

Byoung Chan Kim

List of Publications by Citations

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

56
papers

2,219
citations

27
h-index

46
g-index

56
ext. papers

2,385
ext. citations

7.7
avg, IF

4.55
L-index

#	Paper	IF	Citations
56	Analysis of the toxic mode of action of silver nanoparticles using stress-specific bioluminescent bacteria. <i>Small</i> , 2008 , 4, 746-50	11	321
55	Preparation of biocatalytic nanofibres with high activity and stability via enzyme aggregate coating on polymer nanofibres. <i>Nanotechnology</i> , 2005 , 16, S382-8	3.4	161
54	A cell array biosensor for environmental toxicity analysis. <i>Biosensors and Bioelectronics</i> , 2005 , 21, 500-7	11.8	125
53	A magnetically separable, highly stable enzyme system based on nanocomposites of enzymes and magnetic nanoparticles shipped in hierarchically ordered, mesocellular, mesoporous silica. <i>Small</i> , 2005 , 1, 1203-7	11	99
52	Immobilization of glucose oxidase into polyaniline nanofiber matrix for biofuel cell applications. <i>Biosensors and Bioelectronics</i> , 2011 , 26, 3908-13	11.8	80
51	Highly sensitive sandwich-type SPR based detection of whole H5Nx viruses using a pair of aptamers. <i>Biosensors and Bioelectronics</i> , 2016 , 86, 293-300	11.8	79
50	Isolation and characterization of DNA aptamers against Escherichia coli using a bacterial cell-systematic evolution of ligands by exponential enrichment approach. <i>Analytical Biochemistry</i> , 2013 , 436, 22-8	3.1	76
49	Magnetic mesoporous materials for removal of environmental wastes. <i>Journal of Hazardous Materials</i> , 2011 , 192, 1140-7	12.8	71
48	A bioluminescent sensor for high throughput toxicity classification. <i>Biosensors and Bioelectronics</i> , 2003 , 18, 1015-21	11.8	67
47	Whole-cell-based biosensors for environmental biomonitoring and application. <i>Advances in Biochemical Engineering/Biotechnology</i> , 2004 , 87, 269-305	1.7	66
46	Highly Efficient Enzyme Immobilization and Stabilization within Meso-Structured Onion-Like Silica for Biodiesel Production. <i>Chemistry of Materials</i> , 2012 , 24, 924-929	9.6	64
45	Aptamer cocktails: enhancement of sensing signals compared to single use of aptamers for detection of bacteria. <i>Biosensors and Bioelectronics</i> , 2014 , 54, 195-8	11.8	58
44	Highly stable trypsin-aggregate coatings on polymer nanofibers for repeated protein digestion. <i>Proteomics</i> , 2009 , 9, 1893-900	4.8	54
43	Nanobiocatalysis for protein digestion in proteomic analysis. <i>Proteomics</i> , 2010 , 10, 687-99	4.8	50
42	Highly stable enzyme precipitate coatings and their electrochemical applications. <i>Biosensors and Bioelectronics</i> , 2011 , 26, 1980-6	11.8	47
41	Monitoring and classification of PAH toxicity using an immobilized bioluminescent bacteria. <i>Biosensors and Bioelectronics</i> , 2003 , 18, 571-7	11.8	46
40	An oxidative stress-specific bacterial cell array chip for toxicity analysis. <i>Biosensors and Bioelectronics</i> , 2007 , 22, 2223-9	11.8	44

39	Fast and continuous microorganism detection using aptamer-conjugated fluorescent nanoparticles on an optofluidic platform. <i>Biosensors and Bioelectronics</i> , 2015 , 67, 303-8	11.8	43
38	Magnetically-separable and highly-stable enzyme system based on crosslinked enzyme aggregates shipped in magnetite-coated mesoporous silica. <i>Journal of Materials Chemistry</i> , 2009 , 19, 7864		43
37	Nanoscale enzyme reactors in mesoporous carbon for improved performance and lifetime of biosensors and biofuel cells. <i>Biosensors and Bioelectronics</i> , 2010 , 26, 655-60	11.8	42
36	Stable and continuous long-term enzymatic reaction using an enzyme-nanofiber composite. <i>Applied Microbiology and Biotechnology</i> , 2007 , 75, 1301-7	5.7	40
35	Evaluation of a high throughput toxicity biosensor and comparison with a Daphnia magna bioassay. <i>Biosensors and Bioelectronics</i> , 2003 , 18, 821-6	11.8	34
34	A multi-channel continuous water toxicity monitoring system: its evaluation and application to water discharged from a power plant. <i>Environmental Monitoring and Assessment</i> , 2005 , 109, 123-33	3.1	33
33	Screening of target-specific stress-responsive genes for the development of cell-based biosensors using a DNA microarray. <i>Analytical Chemistry</i> , 2005 , 77, 8020-6	7.8	29
32	Broadly reactive aptamers targeting bacteria belonging to different genera using a sequential toggle cell-SELEX. <i>Scientific Reports</i> , 2017 , 7, 43641	4.9	28
31	Development of a DNA microarray chip for the identification of sludge bacteria using an unsequenced random genomic DNA hybridization method. <i>Environmental Science & Technology</i> , 2004 , 38, 6767-74	10.3	28
30	Rapid and efficient protein digestion using trypsin-coated magnetic nanoparticles under pressure cycles. <i>Proteomics</i> , 2011 , 11, 309-18	4.8	27
29	Prediction and classification of the modes of genotoxic actions using bacterial biosensors specific for DNA damages. <i>Biosensors and Bioelectronics</i> , 2009 , 25, 767-72	11.8	24
28	A novel bioluminescent bacterial biosensor using the highly specific oxidative stress-inducible pgi gene. <i>Biosensors and Bioelectronics</i> , 2008 , 24, 670-5	11.8	24
27	An aptamer cocktail-functionalized photocatalyst with enhanced antibacterial efficiency towards target bacteria. <i>Journal of Hazardous Materials</i> , 2016 , 318, 247-254	12.8	23
26	Trypsin coatings on electrospun and alcohol-dispersed polymer nanofibers for a trypsin digestion column. <i>Analytical Chemistry</i> , 2010 , 82, 7828-34	7.8	23
25	Multiple and simultaneous detection of specific bacteria in enriched bacterial communities using a DNA microarray chip with randomly generated genomic DNA probes. <i>Analytical Chemistry</i> , 2005 , 77, 2311-7	7.8	23
24	Construction of a nrdA::luxCDABE Fusion and Its Use in Escherichia coli as a DNA Damage Biosensor. <i>Sensors</i> , 2008 , 8, 1297-1307	3.8	20
23	The continuous monitoring of field water samples with a novel multi-channel two-stage mini-bioreactor system. <i>Environmental Monitoring and Assessment</i> , 2001 , 70, 71-81	3.1	19
22	Specific detection of DNA using quantum dots and magnetic beads for large volume samples. <i>Biotechnology and Bioprocess Engineering</i> , 2006 , 11, 449-454	3.1	18

21	Robust trypsin coating on electrospun polymer nanofibers in rigorous conditions and its uses for protein digestion. <i>Biotechnology and Bioengineering</i> , 2010 , 107, 917-23	4.9	16
20	A dip-stick type biosensor using bioluminescent bacteria encapsulated in color-coded alginate microbeads for detection of water toxicity. <i>Analyst, The</i> , 2014 , 139, 4696-701	5	15
19	The development of paper discs immobilized with luciferase/D-luciferin for the detection of ATP from airborne bacteria. <i>Sensors and Actuators B: Chemical</i> , 2018 , 260, 274-281	8.5	14
18	Efficient protein digestion using highly-stable and reproducible trypsin coatings on magnetic nanofibers. <i>Chemical Engineering Journal</i> , 2016 , 288, 770-777	14.7	14
17	Characterization of <i>gltA</i> : <i>luxCDABE</i> fusion in <i>Escherichia coli</i> as a toxicity biosensor. <i>Biotechnology and Bioprocess Engineering</i> , 2006 , 11, 516-521	3.1	14
16	Continuous Surveillance of Bioaerosols On-Site Using an Automated Bioaerosol-Monitoring System. <i>ACS Sensors</i> , 2020 , 5, 395-403	9.2	12
15	Enzyme precipitate coatings of glucose oxidase onto carbon paper for biofuel cell applications. <i>Biotechnology and Bioengineering</i> , 2012 , 109, 318-24	4.9	12
14	A sensitive and reliable detection of thrombin via enzyme-precipitate-coating-linked aptamer assay. <i>Chemical Communications</i> , 2012 , 48, 5971-3	5.8	12
13	Enzyme precipitate coatings of lipase on polymer nanofibers. <i>Bioprocess and Biosystems Engineering</i> , 2011 , 34, 841-7	3.7	12
12	Characterization of superoxide-stress sensing recombinant <i>Escherichia coli</i> constructed using promoters for genes <i>zwf</i> and <i>fpr</i> fused to <i>lux</i> operon. <i>Applied Microbiology and Biotechnology</i> , 2007 , 74, 1276-83	5.7	11
11	Ethanol-Dispersed Polymer Nanofibers as a Highly Selective Cell Isolation and Release Platform for CD4+ T Lymphocytes. <i>Advanced Functional Materials</i> , 2012 , 22, 4448-4455	15.6	9
10	Bacterial target-specific photocatalyst for the enhancement of antibacterial property to targets. <i>Applied Catalysis B: Environmental</i> , 2014 , 148, 568-572	21.8	8
9	Rapid isolation of bacteria-specific aptamers with a non-SELEX-based method. <i>Analytical Biochemistry</i> , 2020 , 591, 113542	3.1	8
8	A colorimetric assay for detection of 6-OH-BDE-47 using 6-OH-BDE-47-specific aptamers and gold nanoparticles. <i>Sensors and Actuators B: Chemical</i> , 2017 , 248, 298-304	8.5	7
7	Expression analysis of stress-specific responsive genes in two-stage continuous cultures of <i>Escherichia coli</i> using cDNA microarray and real-time RT-PCR analysis. <i>Enzyme and Microbial Technology</i> , 2006 , 39, 440-446	3.8	7
6	DNA aptamers for selective identification and separation of flame retardant chemicals. <i>Analytica Chimica Acta</i> , 2016 , 936, 208-15	6.6	6
5	A subtractively optimized DNA microarray using non-sequenced genomic probes for the detection of food-borne pathogens. <i>Applied Biochemistry and Biotechnology</i> , 2011 , 164, 183-93	3.2	5
4	Discrimination of toxic impacts of various chemicals using chemical gene expression profiling of <i>Escherichia coli</i> DNA microarray. <i>Process Biochemistry</i> , 2007 , 42, 392-400	4.8	4

3	Enzyme-Nanofiber Composites for Biocatalysis Applications. <i>ACS Symposium Series</i> , 2008 , 254-262	0.4	2
2	Implementation of random bacterial genomic DNA microarray chip (RBGDMC) for screening of dominant bacteria in complex cultures. <i>Applied Biochemistry and Biotechnology</i> , 2010 , 162, 2284-93	3.2	1
1	Specific detection of <i>Cronobacter sakazakii</i> in powdered infant formula using ssDNA aptamer. <i>Analyst, The</i> , 2021 , 146, 3534-3542	5	1