Ki-Bum Lee

List of Publications by Year
in descending order

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126	9,378	39113	45040
papers	citations	52 h-index	94 g-index

139	139	139	15970
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Conformation- and phosphorylation-dependent electron tunnelling across self-assembled monolayers of tau peptides. Journal of Colloid and Interface Science, 2022, 606, 2038-2050.	5.0	2
2	Dynamic Ligand Screening by Magnetic Nanoassembly Modulates Stem Cell Differentiation. Advanced Materials, 2022, 34, e2105460.	11.1	23
3	Harnessing the Therapeutic Potential of Extracellular Vesicles for Biomedical Applications Using Multifunctional Magnetic Nanomaterials. Small, 2022, 18, e2104783.	5.2	31
4	A review of 3D printing technology for rapid medical diagnostic tools. Molecular Systems Design and Engineering, 2022, 7, 315-324.	1.7	10
5	Injectable hybrid inorganic nanoscaffold as rapid stem cell assembly template for cartilage repair. National Science Review, 2022, 9, nwac037.	4.6	9
6	Predictive Biophysical Cue Mapping for Direct Cell Reprogramming Using Combinatorial Nanoarrays. ACS Nano, 2022, 16, 5577-5586.	7.3	5
7	Receptorâ€Level Proximity and Fastening of Ligands Modulates Stem Cell Differentiation. Advanced Functional Materials, 2022, 32, .	7.8	11
8	Manipulating Nanoparticle Aggregates Regulates Receptorâ€“Ligand Binding in Macrophages. Journal of the American Chemical Society, 2022, 144, 5769-5783.	6.6	28
9	Ultrasensitive Electrochemical Detection of Mutated Viral RNAs with Single-Nucleotide Resolution Using a Nanoporous Electrode Array (NPEA). ACS Nano, 2022, 16, 5764-5777.	7.3	20
10	Biomolecular Electron Controller Composed of Nanobiohybrid with Electrically Released Complex for Spatiotemporal Control of Neuronal Differentiation. Small Methods, 2022, 6, 2100912.	4.6	4
11	Nanotechnology-enabled immunoengineering approaches to advance therapeutic applications. Nano Convergence, 2022, 9, 19.	6.3	12
12	Submolecular Ligand Size and Spacing for Cell Adhesion. Advanced Materials, 2022, 34, e2110340.	11.1	13
13	Hybrid Grapheneâ€Gold Nanoparticleâ€Based Nucleic Acid Conjugates for Cancerâ€Specific Multimodal Imaging and Combined Therapeutics. Advanced Functional Materials, 2021, 31, 2006918.	7.8	55
14	Remote Switching of Elastic Movement of Decorated Ligand Nanostructures Controls the Adhesionâ€Regulated Polarization of Host Macrophages. Advanced Functional Materials, 2021, 31, 2008698.	7.8	15
15	Remote Control of Timeâ€Regulated Stretching of Ligandâ€Presenting Nanocoils In Situ Regulates the Cyclic Adhesion and Differentiation of Stem Cells. Advanced Materials, 2021, 33, e2008353.	11.1	31
16	Magnetic Nanocoils: Remote Control of Timeâ€Regulated Stretching of Ligandâ€Presenting Nanocoils In Situ Regulates the Cyclic Adhesion and Differentiation of Stem Cells (Adv. Mater. 11/2021). Advanced Materials, 2021, 33, 2170084.	11.1	0
17	Immunoregulation of Macrophages by Controlling Winding and Unwinding of Nanohelical Ligands. Advanced Functional Materials, 2021, 31, 2103409.	7.8	19
18	Restoring Endogenous Repair Mechanisms to Heal Chronic Wounds with a Multifunctional Wound Dressing. Molecular Pharmaceutics, 2021, 18, 3171-3180.	2.3	17

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19	Clustered Regularly Interspaced Short Palindromic Repeats-Mediated Amplification-Free Detection of Viral DNAs Using Surface-Enhanced Raman Spectroscopy-Active Nanoarray. ACS Nano, 2021, 15, 13475-13485.	7.3	71
20	Gsx1 promotes locomotor functional recovery after spinal cord injury. Molecular Therapy, 2021, 29, 2469-2482.	3.7	31
21	Bioengineering Approaches for the Advanced Organoid Research. Advanced Materials, 2021, 33, e2007949.	11.1	48
22	Magnetic Control and Realâ€Time Monitoring of Stem Cell Differentiation by the Ligand Nanoassembly. Small, 2021, 17, e2102892.	5.2	22
23	Nanotechnology for Targeted Detection and Removal of Bacteria: Opportunities and Challenges. Advanced Science, 2021, 8, e2100556.	5.6	38
24	Hybrid SMART spheroids to enhance stem cell therapy for CNS injuries. Science Advances, 2021, 7, eabj2281.	4.7	18
25	Nkx6.1 enhances neural stem cell activation and attenuates glial scar formation and neuroinflammation in the adult injured spinal cord. Experimental Neurology, 2021, 345, 113826.	2.0	13
26	Remote Control of Neural Stem Cell Fate Using NIR-Responsive Photoswitching Upconversion Nanoparticle Constructs. ACS Applied Materials & Interfaces, 2020, 12, 40031-40041.	4.0	16
27	Spinalâ€Cord Injury Treatment: Effective Modulation of CNS Inhibitory Microenvironment using Bioinspired Hybridâ€Nanoscaffoldâ€Based Therapeutic Interventions (Adv. Mater. 43/2020). Advanced Materials, 2020, 32, 2070325.	11.1	0
28	Multiphase Drug Release in Hollow Multishelled Structures. CheM, 2020, 6, 2875-2877.	5.8	4
29	In Situ Detection of Neurotransmitters from Stem Cell-Derived Neural Interface at the Single-Cell Level via Graphene-Hybrid SERS Nanobiosensing. Nano Letters, 2020, 20, 7670-7679.	4.5	46
30	4Dâ€Printed Transformable Tube Array for Highâ€Throughput 3D Cell Culture and Histology. Advanced Materials, 2020, 32, e2004285.	11.1	26
31	Effective Modulation of CNS Inhibitory Microenvironment using Bioinspired Hybridâ€Nanoscaffoldâ€Based Therapeutic Interventions. Advanced Materials, 2020, 32, e2002578.	11.1	40
32	Functional nanoarrays for investigating stem cell fate and function. Nanoscale, 2020, 12, 9306-9326.	2.8	15
33	Combinatorial biophysical cue sensor array for controlling neural stem cell fate. Biosensors and Bioelectronics, 2020, 156, 112125.	5.3	20
34	Site-Specific Incorporation of a Dithiolane Containing Amino Acid into Proteins. Bioconjugate Chemistry, 2019, 30, 2102-2105.	1.8	5
35	Plasmon-Free Surface-Enhanced Raman Spectroscopy Using Metallic 2D Materials. ACS Nano, 2019, 13, 8312-8319.	7.3	94
36	Nondestructive Characterization of Stem Cell Neurogenesis by a Magneto-Plasmonic Nanomaterial-Based Exosomal miRNA Detection. ACS Nano, 2019, 13, 8793-8803.	7.3	65

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37	Dual-Enhanced Raman Scattering-Based Characterization of Stem Cell Differentiation Using Graphene-Plasmonic Hybrid Nanoarray. Nano Letters, 2019, 19, 8138-8148.	4.5	59
38	Impact of Protein Corona in Nanoflare-Based Biomolecular Detection and Quantification. Bioconjugate Chemistry, 2019, 30, 2555-2562.	1.8	13
39	Programmed degradation of a hierarchical nanoparticle with redox and light responsivity for self-activated photo-chemical enhanced chemodynamic therapy. Biomaterials, 2019, 224, 119498.	5.7	99
40	Tumor Homing Reactive Oxygen Species Nanoparticle for Enhanced Cancer Therapy. ACS Applied Materials & Interfaces, 2019, 11, 23909-23918.	4.0	27
41	Biosensors: NIR Biosensing of Neurotransmitters in Stem Cellâ€Derived Neural Interface Using Advanced Coreâ€“Shell Upconversion Nanoparticles (Adv. Mater. 14/2019). Advanced Materials, 2019, 31, 1970104.	11.1	5
42	Engineered Mesenchymal Stem Cell/Nanomedicine Spheroid as an Active Drug Delivery Platform for Combinational Glioblastoma Therapy. Nano Letters, 2019, 19, 1701-1705.	4.5	71
43	NIR Biosensing of Neurotransmitters in Stem Cellâ€Derived Neural Interface Using Advanced Coreâ€“Shell Upconversion Nanoparticles. Advanced Materials, 2019, 31, e1806991.	11.1	97
44	Developments in Bio-Inspired Nanomaterials for Therapeutic Delivery to Treat Hearing Loss. Frontiers in Cellular Neuroscience, 2019, 13, 493.	1.8	26
45	Magnetic Oleosome as a Functional Lipophilic Drug Carrier for Cancer Therapy. ACS Applied Materials & Interfaces, 2018, 10, 9301-9309.	4.0	42
46	Selective isolation and noninvasive analysis of circulating cancer stem cells through Raman imaging. Biosensors and Bioelectronics, 2018, 102, 372-382.	5.3	50
47	Generation of uniform-sized multicellular tumor spheroids using hydrogel microwells for advanced drug screening. Scientific Reports, 2018, 8, 17145.	1.6	89
48	Characterization of airborne particle release from nanotechnology-enabled clothing products. Journal of Nanoparticle Research, 2018, 20, 1.	0.8	3
49	Characterizing Molecular Adsorption on Biodegradable MnO₂ Nanoscaffolds. Journal of Physical Chemistry C, 2018, 122, 29017-29027.	1.5	11
50	Nondestructive Realâ€Time Monitoring of Enhanced Stem Cell Differentiation Using a Grapheneâ€Au Hybrid Nanoelectrode Array. Advanced Materials, 2018, 30, e1802762.	11.1	44
51	Overcoming Chemoresistance in Cancer via Combined MicroRNA Therapeutics with Anticancer Drugs Using Multifunctional Magnetic Coreâ€“Shell Nanoparticles. ACS Applied Materials & Interfaces, 2018, 10, 26954-26963.	4.0	52
52	SERS-Based Quantification of Biomarker Expression at the Single Cell Level Enabled by Gold Nanostars and Truncated Aptamers. Bioconjugate Chemistry, 2018, 29, 2970-2981.	1.8	48
53	A biodegradable hybrid inorganic nanoscaffold for advanced stem cell therapy. Nature Communications, 2018, 9, 3147.	5.8	87
54	Design and Development of a Novel Nanofiber Nasal Filter (NNF) to Improve Respiratory Health. Aerosol and Air Quality Research, 2018, 18, 2064-2076.	0.9	5

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55	Release of airborne particles and Ag and Zn compounds from nanotechnology-enabled consumer sprays: Implications for inhalation exposure. Atmospheric Environment, 2017, 155, 85-96.	1.9	21
56	Top2b is involved in the formation of outer segment and synapse during lateâ€stage photoreceptor differentiation by controlling key genes of photoreceptor transcriptional regulatory network. Journal of Neuroscience Research, 2017, 95, 1951-1964.	1.3	13
57	Advanced Gene Manipulation Methods for Stem Cell Theranostics. Theranostics, 2017, 7, 2775-2793.	4.6	12
58	NanoScript: A Versatile Nanoparticle-Based Synthetic Transcription Factor for Innovative Gene Manipulation. Methods in Molecular Biology, 2017, 1570, 239-249.	0.4	2
59	Development of Photoactivated Fluorescent Nâ€Hydroxyoxindoles and Their Application for Cellâ€Selective Imaging. Chemistry - A European Journal, 2016, 22, 6361-6367.	1.7	10
60	Multidimensional nanomaterials for the control of stem cell fate. Nano Convergence, 2016, 3, 23.	6.3	32
61	Effects of a nanoceria fuel additive on the physicochemical properties of diesel exhaust particles. Environmental Sciences: Processes and Impacts, 2016, 18, 1333-1342.	1.7	11
62	Engineering Stem Cells for Biomedical Applications. Advanced Healthcare Materials, 2016, 5, 10-55.	3.9	25
63	Nanotechnology-Based Approaches for Guiding Neural Regeneration. Accounts of Chemical Research, 2016, 49, 17-26.	7.6	73
64	Cyclophilin A promotes cell migration via the Abl-Crk signaling pathway. Nature Chemical Biology, 2016, 12, 117-123.	3.9	36
65	Stem cell-based gene therapy activated using magnetic hyperthermia to enhance the treatment of cancer. Biomaterials, 2016, 81, 46-57.	5.7	92
66	Nanoelectrodes: Large-Scale Nanoelectrode Arrays to Monitor the Dopaminergic Differentiation of Human Neural Stem Cells (Adv. Mater. 41/2015). Advanced Materials, 2015, 27, 6306-6306.	11.1	2
67	Induction of Stemâ€Cellâ€Derived Functional Neurons by NanoScriptâ€Based Gene Repression. Angewandte Chemie - International Edition, 2015, 54, 11983-11988.	7.2	18
68	Surface and Structural Investigation of a MnO_x Birnessiteâ€Type Water Oxidation Catalyst Formed under Photocatalytic Conditions. Chemistry - A European Journal, 2015, 21, 14218-14228.	1.7	29
69	Largeâ€Scale Nanoelectrode Arrays to Monitor the Dopaminergic Differentiation of Human Neural Stem Cells. Advanced Materials, 2015, 27, 6356-6362.	11.1	63
70	Integrating Epigenetic Modulators into NanoScript for Enhanced Chondrogenesis of Stem Cells. Journal of the American Chemical Society, 2015, 137, 4598-4601.	6.6	26
71	Design, Synthesis, and Characterization of Grapheneâ€“Nanoparticle Hybrid Materials for Bioapplications. Chemical Reviews, 2015, 115, 2483-2531.	23.0	603
72	Inducing Stem Cell Myogenesis Using NanoScript. ACS Nano, 2015, 9, 6909-6917.	7.3	24

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73	Probing stem cell behavior using nanoparticleâ€based approaches. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2015, 7, 759-778.	3.3	9
74	Controlling Differentiation of Adipose-Derived Stem Cells Using Combinatorial Graphene Hybrid-Pattern Arrays. ACS Nano, 2015, 9, 3780-3790.	7.3	139
75	Real-Time Monitoring of ATP-Responsive Drug Release Using Mesoporous-Silica-Coated Multicolor Upconversion Nanoparticles. ACS Nano, 2015, 9, 5234-5245.	7.3	157
76	Hybrid upconversion nanomaterials for optogenetic neuronal control. Nanoscale, 2015, 7, 16571-16577.	2.8	108
77	Electrically Controlled Delivery of Cargo into Single Human Neural Stem Cell. ACS Applied Materials & Interfaces, 2014, 6, 20709-20716.	4.0	3
78	Guiding Stem Cell Differentiation into Oligodendrocytes Using Grapheneâ€Nanofiber Hybrid Scaffolds. Advanced Materials, 2014, 26, 3673-3680.	11.1	265
79	An Upconversion Nanoparticle with Orthogonal Emissions Using Dual NIR Excitations for Controlled Twoâ€Way Photoswitching. Angewandte Chemie - International Edition, 2014, 53, 14419-14423.	7.2	137
80	Graphene: Guiding Stem Cell Differentiation into Oligodendrocytes Using Grapheneâ€Nanofiber Hybrid Scaffolds (Adv. Mater. 22/2014). Advanced Materials, 2014, 26, 3570-3570.	11.1	3
81	Photo-triggerable hydrogelâ€“nanoparticle hybrid scaffolds for remotely controlled drug delivery. Journal of Materials Chemistry B, 2014, 2, 7685-7693.	2.9	42
82	NanoScript: A Nanoparticle-Based Artificial Transcription Factor for Effective Gene Regulation. ACS Nano, 2014, 8, 8959-8967.	7.3	60
83	Coreâ€“Shell Nanoparticle-Based Peptide Therapeutics and Combined Hyperthermia for Enhanced Cancer Cell Apoptosis. ACS Nano, 2014, 8, 9379-9387.	7.3	120
84	Combined Magnetic Nanoparticleâ€based MicroRNA and Hyperthermia Therapy to Enhance Apoptosis in Brain Cancer Cells. Small, 2014, 10, 4106-4112.	5.2	103
85	Variability in Bioreactivity Linked to Changes in Size and Zeta Potential of Diesel Exhaust Particles in Human Immune Cells. PLoS ONE, 2014, 9, e97304.	1.1	12
86	Prospects for grapheneâ€“nanoparticle-based hybrid sensors. Physical Chemistry Chemical Physics, 2013, 15, 12785.	1.3	159
87	Exocytosis of nanoparticles from cells: Role in cellular retention and toxicity. Advances in Colloid and Interface Science, 2013, 201-202, 18-29.	7.0	212
88	Impacts of a Nanosized Ceria Additive on Diesel Engine Emissions of Particulate and Gaseous Pollutants. Environmental Science & Technology, 2013, 47, 13077-13085.	4.6	63
89	A Detailed Investigation on the Interactions between Magnetic Nanoparticles and Cell Membrane Models. ACS Applied Materials & Interfaces, 2013, 5, 13063-13068.	4.0	31
90	Versatile Fluorescence Resonance Energy Transfer-Based Mesoporous Silica Nanoparticles for Real-Time Monitoring of Drug Release. ACS Nano, 2013, 7, 2741-2750.	7.3	197

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91	Multimodal Magnetic Coreâ€“Shell Nanoparticles for Effective Stemâ€Cell Differentiation and Imaging. Angewandte Chemie - International Edition, 2013, 52, 6190-6195.	7.2	71
92	Axonal Alignment and Enhanced Neuronal Differentiation of Neural Stem Cells on Grapheneâ€Nanoparticle Hybrid Structures. Advanced Materials, 2013, 25, 5477-5482.	11.1	183
93	Single Vehicular Delivery of siRNA and Small Molecules to Control Stem Cell Differentiation. Journal of the American Chemical Society, 2013, 135, 15682-15685.	6.6	63
94	3D graphene oxide-encapsulated gold nanoparticles to detect neural stem cell differentiation. Biomaterials, 2013, 34, 8660-8670.	5.7	129
95	Nanotopography-mediated Reverse Uptake for siRNA Delivery into Neural Stem Cells to Enhance Neuronal Differentiation. Scientific Reports, 2013, 3, 1553.	1.6	61
96	Bionanotechnology: Axonal Alignment and Enhanced Neuronal Differentiation of Neural Stem Cells on Graphene-Nanoparticle Hybrid Structures (Adv. Mater. 38/2013). Advanced Materials, 2013, 25, 5476-5476.	11.1	0
97	Labelâ€Free Polypeptideâ€Based Enzyme Detection Using a Grapheneâ€Nanoparticle Hybrid Sensor (Adv.) Tj ETQq1 1 0.784314 rgBT /C	11.1	0
98	Labelâ€Free Polypeptideâ€Based Enzyme Detection Using a Grapheneâ€Nanoparticle Hybrid Sensor. Advanced Materials, 2012, 24, 6081-6087.	11.1	49
99	Incorporation of functionalized gold nanoparticles into nanofibers for enhanced attachment and differentiation of mammalian cells. Journal of Nanobiotechnology, 2012, 10, 23.	4.2	45
100	Generation of a Library of Nonâ€Toxic Quantum Dots for Cellular Imaging and siRNA Delivery. Advanced Materials, 2012, 24, 4014-4019.	11.1	80
101	Polarization-Controlled Differentiation of Human Neural Stem Cells Using Synergistic Cues from the Patterns of Carbon Nanotube Monolayer Coating. ACS Nano, 2011, 5, 4704-4711.	7.3	60
102	ZnO thin film transistor immunosensor with high sensitivity and selectivity. Applied Physics Letters, 2011, 98, 173702.	1.5	79
103	Synergistic Induction of Apoptosis in Brain Cancer Cells by Targeted Codelivery of siRNA and Anticancer Drugs. Molecular Pharmaceutics, 2011, 8, 1955-1961.	2.3	76
104	Grapheneâ€Encapsulated Nanoparticleâ€Based Biosensor for the Selective Detection of Cancer Biomarkers. Advanced Materials, 2011, 23, 2221-2225.	11.1	260
105	Carbon Nanotube Monolayer Cues for Osteogenesis of Mesenchymal Stem Cells. Small, 2011, 7, 741-745.	5.2	61
106	Graphiteâ€Coated Magnetic Nanoparticles as Multimodal Imaging Probes and Cooperative Therapeutic Agents for Tumor Cells. Small, 2011, 7, 1647-1652.	5.2	61
107	A Step Closer to Complete Chemical Reprogramming for Generating iPS Cells. ChemBioChem, 2010, 11, 755-757.	1.3	14
108	Controlling Differentiation of Neural Stem Cells Using Extracellular Matrix Protein Patterns. Small, 2010, 6, 2509-2513.	5.2	83

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109	Stem cell differentiation: Controlling Differentiation of Neural Stem Cells Using Extracellular Matrix Protein Patterns (Small 22/2010). Small, 2010, 6, 2508-2508.	5.2	0
110	A Microfluidic Platform for Systems Pathology: Multiparameter Single-Cell Signaling Measurements of Clinical Brain Tumor Specimens. Cancer Research, 2010, 70, 6128-6138.	0.4	106
111	Microfluidic image cytometry for quantitative single-cell profiling of human pluripotent stem cells in chemically defined conditions. Lab on A Chip, 2010, 10, 1113.	3.1	47
112	Integrated microfluidic devices for combinatorial cell-based assays. Biomedical Microdevices, 2009, 11, 547-555.	1.4	45
113	Phosphoproteomic Analysis of Human Embryonic Stem Cells. Cell Stem Cell, 2009, 5, 204-213.	5.2	177
114	An integrated microfluidic culture device for quantitative analysis of human embryonic stem cells. Lab on A Chip, 2009, 9, 555-563.	3.1	99
115	Nanotechnology for regenerative medicine: nanomaterials for stem cell imaging. Nanomedicine, 2008, 3, 567-578.	1.7	200
116	Separation of Tricomponent Protein Mixtures with Triblock Nanorods. Journal of the American Chemical Society, 2006, 128, 11825-11829.	6.6	62
117	Bioactive Protein Nanoarrays on Nickel Oxide Surfaces Formed by Dip-Pen Nanolithography. Angewandte Chemie - International Edition, 2004, 43, 1246-1249.	7.2	120
118	Multicomponent Magnetic Nanorods for Biomolecular Separations. Angewandte Chemie - International Edition, 2004, 43, 3048-3050.	7.2	172
119	The Use of Nanoarrays for Highly Sensitive and Selective Detection of Human Immunodeficiency Virus Type 1 in Plasma. Nano Letters, 2004, 4, 1869-1872.	4.5	237
120	A Massively Parallel Electrochemical Approach to the Miniaturization of Organic Micro- and Nanostructures on Surfaces. Langmuir, 2004, 20, 962-968.	1.6	22
121	Direct-Write Dip-Pen Nanolithography of Proteins on Modified Silicon Oxide Surfaces. Angewandte Chemie - International Edition, 2003, 42, 2309-2312.	7.2	208
122	Nanopatterning the Chemospecific Immobilization of Cowpea Mosaic Virus Capsid. Nano Letters, 2003, 3, 883-886.	4.5	163
123	Protein Nanostructures Formed via Direct-Write Dip-Pen Nanolithography. Journal of the American Chemical Society, 2003, 125, 5588-5589.	6.6	348
124	Biofunctionalized nanoarrays of inorganic structures prepared by dip-pen nanolithography. Nanotechnology, 2003, 14, 1113-1117.	1.3	92
125	Protein Nanoarrays Generated By Dip-Pen Nanolithography. Science, 2002, 295, 1702-1705.	6.0	1,161
126	Redox-Controlled Orthogonal Assembly of Charged Nanostructures. Journal of the American Chemical Society, 2001, 123, 12424-12425.	6.6	21