Jin-Woo Kim

List of Publications by Year
in descending order

102	3,413	257357	143943
papers	citations	24 h-index	57 g-index

105	105	105	4650
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Golden carbon nanotubes as multimodal photoacoustic and photothermal high-contrast molecular agents. Nature Nanotechnology, 2009, 4, 688-694.	15.6	656
2	In vivo magnetic enrichment and multiplex photoacoustic detection of circulating tumour cells. Nature Nanotechnology, 2009, 4, 855-860.	15.6	544
3	Self-assembling nanoclusters in living systems: application for integrated photothermal nanodiagnostics and nanotherapy. Nanomedicine: Nanotechnology, Biology, and Medicine, 2005, 1, 326-345.	1.7	213
4	Photoacoustic flow cytometry: principle and application for real-time detection of circulating single nanoparticles, pathogens, and contrast dyes in vivo. Journal of Biomedical Optics, 2007, 12, 051503.	1.4	151
5	Photothermal antimicrobial nanotherapy and nanodiagnostics with selfâ€assembling carbon nanotube clusters. Lasers in Surgery and Medicine, 2007, 39, 622-634.	1.1	133
6	Nanotechnologyâ€based molecular photoacoustic and photothermal flow cytometry platform for inâ€vivo detection and killing of circulating cancer stem cells. Journal of Biophotonics, 2009, 2, 725-735.	1.1	126
7	Photothermal nanodrugs: potential of TNF-gold nanospheres for cancer theranostics. Scientific Reports, 2013, 3, 1293.	1.6	121
8	Advanced contrast nanoagents for photoacoustic molecular imaging, cytometry, blood test and photothermal theranostics. Contrast Media and Molecular Imaging, 2011, 6, 346-369.	0.4	111
9	In vivo fiberâ€based multicolor photoacoustic detection and photothermal purging of metastasis in sentinel lymph nodes targeted by nanoparticles. Journal of Biophotonics, 2009, 2, 528-539.	1.1	107
10	DNAâ€Linked Nanoparticle Building Blocks for Programmable Matter. Angewandte Chemie - International Edition, 2011, 50, 9185-9190.	7.2	88
11	In Vivo Magnetic Enrichment, Photoacoustic Diagnosis, and Photothermal Purging of Infected Blood Using Multifunctional Gold and Magnetic Nanoparticles. PLoS ONE, 2012, 7, e45557.	1.1	78
12	Amylase partitioning and extractive bioconversion of starch using thermoseparating aqueous two-phase systems. Journal of Biotechnology, 2002, 93, 15-26.	1.9	66
13	Nanotheranostics of Circulating Tumor Cells, Infections and Other Pathological Features in Vivo. Molecular Pharmaceutics, 2013, 10, 813-830.	2.3	59
14	Maximizing production of cellulose nanocrystals and nanofibers from pre-extracted loblolly pine kraft pulp: a response surface approach. Bioresources and Bioprocessing, 2020, 7, .	2.0	55
15	Isolation and characterization of Î²-galactosidase fromLactobacillus crispatus. Folia Microbiologica, 2000, 45, 29-34.	1.1	43
16	Biochemical confirmation and characterization of the family-57-like Î±-amylase ofMethanococcus jannaschii. Folia Microbiologica, 2001, 46, 467-473.	1.1	43
17	Cellulose Nanocrystals as Advanced "Green" Materials for Biological and Biomedical Engineering. Journal of Biosystems Engineering, 2015, 40, 373-393.	1.2	35
18	Design and test of noncrosshybridizing oligonucleotide building blocks for DNA computers and nanostructures. Applied Physics Letters, 2003, 82, 1305-1307.	1.5	34

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19	Pulsedâ€Electromagneticâ€Fieldâ€Assisted Reduced Graphene Oxide Substrates for Multidifferentiation of Human Mesenchymal Stem Cells. Advanced Healthcare Materials, 2016, 5, 2069-2079.	3.9	33
20	Investigating the effects of hemicellulose pre-extraction on the production and characterization of loblolly pine nanocellulose. Cellulose, 2020, 27, 3693-3706.	2.4	33
21	Assessing the Detection Capacity of Microarrays as Bio/Nanosensing Platforms. BioMed Research International, 2013, 2013, 1-8.	0.9	31
22	Selective Pathogen Targeting and Macrophage Evading Carbon Nanotubes Through Dextran Sulfate Coating and PEGylation for Photothermal Theranostics. Journal of Biomedical Nanotechnology, 2013, 9, 1008-1016.	0.5	30
23	Molecular Selfâ€Assembly of Multifunctional Nanoparticle Composites with Arbitrary Shapes and Functions: Challenges and Strategies. Particle and Particle Systems Characterization, 2013, 30, 117-132.	1.2	29
24	Pretreatments for Enhanced Enzymatic Hydrolysis of Pinewood: a Review. Bioenergy Research, 2017, 10, 1138-1154.	2.2	28
25	Enhanced-Rate Biodegradation of Organophosphate Neurotoxins by Immobilized Nongrowing Bacteria. Biotechnology Progress, 2002, 18, 429-436.	1.3	25
26	In situ fluorescence microscopy visualization and characterization of nanometer-scale carbon nanotubes labeled with 1-pyrenebutanoic acid, succinimidyl ester. Applied Physics Letters, 2006, 88, 213110.	1.5	25
27	Microscale hybrid devices powered by biological flagellar motors. IEEE Transactions on Automation Science and Engineering, 2006, 3, 260-263.	3.4	23
28	Kinetic enhancement of starch bioconversion in thermoseparating aqueous two-phase reactor systems. Biochemical Engineering Journal, 2002, 11, 25-32.	1.8	21
29	A Bioconjugated Chlorin-Based Metalâ€“Organic Framework for Targeted Photodynamic Therapy of Triple Negative Breast and Pancreatic Cancers. ACS Applied Bio Materials, 2021, 4, 1432-1440.	2.3	19
30	Enhanced Osteogenesis of Human Mesenchymal Stem Cells in Presence of Single-Walled Carbon Nanotubes. IEEE Transactions on Nanobioscience, 2019, 18, 463-468.	2.2	18
31	Hierarchically Micro- and Nanopatterned Topographical Cues for Modulation of Cellular Structure and Function. IEEE Transactions on Nanobioscience, 2016, 15, 835-842.	2.2	17
32	3D-printed peristaltic microfluidic systems fabricated from thermoplastic elastomer. Microfluidics and Nanofluidics, 2017, 21, 1.	1.0	17
33	Nanocrystalline Cellulose-Derived Doped Carbonaceous Material for Rapid Mineralization of Nitrophenols under Visible Light. ACS Omega, 2018, 3, 8111-8121.	1.6	17
34	In Vitro Biocompatibility of Electrospun Poly(Îµ-Caprolactone)/Cellulose Nanocrystals-Nanofibers for Tissue Engineering. Journal of Nanomaterials, 2019, 2019, 1-11.	1.5	17
35	Microbial C-hydroxylation and Î²-4-O-methylglucosidation of methyl-benzamide 7-azanorbornane ethers with Beauveria bassiana. Journal of Molecular Catalysis B: Enzymatic, 2003, 21, 97-105.	1.8	16
36	Amyloglucosidase enzymatic reactivity inside lipid vesicles. Journal of Biological Engineering, 2007, 1, 4.	2.0	16

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37	Carbon nanotube clusters as universal bacterial adsorbents and magnetic separation agents. Biotechnology Progress, 2010, 26, 179-185.	1.3	16
38	Carbon Nanotubes Fed on â€œCarbsâ€• Coating of Singleâ€Walled Carbon Nanotubes by Dextran Sulfate. Macromolecular Bioscience, 2010, 10, 231-238.	2.1	16
39	Sequential Solid-Phase Fabrication of Bifunctional Anchors on Gold Nanoparticles for Controllable and Scalable Nanoscale Structure Assembly. Langmuir, 2008, 24, 5667-5671.	1.6	15
40	Stealth nanotubes: strategies of shielding carbon nanotubes to evade opsonization and improve biodistribution. International Journal of Nanomedicine, 2014, 9 Suppl 1, 85.	3.3	15
41	Maltotriose Conjugated Metalâ€“Organic Frameworks for Selective Targeting and Photodynamic Therapy of Triple Negative Breast Cancer Cells and Tumor Associated Macrophages. Advanced Therapeutics, 2020, 3, 2000029.	1.6	15
42	Exosomes: Biological Pharmaceutical Nanovectors for Theranostics. Frontiers in Bioengineering and Biotechnology, 2021, 9, 808614.	2.0	15
43	An Aligned Carbon Nanotube Biosensor for DNA Detection. , 2007, , .		14
44	Simultaneously Controlled Directionality and Valency on a Water-Soluble Gold Nanoparticle Precursor for Aqueous-Phase Anisotropic Self-Assembly. Langmuir, 2010, 26, 18634-18638.	1.6	13
45	Bio-Hybrid Micro/Nanodevices Powered by Flagellar Motor: Challenges and Strategies. Frontiers in Bioengineering and Biotechnology, 2015, 3, 100.	2.0	13
46	Enhanced osteogenic potential of unzipped carbon nanotubes for tissue engineering. Journal of Biomedical Materials Research - Part A, 2021, 109, 1869-1880.	2.1	12
47	Estimating the sequence complexity of a random oligonucleotide population by using in vitro thermal melting and Cot analyses. Nanomedicine: Nanotechnology, Biology, and Medicine, 2005, 1, 220-230.	1.7	11
48	Aqueous-phase synthesis of monodisperse plasmonic gold nanocrystals using shortened single-walled carbon nanotubes. Chemical Communications, 2010, 46, 7142.	2.2	11
49	Diffusion of Single-Walled Carbon Nanotube Under Physiological Conditions. Journal of Biomedical Nanotechnology, 2013, 9, 1065-1070.	0.5	11
50	Chemo-sensitivity and reliability of flagellar rotary motor in a MEMS microfluidic actuation system. Sensors and Actuators B: Chemical, 2006, 114, 229-238.	4.0	10
51	Programmable Construction of Nanostructures: Assembly of Nanostructures with Various Nanocomponents. IEEE Nanotechnology Magazine, 2012, 6, 19-23.	0.9	10
52	Beneficial effects of Trametes versicolor pretreatment on saccharification and lignin enrichment of organosolv-pretreated pinewood. RSC Advances, 2017, 7, 45652-45661.	1.7	10
53	Physical Stimulation-Based Osteogenesis: Effect of Secretion <italic>In Vitro</italic> on Fluid Dynamic Shear Stress of Human Alveolar Bone-Derived Mesenchymal Stem Cells. IEEE Transactions on Nanobioscience, 2016, 15, 881-890.	2.2	9
54	Test Tube Selection of Large Independent Sets of DNA Oligonucleotides. , 2006, , 147-161.		8

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55	Alternative antimicrobial compounds to control potential Lactobacillus contamination in bioethanol fermentations. Journal of Environmental Science and Health - Part B Pesticides, Food Contaminants, and Agricultural Wastes, 2011, 46, 709-14.	0.7	8
56	Screening Extremophiles for Bioconversion Potentials. Biotechnology Progress, 2006, 22, 1720-1724.	1.3	7
57	Fluorescent ampicillin analogues as multifunctional disguising agents against opsonization. Nanoscale, 2016, 8, 12658-12667.	2.8	6
58	Design Approaches and Computational Tools for DNA Nanostructures. IEEE Open Journal of Nanotechnology, 2021, 2, 86-100.	0.9	6
59	Nanoscale flagellar-motor based MEMS biosensor for explosive detection. , 2008, , .		5
60	Independent Sets of DNA Oligonucleotides for Nanotechnology Applications. IEEE Transactions on Nanobioscience, 2010, 9, 38-43.	2.2	5
61	In vitro molecular machine learning algorithm via symmetric internal loops of DNA. BioSystems, 2017, 158, 1-9.	0.9	5
62	Permeability enhancement of Escherichia coli by singleâ€walled carbon nanotube treatment. Biotechnology Progress, 2017, 33, 654-657.	1.3	5
63	A Facile Microwave Assisted TEMPO/NaOCl/Oxone (KHSO 5) Mediated Micron Cellulose Oxidation Procedure: Preparation of Two Nano TEMPOâ€Cellulose Forms. Starch/Staerke, 2020, 72, 1900213.	1.1	5
64	PEGylated Gold Nanoparticle Toxicity in Cardiomyocytes: Assessment of Size, Concentration, and Time Dependency. IEEE Transactions on Nanobioscience, 2022, 21, 387-394.	2.2	5
65	Screening Extremophiles for Bioconversion Potentials. Biotechnology Progress, 2006, 22, 1720-1724.	1.3	4
66	Adhesion Study of Escherichia coli Cells on Nano-/Microtextured Surfaces in a Microfluidic System. IEEE Nanotechnology Magazine, 2008, 7, 573-579.	1.1	4
67	Development and characterization of fast-hardening composite cements composed of natural ceramics originated from horse bones and chitosan solution. Tissue Engineering and Regenerative Medicine, 2014, 11, 362-371.	1.6	4
68	Nanoscale Particles and Multifunctional Hybrid Soft Nanomaterials in Bio/Nanomedicine. , 2020, , 1-58.		4
69	Processing efficiency of immobilized nonâ€growing bacteria: Biocatalytic modeling and experimental analysis. Canadian Journal of Chemical Engineering, 1999, 77, 883-892.	0.9	3
70	Novel, thermostable family-13-like glycoside hydrolase fromMethanococcus jannaschii. Folia Microbiologica, 2001, 46, 475-481.	1.1	3
71	Harnessing the Power of Flagellar Motors. , 0, , .		3
72	Hybrid flagellar motor/MEMS based TNT detection system. , 2006, 6223, 66.		3

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73	Highly effective bacterial removal system using carbon nanotube clusters. , 2009, , .		3
74	Performance evaluation of a pneumatic-based micromixer for bioconjugation reaction. , 2010, , .		3
75	Energy-Cost Reduction in Starch Processing Using Aqueous Two Phase Reactor Systems. Separation Science and Technology, 2003, 38, 2709-2724.	1.3	2
76	Development of an electrically addressable DNA-based aligned multi-walled carbon nanotube nanosensor. , 0, , .		2
77	Putting E. coli to good use. IEEE Nanotechnology Magazine, 2008, 2, 4-8.	0.9	2
78	Back Cover: DNAâ€Linked Nanoparticle Building Blocks for Programmable Matter (Angew. Chem. Int. Ed.) Tj ETQq0 0 0 rgBT /Overlock 1	7.2	2
79	Electrical and Data-Retention Characteristics of Two-Terminal Thyristor Random Access Memory. IEEE Open Journal of Nanotechnology, 2020, 1, 163-169.	0.9	2
80	Rotational Control of Tethered Bacterial Flagellar Motor. , 2008, , .		1
81	Impedance spectroscopy of Chicken Infectious Laryngotracheitis Virus Based on atomic force microscopy. , 2009, , .		1
82	Subsurface nanoimaging by THz pulse near-field microscopy. , 2015, , .		1
83	Stem Cell Substrates: Pulsed-Electromagnetic-Field-Assisted Reduced Graphene Oxide Substrates for Multidifferentiation of Human Mesenchymal Stem Cells (Adv. Healthcare Mater. 16/2016). Advanced Healthcare Materials, 2016, 5, 2144-2144.	3.9	1
84	Nanotechnology-Based Stem Cell Applications and Imaging. Pancreatic Islet Biology, 2017, , 17-35.	0.1	1
85	Nanotechnology-Based Stem Cell Tissue Engineering with a Focus on Regeneration of Cardiovascular Systems. , 2019, , 1-67.		1
86	Cell-Derived Biomimetic Nanostructures for Biomedical Applications. , 2020, , 195-228.		1
87	Cues from the Nanoenvironment: The Role of Nanomaterials in Stem Cell Differentiation and Stem Cell Tissue Engineering. , 2020, , 361-400.		1
88	A microscale biosensor based on integration of sigle-stranded DNAs and aligned multi-walled carbon nanotubes. , 2005, , .		0
89	DNA-Directed Self-Assembly of Microscopic 1-D Carbon Nanotube Wire. , 2007, , .		0
90	Non-Crosshybridizing Oligonucleotide Building Blocks for Accurate, Scalable Nanofabrication. , 2007, , .		0

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91	Controlling the rotational behavior of bacterial flageller motors. , 2008, , .		0
92	The Effect of Surface Nano/Micro-Texturing on Escherichia Coli Cell Adhesion. , 2008, , .		0
93	Exploring the potential of microarray technology for bio/nano sensing. , 2009, , .		0
94	Electrical Properties of an Individual Chicken Infectious Laryngotracheitis Virus. IEEE Nanotechnology Magazine, 2010, 4, 10-14.	0.9	0
95	Sugar coated stealth carbon nanotubes. , 2010, , .		0
96	Controlled chemical functionalization of water-soluble nanoprobes for site-specific biomedical diagnosis. , 2010, , .		0
97	Nanoparticles: Molecular Self-Assembly of Multifunctional Nanoparticle Composites with Arbitrary Shapes and Functions: Challenges and Strategies (Part. Part. Syst. Charact. 2/2013). Particle and Particle Systems Characterization, 2013, 30, 112-112.	1.2	0
98	In Vivo Photoacoustic Detection of Circulating Cells and Nanoparticles. Frontiers in Nanobiomedical Research, 2014, , 453-487.	0.1	0
99	A DNA-based pattern classifier with in vitro learning and associative recall for genomic characterization and biosensing without explicit sequence knowledge. Journal of Biological Engineering, 2014, 8, 25.	2.0	0
100	Numerical Simulation of a Microscale Dynamo Driven by Tethered, Magnetized Bacterial Cell. , 2020, , .		0
101	Preparation and Characterization of Nanopatterned Polycaprolactone/Cellulose Nanocrystal Composite Membranes for Cardiovascular Tissue Engineering. , 2021, , .		0
102	Enhanced Localized Surface Plasmon Resonance of Gold Nanoparticles Synthesized on Cellulose Nanocrystals. , 2021, , .		0