>Bioelectrochemistry</i> , <b>2012</b> , 83, 8-14	5.6	11	
77	Multifunctional DNA-based biomemory device consisting of ssDNA/Cu heterolayers. <i>Biosensors and Bioelectronics</i> , <b>2011</b> , 26, 2304-10	11.8	10	
76	Write-Once <b>R</b> ead-Many-Times (WORM) biomemory device consisting of cysteine modified ferredoxin. <i>Electrochemistry Communications</i> , <b>2009</b> , 11, 854-858	5.1	10	
75	Electrochemical biomemory device consisting of recombinant protein molecules. <i>Biotechnology and Bioprocess Engineering</i> , <b>2010</b> , 15, 30-39	3.1	10	

74	Nanoscale fabrication of a peptide layer in cell chip to detect effects of environmental toxins on HEK293 cells. <i>Biotechnology Letters</i> , <b>2010</b> , 32, 1797-802	3	10
73	Electrical Impedance Monitoring of C2C12 Myoblast Differentiation on an Indium Tin Oxide Electrode. <i>Sensors</i> , <b>2016</b> , 16,	3.8	10
72	Development of Bioelectronic Devices Using Bionanohybrid Materials for Biocomputation System. <i>Micromachines</i> , <b>2019</b> , 10,	3.3	9
71	Magnetic Force-Driven Graphene Patterns to Direct Synaptogenesis of Human Neuronal Cells. <i>Materials</i> , <b>2017</b> , 10,	3.5	9
70	Aerosol Processing of Graphene and Its Application to Oil Absorbent and Glucose Biosensor. <i>KONA Powder and Particle Journal</i> , <b>2014</b> , 31, 111-125	3.4	9
69	Electrochemical Detection of Bisphenol A Induced Neuronal Toxicity Using RGD Peptide Modified ITO Electrode Cell Chip. <i>Molecular Crystals and Liquid Crystals</i> , <b>2010</b> , 519, 36-42	0.5	9
68	Electrical detection of beta-amyloid (1-40) using scanning tunneling microscopy. <i>Ultramicroscopy</i> , <b>2009</b> , 109, 923-8	3.1	9
67	Investigation of the redox property of a metalloprotein layer self-assembled on various chemical linkers. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2011</b> , 87, 36-41	6	9
66	Signal analysis of fiber-optic biosensor for the detection of organophosphorus compounds in the contaminated water. <i>Korean Journal of Chemical Engineering</i> , <b>1997</b> , 14, 101-108	2.8	9
65	Bioelectronic device consisting of cytochrome c/poly-L-aspartic acid adsorbed hetero-Langmuir-Blodgett films. <i>Journal of Biotechnology</i> , <b>2002</b> , 94, 225-33	3.7	8
64	Control of electrochemical signals from quantum dots conjugated to organic materials by using DNA structure in an analog logic gate. <i>Bioelectrochemistry</i> , <b>2016</b> , 111, 1-6	5.6	8
63	Electrochemical Bioelectronic Device Consisting of Metalloprotein for Analog Decision Making. <i>Scientific Reports</i> , <b>2015</b> , 5, 14501	4.9	7
62	Multilevel electrochemical signal detections of metalloprotein heterolayers for bioelectronic device. <i>Thin Solid Films</i> , <b>2014</b> , 551, 174-180	2.2	7
61	Nanoscale film formation of ferritin and its application to biomemory device. <i>Ultramicroscopy</i> , <b>2009</b> , 109, 974-9	3.1	7
60	Charge storage investigation in self-assembled monolayer of redox-active recombinant azurin. <i>Current Applied Physics</i> , <b>2009</b> , 9, e71-e75	2.6	7
59	Uv-Curable Polymer Electrolyte. <i>Molecular Crystals and Liquid Crystals</i> , <b>1997</b> , 294, 225-228		7
58	Ultrasonic pretreatment for thermophilic aerobic digestion in industrial waste activated sludge treatment. <i>Biotechnology and Bioprocess Engineering</i> , <b>2000</b> , 5, 469-474	3.1	7
57	Photoelectric conversion of bacteriorhodopsin films fabricated by self-assembly technique. <i>Synthetic Metals</i> , <b>2001</b> , 117, 141-143	3.6	7

### (2014-1999)

56	Kinetic model of cell growth and secondary metabolite synthesis in plant cell culture of Thalictrum rugosum. <i>Biotechnology and Bioprocess Engineering</i> , <b>1999</b> , 4, 129-137	3.1	7	
55	Optical Detection of Pathogens using Protein Chip <b>2008</b> , 348-362		7	
54	Nanoscale biomemory composed of recombinant azurin on a nanogap electrode. <i>Nanotechnology</i> , <b>2013</b> , 24, 365301	3.4	6	
53	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> , <b>2015</b> , 136, 853-8	6	6	
52	Fabrication of Biomemory Device Composed of Myoglobin on DTSSP Layer. <i>Molecular Crystals and Liquid Crystals</i> , <b>2010</b> , 519, 19-26	0.5	6	
51	The development of protein chip using protein G for the simultaneous detection of various pathogens. <i>Ultramicroscopy</i> , <b>2008</b> , 108, 1396-400	3.1	6	
50	Fabrication of protein a-viologen hetero Langmuir-Blodgett film for fluorescence immunoassay. <i>Biotechnology and Bioprocess Engineering</i> , <b>2004</b> , 9, 241-244	3.1	6	
49	Adenoviral p53 effects and cell-specific E7 protein-protein interactions of human cervical cancer cells. <i>Biosensors and Bioelectronics</i> , <b>2005</b> , 20, 2236-43	11.8	6	
48	Approximated solution of model for three-phase fluidized bed biofilm reactor in wastewater treatment. <i>Biotechnology and Bioprocess Engineering</i> , <b>2000</b> , 5, 65-70	3.1	6	
47	Biomemory device composed of mutant azurin thin films modified by site-directed mutagenesis. <i>Thin Solid Films</i> , <b>2009</b> , 518, 682-687	2.2	5	
46	Verification of surfactant CHAPS effect using AFM for making biomemory device consisting of recombinant azurin monolayer. <i>Ultramicroscopy</i> , <b>2010</b> , 110, 712-7	3.1	5	
45	Fabrication of Mouse Embryonic Stem Cell Chip Using Self-Assembled Layer of Cysteine-Modified RGD Oligopeptide. <i>Molecular Crystals and Liquid Crystals</i> , <b>2008</b> , 492, 184/[548]-191/[555]	0.5	5	
44	Effect of Joule Heat on the Performance of Organic Electroluminescence Device. <i>Molecular Crystals and Liquid Crystals</i> , <b>2001</b> , 371, 285-288		5	
43	Analysis of culture fluorescence by a fiber-optic sensor inNicotiana tabacum plant cell culture. <i>Korean Journal of Chemical Engineering</i> , <b>1995</b> , 12, 528-534	2.8	5	
42	Investigation of Hemoglobin/Gold Nanoparticle Heterolayer on Micro-Gap for Electrochemical Biosensor Application. <i>Sensors</i> , <b>2016</b> , 16,	3.8	5	
41	Azurin/CdSe-ZnS-Based Bio-Nano Hybrid Structure for Nanoscale Resistive Memory Device. <i>Materials</i> , <b>2017</b> , 10,	3.5	4	
40	Fabrication of fusion protein-based heterolayers composed of redox protein/myoglobin for bioelectronic device. <i>Biochip Journal</i> , <b>2016</b> , 10, 103-110	4	4	
39	Fusion protein-based biofilm fabrication composed of recombinant azurinfhyoglobin for dual-level biomemory application. <i>Applied Surface Science</i> , <b>2014</b> , 320, 448-454	6.7	4	

38	Mathematical model for a three-phase fluidized bed biofilm reactor in wastewater treatment. <i>Biotechnology and Bioprocess Engineering</i> , <b>1999</b> , 4, 51-58	3.1	4
37	Kinetic model for effects of ethanol and phosphate on cell growth and emulsan production inAcinetobacter calcoaceticus RAG-1. <i>Korean Journal of Chemical Engineering</i> , <b>1996</b> , 13, 266-274	2.8	4
36	DNA <b>L</b> old Nanoparticle Conjugates for Intracellular miRNA Detection Using Surface-Enhanced Raman Spectroscopy. <i>Biochip Journal</i> ,1	4	4
35	Bionanohybrid composed of metalloprotein/DNA/MoS/peptides to control the intracellular redox states of living cells and its applicability as a cell-based biomemory device. <i>Biosensors and Bioelectronics</i> , <b>2022</b> , 196, 113725	11.8	4
34	Fusion protein bilayer fabrication composed of recombinant azurin/cytochrome P450 by the sortase-mediated ligation method. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2014</b> , 120, 215-21	6	3
33	Electrically controlled delivery of cargo into single human neural stem cell. <i>ACS Applied Materials</i> & amp; Interfaces, 2014, 6, 20709-16	9.5	3
32	Nanoscale Fabrication of P. aeruginosa Azurin on Self-Assembled Monolayer. <i>Molecular Crystals and Liquid Crystals</i> , <b>2007</b> , 463, 281/[563]-289/[571]	0.5	3
31	Charge Distribution of Cytochrome c Monolayer Using Electrostatic Force Microscope. <i>Molecular Crystals and Liquid Crystals</i> , <b>2002</b> , 377, 253-256	0.5	3
30	Kinetic model for biotransformation of digitoxin in plant cell suspension culture of Digitalis lanata. <i>Biotechnology and Bioprocess Engineering</i> , <b>1999</b> , 4, 281-286	3.1	3
29	Fabrication of MERS-nanovesicle biosensor composed of multi-functional DNA aptamer/graphene-MoS nanocomposite based on electrochemical and surface-enhanced Raman spectroscopy. <i>Sensors and Actuators B: Chemical</i> , <b>2022</b> , 352, 131060	8.5	3
28	Multi-electrochemical signal generation using metalloprotein based on selective surface modification. <i>Biochip Journal</i> , <b>2017</b> , 11, 322-328	4	2
27	Detection of human serum albumin on protein array using scanning tunneling microscopy. <i>Ultramicroscopy</i> , <b>2010</b> , 110, 723-8	3.1	2
26	Rectified photocurrent of biophotodiode composed of cytochrome c/chlorophyll a heterostructure. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , <b>2008</b> , 313-314, 636-641	5.1	2
25	Modification of Functional Group on the Cytochrome c Using SPDP Method. <i>Molecular Crystals and Liquid Crystals</i> , <b>2001</b> , 371, 387-390		2
24	Optimal Fabrication Condition of Bacteriorhodopsin Thin Films Onto Modified Self-Assembled Monolayers. <i>Molecular Crystals and Liquid Crystals</i> , <b>2000</b> , 349, 303-306		2
23	Shift Register Memory Function of Molecular Photodiode Consisting of Flavin/Viologen/TCNQ Molecular Hetero-LB Films. <i>Molecular Crystals and Liquid Crystals</i> , <b>2001</b> , 371, 403-406		2
22	Bioreactor operating strategy inThalictrum rugosum plant cell culture for the production of berberine. <i>Biotechnology and Bioprocess Engineering</i> , <b>1999</b> , 4, 138-146	3.1	2
21	The Application of Cell Based Biosensor and Biochip for EnvironmentalMonitoring 2009, 261-273		2

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20	Biomolecular Electron Controller Composed of Nanobiohybrid with Electrically Released Complex for Spatiotemporal Control of Neuronal Differentiation <i>Small Methods</i> , <b>2022</b> , 6, e2100912	12.8	2
19	3D Neural Network Composed of Neurospheroid and Bionanohybrid on Microelectrode Array to Realize the Spatial Input Signal Recognition in Neurospheroid. <i>Small Methods</i> ,2200127	12.8	2
18	Metallic Nanoparticle-Based Optical Cell Chip for Nondestructive Monitoring of Intra/Extracellular Signals. <i>Pharmaceutics</i> , <b>2020</b> , 12,	6.4	1
17	Application of genetic algorithm to self-organizing fuzzy controller in fed-batch culture ofScutellaria baicalensis G. plant cell. <i>Korean Journal of Chemical Engineering</i> , <b>1998</b> , 15, 404-410	2.8	1
16	Fuzzy control of ethanol concentration for emulsan production in a fed-batch cultivation of Acinetobacter Calcoaceticus RAG-1. <i>Korean Journal of Chemical Engineering</i> , <b>1998</b> , 15, 310-316	2.8	1
15	Antibody Immobilization for Immunosensor on ProteinA Fabricated by Electrostatic Interaction of Synthetic Peptide. <i>Molecular Crystals and Liquid Crystals</i> , <b>2007</b> , 463, 245/[527]-254/[536]	0.5	1
14	Fabrication of Molecular Scale Photodiode using Phase Separation Technique. <i>Molecular Crystals and Liquid Crystals</i> , <b>2000</b> , 349, 319-322		1
13	Lateral Force Microscopy Investigation of Bacteriorhodopsin Adsorption onto Mixed Self-Assembled Monolayers. <i>Molecular Crystals and Liquid Crystals</i> , <b>2000</b> , 349, 307-310		1
12	Characterization and Optimization of Device Configuration Composed of Bacteriorhodopsin-Flavin Complex LB Films. <i>Molecular Crystals and Liquid Crystals</i> , <b>1999</b> , 327, 267-270		1
11	Fuzzy control systems for the regulation of substrate feeding rate in the fed-batch cultivation of Scutellaria baicalensis G <b>1999</b> ,		1
10	Fabrication of Cytochrome c Multi-Layers by Schaefer Technique. <i>Molecular Crystals and Liquid Crystals</i> , <b>2000</b> , 349, 187-190		0
9	Nanopatterned Surfaces for Stem-Cell Engineering <b>2015</b> , 97-122		
8	Chemical and Biosensors Based on Graphene Materials <b>2014</b> , 235-260		
7	Surface plasmon resonance immunosensor using self-assembled protein G for the detection of Salmonella paratyphi. <i>Journal of Biotechnology</i> , <b>2004</b> , 111, 1-1	3.7	
6	Photoelectric Response Characteristics of Molecular Photoreceptor Using Bacteriorhodopsin/Flavin Complex LB Films. <i>Molecular Crystals and Liquid Crystals</i> , <b>2000</b> , 349, 299-302		
5	Bioelectronic Device Consisting of Bacteriorhodopsin for Pattern Recognition. <i>Molecular Crystals and Liquid Crystals</i> , <b>2000</b> , 349, 311-314		
4	Effect of Polymer Layer Morphology by Thermal Treatment on I-V Characteristics of Electroluminescence Device. <i>Molecular Crystals and Liquid Crystals</i> , <b>2000</b> , 349, 463-466		
3	STM Analysis of Cytochrome c Adsorbed Hetero-LB Film using Bridging Molecules. <i>Molecular Crystals and Liquid Crystals</i> , <b>2001</b> , 370, 313-316		

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