

# Sang Jun Sim

## List of Publications by Citations

**Source:** <https://exaly.com/author-pdf/7681471/sang-jun-sim-publications-by-citations.pdf>

**Version:** 2024-04-26

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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

256  
papers

8,572  
citations

53  
h-index

79  
g-index

266  
ext. papers

9,879  
ext. citations

7.3  
avg, IF

6.6  
L-index

#	Paper	IF	Citations
256	Ecotoxicity of silver nanoparticles on the soil nematode <i>Caenorhabditis elegans</i> using functional ecotoxicogenomics. <i>Environmental Science &amp; Technology</i> , <b>2009</b> , 43, 3933-40	10.3	362
255	Enzymatic pretreatment of <i>Chlamydomonas reinhardtii</i> biomass for ethanol production. <i>Bioresource Technology</i> , <b>2010</b> , 101, 5330-6	11	291
254	Pretreatment of rice straw with ammonia and ionic liquid for lignocellulose conversion to fermentable sugars. <i>Bioresource Technology</i> , <b>2010</b> , 101, 7432-8	11	222
253	DNA-free two-gene knockout in <i>Chlamydomonas reinhardtii</i> via CRISPR-Cas9 ribonucleoproteins. <i>Scientific Reports</i> , <b>2016</b> , 6, 30620	4.9	188
252	PHA synthase activity controls the molecular weight and polydispersity of polyhydroxybutyrate in vivo. <i>Nature Biotechnology</i> , <b>1997</b> , 15, 63-7	44.5	172
251	Hydrogen production from <i>Chlamydomonas reinhardtii</i> biomass using a two-step conversion process: Anaerobic conversion and photosynthetic fermentation. <i>International Journal of Hydrogen Energy</i> , <b>2006</b> , 31, 812-816	6.7	156
250	Hydrothermal acid pretreatment of <i>Chlamydomonas reinhardtii</i> biomass for ethanol production. <i>Journal of Microbiology and Biotechnology</i> , <b>2009</b> , 19, 161-6	3.3	153
249	Hydrocarbon production from secondarily treated piggery wastewater by the green alga <i>Botryococcus braunii</i> . <i>Journal of Applied Phycology</i> , <b>2003</b> , 15, 185-191	3.2	148
248	Surface-initiated, atom transfer radical polymerization of oligo(ethylene glycol) methyl ether methacrylate and subsequent click chemistry for bioconjugation. <i>Biomacromolecules</i> , <b>2007</b> , 8, 744-9	6.9	126
247	Ultrasensitive carbon nanotube-based biosensors using antibody-binding fragments. <i>Analytical Biochemistry</i> , <b>2008</b> , 381, 193-8	3.1	124
246	A strategy for sensitivity and specificity enhancements in prostate specific antigen-alpha1-antichymotrypsin detection based on surface plasmon resonance. <i>Biosensors and Bioelectronics</i> , <b>2006</b> , 21, 2106-13	11.8	121
245	Comparison of heterotrophic and photoautotrophic induction on astaxanthin production by <i>Haematococcus pluvialis</i> . <i>Applied Microbiology and Biotechnology</i> , <b>2005</b> , 68, 237-41	5.7	115
244	Application of citrate-stabilized gold-coated ferric oxide composite nanoparticles for biological separations. <i>Journal of Magnetism and Magnetic Materials</i> , <b>2008</b> , 320, 2049-2055	2.8	109
243	Enhancement of sensitivity and specificity by surface modification of carbon nanotubes in diagnosis of prostate cancer based on carbon nanotube field effect transistors. <i>Biosensors and Bioelectronics</i> , <b>2009</b> , 24, 3372-8	11.8	106
242	Target-specific delivery of siRNA by stabilized calcium phosphate nanoparticles using dopa-hyaluronic acid conjugate. <i>Journal of Controlled Release</i> , <b>2014</b> , 192, 122-30	11.7	104
241	Thermostable cellulases: Current status and perspectives. <i>Bioresource Technology</i> , <b>2019</b> , 279, 385-392	11	103
240	Characterization of a self-assembled monolayer of thiol on a gold surface and the fabrication of a biosensor chip based on surface plasmon resonance for detecting anti-GAD antibody. <i>Biosensors and Bioelectronics</i> , <b>2005</b> , 20, 1422-7	11.8	102

239	Good things come in small packages: Overcoming challenges to harness extracellular vesicles for therapeutic delivery. <i>Journal of Controlled Release</i> , <b>2016</b> , 241, 174-185	11.7	91
238	Nanoplasmonic biosensor: detection and amplification of dual bio-signatures of circulating tumor DNA. <i>Biosensors and Bioelectronics</i> , <b>2015</b> , 67, 443-9	11.8	84
237	Signal enhancement of surface plasmon resonance immunoassay using enzyme precipitation-functionalized gold nanoparticles: a femto molar level measurement of anti-glutamic acid decarboxylase antibody. <i>Biosensors and Bioelectronics</i> , <b>2007</b> , 22, 1874-80	11.8	84
236	Quantitative and Specific Detection of Exosomal miRNAs for Accurate Diagnosis of Breast Cancer Using a Surface-Enhanced Raman Scattering Sensor Based on Plasmonic Head-Flocked Gold Nanopillars. <i>Small</i> , <b>2019</b> , 15, e1804968	11	83
235	Fermentative hydrogen production by the newly isolated <i>Enterobacter asburiae</i> SNU-1. <i>International Journal of Hydrogen Energy</i> , <b>2007</b> , 32, 192-199	6.7	81
234	Optical fiber SPR biosensor with sandwich assay for the detection of prostate specific antigen. <i>Optics Communications</i> , <b>2009</b> , 282, 2827-2830	2	80
233	Enhanced hydrogen production by controlling light intensity in sulfur-deprived <i>Chlamydomonas reinhardtii</i> culture. <i>International Journal of Hydrogen Energy</i> , <b>2006</b> , 31, 1585-1590	6.7	79
232	Direct extraction of astaxanthin from <i>Haematococcus</i> culture using vegetable oils. <i>Biotechnology Letters</i> , <b>2008</b> , 30, 441-4	3	77
231	High-yield biohydrogen production from biodiesel manufacturing waste by <i>Thermotoga neapolitana</i> . <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 5836-5842	6.7	76
230	Sensitive DNA biosensor based on a long-period grating formed on the side-polished fiber surface. <i>Optics Express</i> , <b>2009</b> , 17, 3855-60	3.3	76
229	Multilateral approach on enhancing economic viability of lipid production from microalgae: A review. <i>Bioresource Technology</i> , <b>2018</b> , 258, 335-344	11	75
228	Enhancement of fermentative hydrogen production from green algal biomass of <i>Thermotoga neapolitana</i> by various pretreatment methods. <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 13035-13040	6.7	75
227	Rational aspect ratio and suitable antibody coverage of gold nanorod for ultra-sensitive detection of a cancer biomarker. <i>Lab on A Chip</i> , <b>2012</b> , 12, 1102-9	7.2	74
226	Optimization of hydrogen production by hyperthermophilic eubacteria, <i>Thermotoga maritima</i> and <i>Thermotoga neapolitana</i> in batch fermentation. <i>International Journal of Hydrogen Energy</i> , <b>2008</b> , 33, 1483-1488	6.7	74
225	Effect of light conditions on mixotrophic cultivation of green microalgae. <i>Bioresource Technology</i> , <b>2019</b> , 282, 245-253	11	71
224	Hydrogen production of the hyperthermophilic eubacterium, <i>Thermotoga neapolitana</i> under N <sub>2</sub> sparging condition. <i>Bioresource Technology</i> , <b>2010</b> , 101 Suppl 1, S38-41	11	71
223	Production of hydrogen from marine macro-algae biomass using anaerobic sewage sludge microflora. <i>Biotechnology and Bioprocess Engineering</i> , <b>2009</b> , 14, 307-315	3.1	70
222	Targeted knockout of phospholipase A to increase lipid productivity in <i>Chlamydomonas reinhardtii</i> for biodiesel production. <i>Bioresource Technology</i> , <b>2019</b> , 271, 368-374	11	69

221	A shape-code nanoplasmonic biosensor for multiplex detection of Alzheimer's disease biomarkers. <i>Biosensors and Bioelectronics</i> , <b>2018</b> , 101, 96-102	11.8	68
220	Astaxanthin biosynthesis from simultaneous N and P uptake by the green alga <i>Haematococcus pluvialis</i> in primary-treated wastewater. <i>Biochemical Engineering Journal</i> , <b>2006</b> , 31, 234-238	4.2	68
219	Enhanced autotrophic astaxanthin production from <i>Haematococcus pluvialis</i> under high temperature via heat stress-driven Haber-Weiss reaction. <i>Applied Microbiology and Biotechnology</i> , <b>2015</b> , 99, 5203-15	5.7	66
218	A new method for non-labeling attomolar detection of diseases based on an individual gold nanorod immunosensor. <i>Lab on A Chip</i> , <b>2011</b> , 11, 2591-7	7.2	66
217	A nanoplasmonic biosensor for label-free multiplex detection of cancer biomarkers. <i>Biosensors and Bioelectronics</i> , <b>2015</b> , 74, 341-6	11.8	65
216	A Direct, Multiplex Biosensor Platform for Pathogen Detection Based on Cross-linked Polydiacetylene (PDA) Supramolecules. <i>Advanced Functional Materials</i> , <b>2009</b> , 19, 3703-3710	15.6	61
215	High cell density culture of <i>Anabaena variabilis</i> using repeated injections of carbon dioxide for the production of hydrogen. <i>International Journal of Hydrogen Energy</i> , <b>2002</b> , 27, 1265-1270	6.7	60
214	Thermophilic hydrogen fermentation from Korean rice straw by <i>Thermotoga neapolitana</i> . <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 13392-13398	6.7	59
213	Emerging prospects of mixotrophic microalgae: Way forward to sustainable bioprocess for environmental remediation and cost-effective biofuels. <i>Bioresource Technology</i> , <b>2020</b> , 300, 122741	11	59
212	Controlled wavelength reduction in surface wrinkling of poly(dimethylsiloxane). <i>Soft Matter</i> , <b>2010</b> , 6, 677-684	3.6	58
211	Development of large-scale and economic pH control system for outdoor cultivation of microalgae <i>Haematococcus pluvialis</i> using industrial flue gas. <i>Bioresource Technology</i> , <b>2017</b> , 244, 1235-1244	11	57
210	Photosynthetic conversion of CO <sub>2</sub> to farnesyl diphosphate-derived phytochemicals (amorpho-4,11-diene and squalene) by engineered cyanobacteria. <i>Biotechnology for Biofuels</i> , <b>2016</b> , 9, 202	7.8	57
209	Production and secretion of indole alkaloids in hairy root cultures of <i>Catharanthus roseus</i> : Effects of in situ adsorption, fungal elicitation and permeabilization. <i>Journal of Bioscience and Bioengineering</i> , <b>1994</b> , 78, 229-234		56
208	Photoautotrophic production of macular pigment in a <i>Chlamydomonas reinhardtii</i> strain generated by using DNA-free CRISPR-Cas9 RNP-mediated mutagenesis. <i>Biotechnology and Bioengineering</i> , <b>2018</b> , 115, 719-728	4.9	56
207	Aptamer biosensor for label-free detection of human immunoglobulin E based on surface plasmon resonance. <i>Sensors and Actuators B: Chemical</i> , <b>2009</b> , 139, 471-475	8.5	55
206	Complementary limiting factors of astaxanthin synthesis during photoautotrophic induction of <i>Haematococcus pluvialis</i> : C/N ratio and light intensity. <i>Applied Microbiology and Biotechnology</i> , <b>2007</b> , 74, 987-94	5.7	55
205	Enhanced performance of a surface plasmon resonance immunosensor for detecting Ab-GAD antibody based on the modified self-assembled monolayers. <i>Biosensors and Bioelectronics</i> , <b>2005</b> , 21, 378-83	11.8	55
204	Enhanced astaxanthin production from microalga, <i>Haematococcus pluvialis</i> by two-stage perfusion culture with stepwise light irradiation. <i>Bioprocess and Biosystems Engineering</i> , <b>2014</b> , 37, 2039-47	3.7	53

203	Engineering of a modular and synthetic phosphoketolase pathway for photosynthetic production of acetone from CO <sub>2</sub> in <i>Synechococcus elongatus</i> PCC 7942 under light and aerobic condition. <i>Plant Biotechnology Journal</i> , <b>2016</b> , 14, 1768-76	11.6	53
202	High-efficiency cell disruption and astaxanthin recovery from <i>Haematococcus pluvialis</i> cyst cells using room-temperature imidazolium-based ionic liquid/water mixtures. <i>Bioresource Technology</i> , <b>2019</b> , 274, 120-126	11	53
201	Performance and potential appraisal of various microalgae as direct combustion fuel. <i>Bioresource Technology</i> , <b>2019</b> , 273, 341-349	11	53
200	Hydrogen production by the hyperthermophilic eubacterium, <i>Thermotoga neapolitana</i> , using cellulose pretreated by ionic liquid. <i>International Journal of Hydrogen Energy</i> , <b>2008</b> , 33, 5161-5168	6.7	52
199	Evaluation of conversion efficiency of light to hydrogen energy by <i>Anabaena variabilis</i> . <i>International Journal of Hydrogen Energy</i> , <b>2006</b> , 31, 721-727	6.7	51
198	Resonant Rayleigh light scattering of single Au nanoparticles with different sizes and shapes. <i>Nanoscale</i> , <b>2014</b> , 6, 2307-15	7.7	49
197	Synergistic effect of multiple stress conditions for improving microalgal lipid production. <i>Algal Research</i> , <b>2016</b> , 19, 215-224	5	48
196	Multiplex diagnosis of viral infectious diseases (AIDS, hepatitis C, and hepatitis A) based on point of care lateral flow assay using engineered proteinticles. <i>Biosensors and Bioelectronics</i> , <b>2015</b> , 69, 213-25	11.8	47
195	Microfluidic high-throughput selection of microalgal strains with superior photosynthetic productivity using competitive phototaxis. <i>Scientific Reports</i> , <b>2016</b> , 6, 21155	4.9	47
194	Resonant Rayleigh light scattering response of individual Au nanoparticles to antigen-antibody interaction. <i>Lab on A Chip</i> , <b>2009</b> , 9, 1836-9	7.2	47
193	The Development of a Generic Bioanalytical Matrix Using Polydiacetylenes. <i>Advanced Functional Materials</i> , <b>2007</b> , 17, 2038-2044	15.6	45
192	Microalgae Bioenergy with Carbon Capture and Storage (BECCS): An emerging sustainable bioprocess for reduced CO <sub>2</sub> emission and biofuel production. <i>Bioresource Technology Reports</i> , <b>2019</b> , 7, 100270	4.1	44
191	Development of SyneBrick Vectors As a Synthetic Biology Platform for Gene Expression in PCC 7942. <i>Frontiers in Plant Science</i> , <b>2017</b> , 8, 293	6.2	44
190	Label-free detection of ApoE4-mediated Amyloid aggregation on single nanoparticle uncovering Alzheimer's disease. <i>Biosensors and Bioelectronics</i> , <b>2015</b> , 72, 197-204	11.8	43
189	Homogenous growth of gold nanocrystals for quantification of PSA protein biomarker. <i>Biosensors and Bioelectronics</i> , <b>2009</b> , 24, 1292-7	11.8	43
188	Acidic cultivation of <i>Haematococcus pluvialis</i> for improved astaxanthin production in the presence of a lethal fungus. <i>Bioresource Technology</i> , <b>2019</b> , 278, 138-144	11	42
187	A label-free, ultra-highly sensitive and multiplexed SERS nanoplasmonic biosensor for miRNA detection using a head-flocked gold nanopillar. <i>Analyst, The</i> , <b>2019</b> , 144, 1768-1776	5	42
186	Effect of red cyst cell inoculation and iron(II) supplementation on autotrophic astaxanthin production by <i>Haematococcus pluvialis</i> under outdoor summer conditions. <i>Journal of Biotechnology</i> , <b>2016</b> , 218, 25-33	3.7	42

185	Eco-toxicity of commercial silver nanopowders to bacterial and yeast strains. <i>Biotechnology and Bioprocess Engineering</i> , <b>2009</b> , 14, 490-495	3.1	42
184	Increased shikonin production by hairy roots of <i>Lithospermum erythrorhizon</i> in two phase bubble column reactor. <i>Biotechnology Letters</i> , <b>1993</b> , 15, 145-150	3	40
183	Gold nanocrystals with DNA-directed morphologies. <i>Nature Communications</i> , <b>2016</b> , 7, 12873	17.4	39
182	Low-blinking SERS substrate for switchable detection of kanamycin. <i>Sensors and Actuators B: Chemical</i> , <b>2019</b> , 282, 765-773	8.5	39
181	Improvement of Squalene Production from CO in <i>Synechococcus elongatus</i> PCC 7942 by Metabolic Engineering and Scalable Production in a Photobioreactor. <i>ACS Synthetic Biology</i> , <b>2017</b> , 6, 1289-1295	5.7	38
180	Fabrication of plasmon length-based surface enhanced Raman scattering for multiplex detection on microfluidic device. <i>Biosensors and Bioelectronics</i> , <b>2015</b> , 70, 358-65	11.8	38
179	Single gold nanoplasmonic sensor for clinical cancer diagnosis based on specific interaction between nucleic acids and protein. <i>Biosensors and Bioelectronics</i> , <b>2015</b> , 67, 59-65	11.8	38
178	Development of an X-Shape airlift photobioreactor for increasing algal biomass and biodiesel production. <i>Bioresource Technology</i> , <b>2017</b> , 239, 211-218	11	37
177	Performance enhancement of real-time detection of protozoan parasite, <i>Cryptosporidium oocyst</i> by a modified surface plasmon resonance (SPR) biosensor. <i>Enzyme and Microbial Technology</i> , <b>2006</b> , 39, 387-390	3.8	37
176	Single gold-bridged nanoprobe for identification of single point DNA mutations. <i>Nature Communications</i> , <b>2019</b> , 10, 836	17.4	36
175	Fed-batch culture of astaxanthin-rich <i>Haematococcus pluvialis</i> by exponential nutrient feeding and stepwise light supplementation. <i>Bioprocess and Biosystems Engineering</i> , <b>2010</b> , 33, 133-9	3.7	34
174	A multisized piezoelectric microcantilever biosensor array for the quantitative analysis of mass and surface stress. <i>Applied Physics Letters</i> , <b>2008</b> , 93, 102902	3.4	34
173	Succinate production from CO <sub>2</sub> -grown microalgal biomass as carbon source using engineered <i>Corynebacterium glutamicum</i> through consolidated bioprocessing. <i>Scientific Reports</i> , <b>2014</b> , 4, 5819	4.9	33
172	Heterologous production of epothilones B and D in <i>Streptomyces venezuelae</i> . <i>Applied Microbiology and Biotechnology</i> , <b>2008</b> , 81, 109-17	5.7	33
171	Direct Conversion of CO to Farnesene Using Metabolically Engineered <i>Synechococcus elongatus</i> PCC 7942. <i>Journal of Agricultural and Food Chemistry</i> , <b>2017</b> , 65, 10424-10428	5.7	32
170	Seedless synthesis of octahedral gold nanoparticles in condensed surfactant phase. <i>Journal of Colloid and Interface Science</i> , <b>2008</b> , 322, 152-7	9.3	31
169	Rapid selection of astaxanthin-hyperproducing <i>Haematococcus</i> mutant via azide-based colorimetric assay combined with oil-based astaxanthin extraction. <i>Bioresource Technology</i> , <b>2018</b> , 267, 175-181	11	30
168	A novel bioassay platform using ferritin-based nanoprobe hydrogel. <i>Advanced Materials</i> , <b>2012</b> , 24, 4739-44, 4730	24	30

167	Improvement in modular scalability of polymeric thin-film photobioreactor for autotrophic culturing of <i>Haematococcus pluvialis</i> using industrial flue gas. <i>Bioresource Technology</i> , <b>2018</b> , 249, 519-526 <sup>11</sup>	30
166	A sustainable mixotrophic microalgae cultivation from dairy wastes for carbon credit, bioremediation and lucrative biofuels. <i>Bioresource Technology</i> , <b>2020</b> , 313, 123681	11 29
165	Optimal design of scalable photo-bioreactor for phototropic culturing of <i>Haematococcus pluvialis</i> . <i>Bioprocess and Biosystems Engineering</i> , <b>2012</b> , 35, 309-15	3.7 29
164	Development of SERS substrate using phage-based magnetic template for triplex assay in sepsis diagnosis. <i>Biosensors and Bioelectronics</i> , <b>2016</b> , 85, 522-528	11.8 29
163	Selective Extraction of Free Astaxanthin from <i>Haematococcus</i> Culture Using a Tandem Organic Solvent System. <i>Biotechnology Progress</i> , <b>2007</b> , 23, 866-871	2.8 28
162	Photosynthetic CO Conversion to Fatty Acid Ethyl Esters (FAEEs) Using Engineered Cyanobacteria. <i>Journal of Agricultural and Food Chemistry</i> , <b>2017</b> , 65, 1087-1092	5.7 27
161	A Nanoplasmonic Biosensor for Ultrasensitive Detection of Alzheimer's Disease Biomarker Using a Chaotropic Agent. <i>ACS Sensors</i> , <b>2019</b> , 4, 595-602	9.2 27
160	Detection of pathogen based on the catalytic growth of gold nanocrystals. <i>Water Research</i> , <b>2009</b> , 43, 1425-31	12.5 27
159	Production of Hydrogen from Glucose as a Biomass Simulant: Integrated Biological and Thermochemical Approach. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2008</b> , 47, 3645-3651	3.9 27
158	Microalgal-Based Carbon Sequestration by Converting LNG-Fired Waste CO <sub>2</sub> into Red Gold Astaxanthin: The Potential Applicability. <i>Energies</i> , <b>2019</b> , 12, 1718	3.1 26
157	Split mixotrophy: A novel cultivation strategy to enhance the mixotrophic biomass and lipid yields of <i>Chlorella protothecoides</i> . <i>Bioresource Technology</i> , <b>2019</b> , 291, 121820	11 26
156	Development of thin-film photo-bioreactor and its application to outdoor culture of microalgae. <i>Bioprocess and Biosystems Engineering</i> , <b>2013</b> , 36, 729-36	3.7 26
155	Magnetophoretic sorting of microdroplets with different microalgal cell densities for rapid isolation of fast growing strains. <i>Scientific Reports</i> , <b>2017</b> , 7, 10390	4.9 26
154	Signal amplification by magnetic force on polydiacetylene supramolecules for detection of prostate cancer. <i>Small</i> , <b>2012</b> , 8, 209-13	11 26
153	Repeated production of hydrogen by sulfate re-addition in sulfur deprived culture of <i>Chlamydomonas reinhardtii</i> . <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 13387-13391	6.7 26
152	Microdroplet photobioreactor for the photoautotrophic culture of microalgal cells. <i>Analyst</i> , <b>2016</b> , 141, 989-98	5 25
151	Integrated microfluidic platform for multiple processes from microalgal culture to lipid extraction. <i>Analytical Chemistry</i> , <b>2014</b> , 86, 8585-92	7.8 25
150	Rheology and gelation of water-insoluble dextran from <i>Leuconostoc mesenteroides</i> NRRL B-523. <i>Carbohydrate Polymers</i> , <b>2003</b> , 53, 459-468	10.3 25

149	Recent advancements in mixotrophic bioprocessing for production of high value microalgal products. <i>Bioresource Technology</i> , <b>2021</b> , 320, 124421	11	25
148	Gold-based optical biosensor for single-mismatched DNA detection using salt-induced hybridization. <i>Biosensors and Bioelectronics</i> , <b>2012</b> , 32, 127-32	11.8	24
147	Astaxanthin production by a highly photosensitive Haematococcus mutant. <i>Process Biochemistry</i> , <b>2012</b> , 47, 1972-1979	4.8	24
146	Preparation and Properties of PHEA/Chitosan Composite Hydrogel. <i>Polymer Journal</i> , <b>2004</b> , 36, 943-948	2.7	24
145	Signal enhancement of a micro-arrayed polydiacetylene (PDA) biosensor using gold nanoparticles. <i>Analyst, The</i> , <b>2012</b> , 137, 1241-6	5	23
144	Size-dependent plasmonic responses of single gold nanoparticles for analysis of biorecognition. <i>Analytical Biochemistry</i> , <b>2012</b> , 421, 213-8	3.1	23
143	Enhancement of sensitivity using hybrid stimulus for the diagnosis of prostate cancer based on polydiacetylene (PDA) supramolecules. <i>Biosensors and Bioelectronics</i> , <b>2010</b> , 26, 1548-53	11.8	22
142	Transcriptome landscape of <i>Synechococcus elongatus</i> PCC 7942 for nitrogen starvation responses using RNA-seq. <i>Scientific Reports</i> , <b>2016</b> , 6, 30584	4.9	22
141	Enhanced biodiesel production in <i>Neochloris oleoabundans</i> by a semi-continuous process in two stage photobioreactors. <i>Bioprocess and Biosystems Engineering</i> , <b>2015</b> , 38, 1415-21	3.7	21
140	Gold nanostar based biosensor detects epigenetic alterations on promoter of real cells. <i>Biosensors and Bioelectronics</i> , <b>2015</b> , 66, 497-503	11.8	21
139	Enhancing lipid productivity by modulating lipid catabolism using the CRISPR-Cas9 system in <i>Chlamydomonas</i> . <i>Journal of Applied Phycology</i> , <b>2020</b> , 32, 2829-2840	3.2	21
138	Fabrication and testing of a PDMS multi-stacked hand-operated LOC for use in portable immunosensing systems. <i>Biomedical Microdevices</i> , <b>2008</b> , 10, 859-868	3.7	21
137	Harnessing fruit waste for poly-3-hydroxybutyrate production: A review. <i>Bioresource Technology</i> , <b>2021</b> , 326, 124734	11	21
136	Quantitative analysis of the chemotaxis of a green alga, <i>Chlamydomonas reinhardtii</i> , to bicarbonate using diffusion-based microfluidic device. <i>Biomicrofluidics</i> , <b>2016</b> , 10, 014121	3.2	21
135	Vertically encoded tetragonal hydrogel microparticles for multiplexed detection of miRNAs associated with Alzheimer's disease. <i>Analyst, The</i> , <b>2016</b> , 141, 4578-86	5	20
134	Dark fermentation of hydrogen from waste glycerol using hyperthermophilic eubacterium <i>Thermotoga neapolitana</i> . <i>Environmental Progress and Sustainable Energy</i> , <b>2012</b> , 31, 466-473	2.5	20
133	Introducing <i>Dunaliella</i> LIP promoter containing light-inducible motifs improves transgenic expression in <i>Chlamydomonas reinhardtii</i> . <i>Biotechnology Journal</i> , <b>2016</b> , 11, 384-92	5.6	20
132	Comprehensive approach to improving life-cycle CO reduction efficiency of microalgal biorefineries: A review. <i>Bioresource Technology</i> , <b>2019</b> , 291, 121879	11	19



131	Signal enhancement strategy for a micro-arrayed polydiacetylene (PDA) immunosensor using enzyme-catalyzed precipitation. <i>Biosensors and Bioelectronics</i> , <b>2014</b> , 61, 314-20	11.8	19
130	Surface plasmon resonance-based inhibition assay for real-time detection of <i>Cryptosporidium parvum</i> oocyst. <i>Water Research</i> , <b>2008</b> , 42, 1693-9	12.5	19
129	Enhanced carbon dioxide fixation of <i>Haematococcus pluvialis</i> using sequential operating system in tubular photobioreactors. <i>Process Biochemistry</i> , <b>2015</b> , 50, 1091-1096	4.8	18
128	A self-generated and degradation-resistive cratered stainless steel electrocatalyst for efficient water oxidation in a neutral electrolyte. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 19210-19219	13	18
127	Functional fusion mutant of <i>Candida antarctica</i> lipase B (CalB) expressed in <i>Escherichia coli</i> . <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , <b>2009</b> , 1794, 519-25	4	18
126	Enhanced biomass and lipid production of <i>Neochloris oleoabundans</i> under high light conditions by anisotropic nature of light-splitting CaCO crystal. <i>Bioresource Technology</i> , <b>2019</b> , 287, 121483	11	17
125	Amplification of resonant Rayleigh light scattering response using immunogold colloids for detection of lysozyme. <i>Small</i> , <b>2013</b> , 9, 3485-92	11	17
124	Mechanosensitive physiology of <i>Chlamydomonas reinhardtii</i> under direct membrane distortion. <i>Scientific Reports</i> , <b>2014</b> , 4, 4675	4.9	17
123	One-Pot, Simultaneous Cell Wall Disruption and Complete Extraction of Astaxanthin from <i>Haematococcus pluvialis</i> at Room Temperature. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2019</b> , 7, 13898-13910	8.3	16
122	Sustainable production of polyhydroxybutyrate from autotrophs using CO as feedstock: Challenges and opportunities. <i>Bioresource Technology</i> , <b>2021</b> , 341, 125751	11	16
121	Design and applications of photobioreactors- A review.. <i>Bioresource Technology</i> , <b>2022</b> , 126858	11	16
120	Overexpression of malic enzyme isoform 2 in <i>Chlamydomonas reinhardtii</i> PTS42 increases lipid production. <i>Bioresource Technology Reports</i> , <b>2019</b> , 7, 100239	4.1	15
119	Morphological Change and Cell Disruption of <i>Haematococcus pluvialis</i> Cyst during High-Pressure Homogenization for Astaxanthin Recovery. <i>Applied Sciences (Switzerland)</i> , <b>2020</b> , 10, 513	2.6	15
118	Metabolic rewiring of synthetic pyruvate dehydrogenase bypasses for acetone production in cyanobacteria. <i>Plant Biotechnology Journal</i> , <b>2020</b> , 18, 1860-1868	11.6	15
117	Real-time, sensitive, and specific detection of promoter-polymerase interactions in gene transcription using a nanoplasmonic sensor. <i>Advanced Materials</i> , <b>2013</b> , 25, 1265-9	24	15
116	Thermophilic hydrogen fermentation using <i>Thermotoga neapolitana</i> DSM 4359 by fed-batch culture. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 14014-14023	6.7	15
115	Effect of air distributor on the fluidization characteristics in conical gas fluidized beds. <i>Korean Journal of Chemical Engineering</i> , <b>2005</b> , 22, 315-320	2.8	15
114	A fluorogenic molecular nanoprobe with an engineered internal environment for sensitive and selective detection of biological hydrogen sulfide. <i>Chemical Communications</i> , <b>2017</b> , 53, 2275-2278	5.8	14

113	Sedimentation rate-based screening of oleaginous microalgae for utilization as a direct combustion fuel. <i>Bioresource Technology</i> , <b>2019</b> , 293, 122045	11	14
112	Phase controllable transfer printing of patterned polyelectrolyte multilayers. <i>Langmuir</i> , <b>2009</b> , 25, 2575-81		14
111	Quantitative detection of DNA by autocatalytic enlargement of hybridized gold nanoprobe. <i>Biosensors and Bioelectronics</i> , <b>2010</b> , 26, 511-6	11.8	14
110	Increased poly- $\gamma$ -hydroxybutyrate (PHB) chain length by the modulation of PHA synthase activity in recombinant <i>Escherichia coli</i> . <i>Biotechnology Letters</i> , <b>2001</b> , 23, 2057-2061	3	14
109	Microfluidic neural axon diode <b>2016</b> , 04, 240-248		14
108	Cancer Diagnostics: Quantitative and Specific Detection of Exosomal miRNAs for Accurate Diagnosis of Breast Cancer Using a Surface-Enhanced Raman Scattering Sensor Based on Plasmonic Head-Flocked Gold Nanopillars (Small 17/2019). <i>Small</i> , <b>2019</b> , 15, 1970091	11	13
107	Autotrophic Biodiesel Production from the Thermotolerant Microalga <i>Chlorella sorokiniana</i> by Enhancing the Carbon Availability with Temperature Adjustment. <i>Biotechnology and Bioprocess Engineering</i> , <b>2019</b> , 24, 223-231	3.1	13
106	Multiplex microfluidic system integrating sequential operations of microalgal lipid production. <i>Analyst, The</i> , <b>2016</b> , 141, 1218-25	5	13
105	Shear stress effect on transfection of neurons cultured in microfluidic devices. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2009</b> , 9, 7330-5	1.3	13
104	Electrochemical analysis of gold-coated magnetic nanoparticles for detecting immunological interaction. <i>Journal of Nanoparticle Research</i> , <b>2010</b> , 12, 227-235	2.3	13
103	Enhancement of the sensitivity of surface plasmon resonance (SPR) immunosensor for the detection of anti-GAD antibody by changing the pH for streptavidin immobilization. <i>Enzyme and Microbial Technology</i> , <b>2004</b> , 35, 683-687	3.8	13
102	Enhancement of growth and paramylon production of <i>Euglena gracilis</i> by co-cultivation with <i>Pseudoalteromonas</i> sp. MEBiC 03485. <i>Bioresource Technology</i> , <b>2019</b> , 288, 121513	11	12
101	Improvement of hydrocarbon recovery by spouting solvent into culture of <i>Botryococcus braunii</i> . <i>Bioprocess and Biosystems Engineering</i> , <b>2013</b> , 36, 1977-85	3.7	12
100	Transcriptomic analysis of <i>Corynebacterium glutamicum</i> in the response to the toxicity of furfural present in lignocellulosic hydrolysates. <i>Process Biochemistry</i> , <b>2015</b> , 50, 347-356	4.8	12
99	Extractive plant cell culture. <i>Current Opinion in Biotechnology</i> , <b>1995</b> , 6, 209-212	11.4	12
98	Real-time monitoring of distinct binding kinetics of hot-spot mutant p53 protein in human cancer cells using an individual nanorod-based plasmonic biosensor. <i>Sensors and Actuators B: Chemical</i> , <b>2020</b> , 322, 128584	8.5	12
97	The hazardous threat of Bisphenol A: Toxicity, detection and remediation. <i>Journal of Hazardous Materials</i> , <b>2022</b> , 423, 127097	12.8	12
96	Non-labeled detection of waterborne pathogen <i>Cryptosporidium parvum</i> using a polydiacetylene-based fluorescence chip. <i>Biotechnology Journal</i> , <b>2008</b> , 3, 687-93	5.6	11

95	SERS-based Nanoplasmonic Exosome Analysis: Enabling Liquid Biopsy for Cancer Diagnosis and Monitoring Progression. <i>Biochip Journal</i> , <b>2020</b> , 14, 231-241	4	11
94	Improved CO-derived polyhydroxybutyrate (PHB) production by engineering fast-growing cyanobacterium <i>Synechococcus elongatus</i> UTEX 2973 for potential utilization of flue gas. <i>Bioresource Technology</i> , <b>2021</b> , 327, 124789	11	11
93	Robust cyst germination induction in <i>Haematococcus pluvialis</i> to enhance astaxanthin productivity in a semi-continuous outdoor culture system using power plant flue gas. <i>Bioresource Technology</i> , <b>2021</b> , 338, 125533	11	11
92	Mixotrophic biorefinery: A promising algal platform for sustainable biofuels and high value coproducts. <i>Renewable and Sustainable Energy Reviews</i> , <b>2021</b> , 152, 111669	16.2	11
91	Extreme furfural tolerance of a soil bacterium <i>Enterobacter cloacae</i> GGT036. <i>Journal of Biotechnology</i> , <b>2015</b> , 193, 11-3	3.7	10
90	A Microreactor System for Cultivation of <i>Haematococcus pluvialis</i> and Astaxanthin Production. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2015</b> , 15, 1618-23	1.3	10
89	Selective antigen-antibody recognition on SPR sensor based on the heat-sensitive conformational change of poly(N-isopropylacrylamide). <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , <b>2008</b> , 313-314, 504-508	5.1	10
88	Preparation of Highly Stable Oligo(ethylene glycol) Derivatives-Functionalized Gold Nanoparticles and Their Application in LSPR-Based Detection of PSA/ACT Complex. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2007</b> , 7, 3754-3757	1.3	10
87	Shikonin production by extractive cultivation in transformed-suspension and hairy root cultures of <i>Lithospermum erythrorhizon</i> . <i>Annals of the New York Academy of Sciences</i> , <b>1994</b> , 745, 442-54	6.5	10
86	Process development for the removal of copper from wastewater using ferric/limestone treatment. <i>Korean Journal of Chemical Engineering</i> , <b>2003</b> , 20, 482-486	2.8	10
85	Selective production of epothilone B by heterologous expression of propionyl-CoA synthetase in <i>Sorangium cellulosum</i> . <i>Journal of Microbiology and Biotechnology</i> , <b>2008</b> , 18, 135-7	3.3	10
84	PDMS microchannel surface modification with teflon for algal lipid research. <i>Biochip Journal</i> , <b>2017</b> , 11, 180-186	4	9
83	Enhanced astaxanthin extraction efficiency from <i>Haematococcus pluvialis</i> via the cyst germination in outdoor culture systems. <i>Process Biochemistry</i> , <b>2015</b> , 50, 2275-2280	4.8	9
82	The strategy of signal amplification for ultrasensitive detection of hIgE based on aptamer-modified poly(di-acetylene) supramolecules. <i>Biosensors and Bioelectronics</i> , <b>2011</b> , 26, 4823-7	11.8	9
81	Synthesis and polymerization of methacryloyl-PEG-sulfonic acid as a functional macromer for biocompatible polymeric surfaces. <i>Macromolecular Research</i> , <b>2004</b> , 12, 379-383	1.9	9
80	Outdoor cultivation of microalgae in a coal-fired power plant for conversion of flue gas CO <sub>2</sub> into microalgal direct combustion fuels. <i>Systems Microbiology and Biomanufacturing</i> , <b>2021</b> , 1, 90-99		9
79	Double-enhancement strategy: A practical approach to a femto-molar level detection of prostate specific antigen-alpha1-antichymotrypsin (PSA/ACT complex) for SPR immunosensing. <i>Journal of Microbiology and Biotechnology</i> , <b>2007</b> , 17, 1031-5	3.3	9
78	Repeated-batch production of omega-3 enriched biomass of <i>Chlorella sorokiniana</i> via calcium-induced homeoviscous adaptation. <i>Bioresource Technology</i> , <b>2020</b> , 303, 122944	11	8

77	Plasmonic coupling-dependent SERS of gold nanoparticles anchored on methylated DNA and detection of global DNA methylation in SERS-based platforms. <i>Journal of Optics (United Kingdom)</i> , <b>2015</b> , 17, 114022	1.7	8
76	Ultrasensitive detection of the reduced form of nicotinamide adenine dinucleotide based on carbon nanotube field effect transistor. <i>Analyst, The</i> , <b>2012</b> , 137, 3328-34	5	8
75	Apta-biosensors for nonlabeled real time detection of human IgE based on carbon nanotube field effect transistors. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2011</b> , 11, 4182-7	1.3	8
74	Rigiflex lithography-based nanodot arrays for localized surface plasmon resonance biosensors. <i>Langmuir</i> , <b>2010</b> , 26, 6119-26	4	8
73	Improvement of epothilone B production by in situ removal of ammonium using cation exchange resin in <i>Sorangium cellulosum</i> culture. <i>Biochemical Engineering Journal</i> , <b>2007</b> , 37, 328-331	4.2	8
72	Enhanced stability of heterologous proteins by supramolecular self-assembly. <i>Applied Microbiology and Biotechnology</i> , <b>2007</b> , 75, 347-55	5.7	8
71	Drying characteristics of particles using thermogravimetric analyzer. <i>Korean Journal of Chemical Engineering</i> , <b>2003</b> , 20, 1170-1175	2.8	8
70	Engineering interventions in enzyme production: Lab to industrial scale. <i>Bioresource Technology</i> , <b>2021</b> , 326, 124771	11	8
69	Polymeric Nanocomplex Encapsulating Iron Oxide Nanoparticles in Constant Size for Controllable Magnetic Field Reactivity. <i>Langmuir</i> , <b>2018</b> , 34, 12827-12833	4	8
68	Adsorptive removal of harmful algal species <i>Microcystis aeruginosa</i> directly from aqueous solution using polyethylenimine coated polysulfone-biomass composite fiber. <i>Biodegradation</i> , <b>2018</b> , 29, 349-358	4.1	8
67	Enhanced biomass production through a repeated sequential auto-and heterotrophic culture mode in <i>Chlorella protothecoides</i> . <i>Bioresource Technology</i> , <b>2021</b> , 338, 125532	11	8
66	A Whole-Cell Surface Plasmon Resonance Sensor Based on a Leucine Auxotroph of <i>Escherichia coli</i> Displaying a Gold-Binding Protein: Usefulness for Diagnosis of Maple Syrup Urine Disease. <i>Analytical Chemistry</i> , <b>2016</b> , 88, 2871-6	7.8	7
65	Screening of oleaginous algal strains from <i>Chlamydomonas reinhardtii</i> mutant libraries via density gradient centrifugation. <i>Biotechnology and Bioengineering</i> , <b>2019</b> , 116, 3179-3188	4.9	7
64	Capture and culturing of single microalgae cells, and retrieval of colonies using a perforated hemispherical microwell structure. <i>RSC Advances</i> , <b>2014</b> , 4, 61298-61304	3.7	7
63	Effects of L-arginine on refolding of lysine-tagged human insulin-like growth factor 1 expressed in <i>Escherichia coli</i> . <i>Bioprocess and Biosystems Engineering</i> , <b>2012</b> , 35, 255-63	3.7	7
62	Femtomolar detection of single mismatches by discriminant analysis of DNA hybridization events using gold nanoparticles. <i>Analyst, The</i> , <b>2013</b> , 138, 1794-802	5	7
61	A strategy for the ultrasensitive detection of cancer biomarkers based on the LSPR response of a single AuNP. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2011</b> , 11, 5651-6	1.3	7
60	Selective extraction of free astaxanthin from <i>Haematococcus</i> culture using a tandem organic solvent system. <i>Biotechnology Progress</i> , <b>2007</b> , 23, 866-71	2.8	7

59	Mass cultivation and harvesting of microalgal biomass: Current trends and future perspectives. <i>Bioresource Technology</i> , <b>2022</b> , 344, 126406	11	7
58	Scalable Cultivation of Engineered Cyanobacteria for Squalene Production from Industrial Flue Gas in a Closed Photobioreactor. <i>Journal of Agricultural and Food Chemistry</i> , <b>2020</b> , 68, 10050-10055	5.7	7
57	Algal glycobioengineering: omics approaches for strain improvement. <i>Microbial Cell Factories</i> , <b>2021</b> , 20, 163	6.4	7
56	Three-dimensional hierarchical plasmonic nano-architecture based label-free surface-enhanced Raman spectroscopy detection of urinary exosomal miRNA for clinical diagnosis of prostate cancer.. <i>Biosensors and Bioelectronics</i> , <b>2022</b> , 205, 114116	11.8	7
55	A microscale approach for simple and rapid monitoring of cell growth and lipid accumulation in <i>Neochloris oleoabundans</i> . <i>Bioprocess and Biosystems Engineering</i> , <b>2015</b> , 38, 2035-43	3.7	6
54	Autotrophic hydrogen photoproduction by operation of carbon-concentrating mechanism in <i>Chlamydomonas reinhardtii</i> under sulfur deprivation condition. <i>Journal of Biotechnology</i> , <b>2016</b> , 221, 55-61	3.7	6
53	Electrochemical immunosensor signaling by employing enzyme-tagged antibody for the determination of antigen or antibody under single competition reaction format. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , <b>2008</b> , 313-314, 509-514	5.1	6
52	Treatment of highly polluted groundwater by novel iron removal process. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , <b>2001</b> , 36, 25-38	2.3	6
51	Fed-batch hairy root cultures within situ separation. <i>Biotechnology and Bioprocess Engineering</i> , <b>1999</b> , 4, 106-111	3.1	6
50	Tracking of STAT3 signaling for anticancer drug-discovery based on localized surface plasmon resonance. <i>Analyst</i> , <b>2016</b> , 141, 2493-501	5	6
49	Two-Dimensional Microfluidic System for the Simultaneous Quantitative Analysis of Phototactic/Chemotactic Responses of Microalgae. <i>Analytical Chemistry</i> , <b>2018</b> , 90, 14029-14038	7.8	6
48	Concurrent enhancement of CO fixation and productivities of omega-3 fatty acids and astaxanthin in <i>Haematococcus pluvialis</i> culture via calcium-mediated homeoviscous adaptation and biomineralization. <i>Bioresource Technology</i> , <b>2021</b> , 340, 125720	11	6
47	Safe and Complete Extraction of Astaxanthin from <i>Haematococcus pluvialis</i> by Efficient Mechanical Disruption of Cyst Cell Wall. <i>International Journal of Food Engineering</i> , <b>2019</b> , 15,	1.9	5
46	Adjuvant effect of B domain of staphylococcal protein A displayed on the surface of hepatitis B virus capsid. <i>Biotechnology and Bioengineering</i> , <b>2016</b> , 113, 268-74	4.9	5
45	Multiplex real-time PCR using temperature sensitive primer-supplying hydrogel particles and its application for malaria species identification. <i>PLoS ONE</i> , <b>2018</b> , 13, e0190451	3.7	5
44	Development of Hydrogel Microparticle based RT-qPCR for Advanced Detection of BCR-ABL1 Transcripts. <i>Biochip Journal</i> , <b>2019</b> , 13, 182-190	4	5
43	Distinct Rayleigh scattering from hot spot mutant p53 proteins reveals cancer cells. <i>Small</i> , <b>2014</b> , 10, 2954-62	4.62	5
42	Detection of multiplex exosomal miRNAs for clinically accurate diagnosis of Alzheimer's disease using label-free plasmonic biosensor based on DNA-Assembled advanced plasmonic architecture. <i>Biosensors and Bioelectronics</i> , <b>2021</b> , 199, 113864	11.8	5

41	A green decontamination technology through selective biomineralization of algicidal microorganisms for enhanced astaxanthin production from <i>Haematococcus pluvialis</i> at commercial scale. <i>Bioresource Technology</i> , <b>2021</b> , 332, 125121	11	5
40	Improvement of Photoautotrophic Algal Biomass Production after Interrupted CO <sub>2</sub> Supply by Urea and KH <sub>2</sub> PO <sub>4</sub> Injection. <i>Energies</i> , <b>2021</b> , 14, 778	3.1	5
39	Strategies and advances in the pretreatment of microalgal biomass. <i>Journal of Biotechnology</i> , <b>2021</b> , 341, 63-75	3.7	5
38	Single plasmonic nanostructures for biomedical diagnosis. <i>Journal of Materials Chemistry B</i> , <b>2020</b> , 8, 6197-6216	7.5	4
37	Performance of point-of-care diagnosis of AIDS: label-free one-step-immunoassay vs. lateral flow assay. <i>Analyst, The</i> , <b>2018</b> , 143, 936-942	5	4
36	Reversible and multi-cyclic protein-protein interaction in bacterial cellulosome-mimic system using rod-shaped viral nanostructure. <i>Journal of Biotechnology</i> , <b>2016</b> , 221, 101-6	3.7	4
35	Nanoplasmonic probes of RNA folding and assembly during pre-mRNA splicing. <i>Nanoscale</i> , <b>2016</b> , 8, 4599-607	7.9	4
34	Evaluation of Chemical Interactions between Small Molecules in the Gas Phase Using Chemical Force Microscopy. <i>Sensors</i> , <b>2015</b> , 15, 30683-92	3.8	4
33	Highly sensitive surface-enhanced Raman scattering-based immunosensor incorporating half antibody-fragment for quantitative detection of Alzheimer's disease biomarker in blood.. <i>Analytica Chimica Acta</i> , <b>2022</b> , 1195, 339445	6.6	4
32	Microalgal fuels: Promising energy reserves for the future. <i>Fuel</i> , <b>2022</b> , 312, 122841	7.1	4
31	Microfluidic Dialysis Device Fabrication for Protein Solution Enrichment and Its Enrichment Enhancement by Plasma Surface Treatment of a Membrane. <i>Journal of the Korean Physical Society</i> , <b>2007</b> , 51, 993	0.6	4
30	Augmented CO <sub>2</sub> tolerance by expressing a single H-pump enables microalgal valorization of industrial flue gas. <i>Nature Communications</i> , <b>2021</b> , 12, 6049	17.4	4
29	Nanofluid research advances: Preparation, characteristics and applications in food processing. <i>Food Research International</i> , <b>2021</b> , 150, 110751	7	4
28	Homologous sense and antisense expression of a gene in <i>Dunaliella tertiolecta</i> . <i>Planta</i> , <b>2015</b> , 242, 1051-8	4.7	3
27	Arginine-fed cultures generates triacylglycerol by triggering nitrogen starvation responses during robust growth in <i>Chlamydomonas</i> . <i>Algal Research</i> , <b>2020</b> , 46, 101782	5	3
26	Vibration-induced stress priming during seed culture increases microalgal biomass in high shear field-cultivation. <i>Bioresource Technology</i> , <b>2018</b> , 254, 340-346	11	3
25	Identification of small droplets of photosynthetic squalene in engineered <i>Synechococcus elongatus</i> PCC 7942 using TEM and selective fluorescent Nile red analysis. <i>Letters in Applied Microbiology</i> , <b>2018</b> , 66, 523-529	2.9	3
24	Recombinant tagging system using ribosomal frameshifting to monitor protein expression. <i>Biotechnology and Bioengineering</i> , <b>2013</b> , 110, 898-904	4.9	3

23	Fluorogenic pH-sensitive polydiacetylene (PDA) liposomes as a drug carrier. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2013</b> , 13, 3792-800	1.3	3
22	Aptamer biosensors for label-free colorimetric detection of human IgE based on polydiacetylene (PDA) supramolecules. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2011</b> , 11, 4269-74	1.3	3
21	Glutamate decarboxylase-derived IDDM autoantigens displayed on self-assembled protein nanoparticles. <i>Biochemical and Biophysical Research Communications</i> , <b>2005</b> , 327, 604-8	3.4	3
20	Effective contamination control strategies facilitating axenic cultivation of <i>Haematococcus pluvialis</i> : Risks and challenges. <i>Bioresource Technology</i> , <b>2022</b> , 344, 126289	11	3
19	Electrorheological suspensions of two polarizable particles. <i>Korean Journal of Chemical Engineering</i> , <b>1999</b> , 16, 338-342	2.8	2
18	Reconsidering the potential of direct microalgal biomass utilization as end-products: A review. <i>Renewable and Sustainable Energy Reviews</i> , <b>2021</b> , 155, 111930	16.2	2
17	Multifaceted strategies for economic production of microalgae <i>Haematococcus pluvialis</i> -derived astaxanthin via direct conversion of CO. <i>Bioresource Technology</i> , <b>2022</b> , 344, 126255	11	2
16	Macular pigment-enriched oil production from genome-edited microalgae.. <i>Microbial Cell Factories</i> , <b>2022</b> , 21, 27	6.4	2
15	Dynamic characteristics of bed collapse in three-phase fluidized beds. <i>Korean Journal of Chemical Engineering</i> , <b>2003</b> , 20, 1166-1169	2.8	1
14	Effects of NO <sub>x</sub> and SO <sub>x</sub> on the Medium pH and microalgal growth in photo-culture system. <i>Transactions of the Korean Hydrogen and New Energy Society</i> , <b>2013</b> , 24, 255-263	0.5	1
13	Label-free and highly sensitive nanoplasmonic biosensor-based autophagy flux sensing for clinical application. <i>Sensors and Actuators B: Chemical</i> , <b>2022</b> , 350, 130880	8.5	1
12	Microalgal Biorefinery: A Sustainable Technology Toward Circular Bioeconomy and Microalgal Biomass Valorization <b>2021</b> , 323-350		1
11	Precisely Controlled Three-Dimensional Gold Nanoparticle Assembly Based on Spherical Bacteriophage Scaffold for Molecular Sensing via Surface-Enhanced Raman Scattering. <i>Journal of Physical Chemistry C</i> , <b>2021</b> , 125, 2502-2510	3.8	1
10	Preparation of highly stable oligo(ethylene glycol) derivatives-functionalized gold nanoparticles and their application in LSPR-based detection of PSA/ACT complex. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2007</b> , 7, 3754-7	1.3	1
9	Waste mitigation and resource recovery from food industry wastewater employing microalgae-bacterial consortium.. <i>Bioresource Technology</i> , <b>2022</b> , 352, 127129	11	1
8	Sustainable microalgal biomass production in food industry wastewater for low-cost biorefinery products: a review.. <i>Phytochemistry Reviews</i> , <b>2022</b> , 1-23	7.7	1
7	Strategy for high-yield astaxanthin recovery directly from wet <i>Haematococcus pluvialis</i> without pretreatment.. <i>Bioresource Technology</i> , <b>2021</b> , 126616	11	0
6	Highly sensitive and multiplexed one-step RT-qPCR for profiling genes involved in the circadian rhythm using microparticles. <i>Scientific Reports</i> , <b>2021</b> , 11, 6463	4.9	0

5	Nanoplasmonic biosensing of specific LC3 autophagy markers enabling drug discovery of autophagy modulators. <i>Sensors and Actuators B: Chemical</i> , <b>2022</b> , 131744	8.5	o
4	Accelerated sunlight-driven conversion of industrial flue gas into biofuels by microfluidic high-throughput screening towards improving photosynthesis in microalgae under fluctuating light. <i>Chemical Engineering Journal</i> , <b>2022</b> , 136487	14.7	o
3	Overview of Microalgae-Based Carbon Capture and Utilization <b>2018</b> , 287-294		
2	Effect of magnetic modulation of mitochondrial voltage-dependent anion channel 2 against beta-amyloid induced neurotoxicity. <i>RSC Advances</i> , <b>2014</b> , 4, 63681-63684	3.7	
1	Biomedical Applications: A Novel Bioassay Platform Using Ferritin-Based Nanoprobe Hydrogel (Adv. Mater. 35/2012). <i>Advanced Materials</i> , <b>2012</b> , 24, 4730-4730	24	