Hyukjin Lee

List of Publications by Year
in descending order

108 papers	17,342 citations	71102 41 h-index	28297 105 g-index
110 all docs	110 docs citations	110 times ranked	22442 citing authors

#	Article	IF	Citations
1	Mussel-Inspired Surface Chemistry for Multifunctional Coatings. Science, 2007, 318, 426-430.	12.6	9,012
2	Single-molecule mechanics of mussel adhesion. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 12999-13003.	7.1	1,814
3	Molecularly self-assembled nucleic acid nanoparticles for targeted in vivo siRNA delivery. Nature Nanotechnology, 2012, 7, 389-393.	31.5	1,015
4	The effect of incorporating RGD adhesive peptide in polyethylene glycol diacrylate hydrogel on osteogenesis of bone marrow stromal cells. Biomaterials, 2005, 26, 5991-5998.	11.4	434
5	Target-specific intracellular delivery of siRNA using degradable hyaluronic acid nanogels. Journal of Controlled Release, 2007, 119, 245-252.	9.9	337
6	Hyaluronic Acidâ^'Paclitaxel Conjugate Micelles: Synthesis, Characterization, and Antitumor Activity. Bioconjugate Chemistry, 2008, 19, 1319-1325.	3.6	230
7	Synthesis, characterization, and in vivo diagnostic applications of hyaluronic acid immobilized gold nanoprobes. Biomaterials, 2008, 29, 4709-4718.	11.4	183
8	Bioresponsive Phosphoester Hydrogels for Bone Tissue Engineering. Tissue Engineering, 2005, 11, 201-213.	4.6	172
9	Poly[lacticâ€coâ€(glycolic acid)]â€Grafted Hyaluronic Acid Copolymer Micelle Nanoparticles for Targetâ€Specific Delivery of Doxorubicin. Macromolecular Bioscience, 2009, 9, 336-342.	4.1	150
10	Catechol-Grafted Poly(ethylene glycol) for PEGylation on Versatile Substrates. Langmuir, 2010, 26, 3790-3793.	3.5	143
11	Engineered ionizable lipid nanoparticles for targeted delivery of RNA therapeutics into different types of cells in the liver. Science Advances, 2021, 7, .	10.3	141
12	Heparin immobilized gold nanoparticles for targeted detection and apoptotic death of metastatic cancer cells. Biomaterials, 2010, 31, 6530-6536.	11.4	133
13	Hydrogel Based Biosensors for In Vitro Diagnostics of Biochemicals, Proteins, and Genes. Advanced Healthcare Materials, 2017, 6, 1601475.	7.6	124
14	A new gene delivery formulation of polyethylenimine/DNA complexes coated with PEG conjugated fusogenic peptide. Journal of Controlled Release, 2001, 76, 183-192.	9.9	122
15	Emergence of synthetic mRNA: InÂvitro synthesis of mRNA and its applications in regenerative medicine. Biomaterials, 2018, 156, 172-193.	11.4	122
16	Heparin-immobilized biodegradable scaffolds for local and sustained release of angiogenic growth factor. Journal of Biomedical Materials Research - Part A, 2006, 79A, 934-942.	4.0	115
17	Nearâ€infrared lightâ€responsive nanomaterials for cancer theranostics. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2016, 8, 23-45.	6.1	115
18	Fluorescent Gold Nanoprobe Sensitive to Intracellular Reactive Oxygen Species. Advanced Functional Materials, 2009, 19, 1884-1890.	14.9	109

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19	Pyrogallol 2â€Aminoethane: A Plant Flavonoidâ€Inspired Molecule for Materialâ€Independent Surface Chemistry. Advanced Materials Interfaces, 2014, 1, 1400113.	3.7	104
20	Extracellular matrix remodeling in vivo for enhancing tumor-targeting efficiency of nanoparticle drug carriers using the pulsed high intensity focused ultrasound. Journal of Controlled Release, 2017, 263, 68-78.	9.9	104
21	Self-assembled mirror DNA nanostructures for tumor-specific delivery of anticancer drugs. Journal of Controlled Release, 2016, 243, 121-131.	9.9	102
22	Controlled Release of Paclitaxel from Heparinized Metal Stent Fabricated by Layer-by-Layer Assembly of Polylysine and Hyaluronic Acid-g-Poly(lactic-co-glycolic acid) Micelles Encapsulating Paclitaxel. Biomacromolecules, 2009, 10, 1532-1539.	5.4	101
23	Anti-inflammatory steroids without pituitary-adrenal suppression. Science, 1982, 215, 989-991.	12.6	100
24	Tonsil-derived Mesenchymal Stem Cells Ameliorate CCl4â€“induced Liver Fibrosis in Mice via Autophagy Activation. Scientific Reports, 2015, 5, 8616.	3.3	97
25	Gold nanoparticle (AuNP)-based drug delivery and molecular imaging for biomedical applications. Archives of Pharmacal Research, 2014, 37, 53-59.	6.3	95
26	Intracellular Trafficking and Unpacking of siRNA/Quantum Dot-PEI Complexes Modified with and without Cell Penetrating Peptide: Confocal and Flow Cytometric FRET Analysis. Bioconjugate Chemistry, 2010, 21, 289-295.	3.6	91
27	Dual delivery of biological therapeutics for multimodal and synergistic cancer therapies. Advanced Drug Delivery Reviews, 2016, 98, 113-133.	13.7	85
28	Tailored lay health worker intervention improves breast cancer screening outcomes in non-adherent Korean-American women. Health Education Research, 2008, 24, 318-329.	1.9	82
29	Gold-based hybrid nanomaterials for biosensing and molecular diagnostic applications. Biosensors and Bioelectronics, 2016, 80, 543-559.	10.1	80
30	Shell Cross-Linked Hyaluronic Acid/Polylysine Layer-by-Layer Polyelectrolyte Microcapsules Prepared by Removal of Reducible Hyaluronic Acid Microgel Cores. Biomacromolecules, 2007, 8, 3705-3711.	5.4	77
31	Co-delivery of VEGF and Bcl-2 dual-targeted siRNA polymer using a single nanoparticle for synergistic anti-cancer effects in vivo. Journal of Controlled Release, 2015, 220, 631-641.	9.9	76
32	In vivo delivery of CRISPR-Cas9 using lipid nanoparticles enables antithrombin gene editing for sustainable hemophilia A and B therapy. Science Advances, 2022, 8, eabj6901.	10.3	75
33	pH/redox/photo responsive polymeric micelle via boronate ester and disulfide bonds with spiropyran-based photochromic polymer for cell imaging and anticancer drug delivery. European Polymer Journal, 2014, 57, 1-10.	5.4	68
34	Effects of tumor microenvironments on targeted delivery of glycol chitosan nanoparticles. Journal of Controlled Release, 2017, 267, 223-231.	9.9	60
35	Dendrimeric siRNA for Efficient Gene Silencing. Angewandte Chemie - International Edition, 2015, 54, 6740-6744.	13.8	59
36	3D Culture of Tonsilâ€Derived Mesenchymal Stem Cells in Poly(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 67 Td (glycol)â€Poly(<sc Healthcare Materials, 2014, 3, 1782-1791.	7.6	56

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37	Photoâ€crosslinkable, biomimetic, and thermoâ€sensitive pluronic grafted hyaluronic acid copolymers for injectable delivery of chondrocytes. Journal of Biomedical Materials Research - Part A, 2009, 88A, 797-806.	4.0	55
38	Bioorthogonal Copper Free Click Chemistry for Labeling and Tracking of Chondrocytes In Vivo. Bioconjugate Chemistry, 2016, 27, 927-936.	3.6	53
39	Synergistic Nanozymetic Activity of Hybrid Gold Bipyramidâ€“Molybdenum Disulfide Core@Shell Nanostructures for Two-Photon Imaging and Anticancer Therapy. ACS Applied Materials & Interfaces, 2018, 10, 42068-42076.	8.0	53
40	DhITACT: DNA Hydrogel Formation by Isothermal Amplification of Complementary Target in Fluidic Channels. Advanced Materials, 2015, 27, 3513-3517.	21.0	48
41	Biofunctional porous anodized titanium implants for enhanced bone regeneration. Journal of Biomedical Materials Research - Part A, 2014, 102, 3639-3648.	4.0	43
42	Artificial Chemical Reporter Targeting Strategy Using Bioorthogonal Click Reaction for Improving Active-Targeting Efficiency of Tumor. Molecular Pharmaceutics, 2017, 14, 1558-1570.	4.6	42
43	Adjuvant incorporated lipid nanoparticles for enhanced mRNA-mediated cancer immunotherapy. Biomaterials Science, 2020, 8, 1101-1105.	5.4	42
44	A Highly Sensitive Molecular Detection Platform for Robust and Facile Diagnosis of Middle East Respiratory Syndrome (MERS) Corona Virus. Advanced Healthcare Materials, 2016, 5, 2168-2173.	7.6	40
45	Bio-inspired catechol chemistry: a new way to develop a re-moldable and injectable coacervate hydrogel. Chemical Communications, 2012, 48, 11895.	4.1	39
46	Nanoparticle-Based Combination Therapy for Cancer Treatment. Current Pharmaceutical Design, 2015, 21, 3158-3166.	1.9	39
47	In vitro and in vivo behavior of DNA tetrahedrons as tumor-targeting nanocarriers for doxorubicin delivery. Colloids and Surfaces B: Biointerfaces, 2017, 157, 424-431.	5.0	38
48	Self-assembled DNA nanostructures prepared by rolling circle amplification for the delivery of siRNA conjugates. Chemical Communications, 2014, 50, 13049-13051.	4.1	37
49	The impaired redox balance in peroxisomes of catalase knockout mice accelerates nonalcoholic fatty liver disease through endoplasmic reticulum stress. Free Radical Biology and Medicine, 2020, 148, 22-32.	2.9	34
50	Transmission of Mycobacterium tuberculosis among high school students in Korea. International Journal of Tuberculosis and Lung Disease, 2001, 5, 824-30.	1.2	34
51	Exclusive mutations related to isoniazid and ethionamide resistance among Mycobacterium tuberculosis isolates from Korea. International Journal of Tuberculosis and Lung Disease, 2000, 4, 441-7.	1.2	32
52	Optical imaging of intracellular reactive oxygen species for the assessment of the cytotoxicity of nanoparticles. Biomaterials, 2011, 32, 2556-2565.	11.4	30
53	Technological development of structural DNA/RNA-based RNAi systems and their applications. Advanced Drug Delivery Reviews, 2016, 104, 29-43.	13.7	30
54	Non-invasive stem cell tracking in hindlimb ischemia animal model using bio-orthogonal copper-free click chemistry. Biochemical and Biophysical Research Communications, 2016, 479, 779-786.	2.1	29

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55	Controlling mechanical properties of bio-inspired hydrogels by modulating nano-scale, inter-polymeric junctions. Beilstein Journal of Nanotechnology, 2014, 5, 887-894.	2.8	27
56	mRNA vaccines: the most recent clinical applications of synthetic mRNA. Archives of Pharmacal Research, 2022, 45, 245-262.	6.3	27
57	Perspectives On: Local and Sustained Delivery of Angiogenic Growth Factors. Journal of Bioactive and Compatible Polymers, 2007, 22, 89-114.	2.1	25
58	Surface PEGylation via Native Chemical Ligation. Bioconjugate Chemistry, 2011, 22, 4-8.	3.6	23
59	The cutting-edge technologies of siRNA delivery and their application in clinical trials. Archives of Pharmacal Research, 2018, 41, 867-874.	6.3	22
60	Efficient delivery of siRNAs by a photothermal approach using plant flavonoid-inspired gold nanoshells. Chemical Communications, 2014, 50, 13388-13390.	4.1	21
61	Non-tuberculous mycobacterial diseases presenting as solitary pulmonary nodules. International Journal of Tuberculosis and Lung Disease, 2010, 14, 1635-40.	1.2	21
62	Enzymatic Synthesis of Self-assembled Dicer Substrate RNA Nanostructures for Programmable Gene Silencing. Nano Letters, 2018, 18, 4279-4284.	9.1	20
63	Synthesis and in vitro cytotoxicity of 3-substituted-1,8-diazaanthraquinones produced by Lewis-acid catalyzed hetero diels-alder reaction. Bioorganic and Medicinal Chemistry Letters, 1998, 8, 2991-2994.	2.2	19
64	MMP-2-responsive fluorescent nanoprobes for enhanced selectivity of tumor cell uptake and imaging. Biomaterials Science, 2018, 6, 2619-2626.	5.4	19
65	Plasmon-Triggered Upconversion Emissions and Hot Carrier Injection for Combinatorial Photothermal and Photodynamic Cancer Therapy. ACS Applied Materials & Interfaces, 2021, 13, 58422-58433.	8.0	19
66	Nanobiomaterials for pharmaceutical and medical applications. Archives of Pharmacal Research, 2014, 37, 1-3.	6.3	18
67	Oligonucleotide-based biosensors for in vitro diagnostics and environmental hazard detection. Analytical and Bioanalytical Chemistry, 2016, 408, 2383-2406.	3.7	18
68	Hydro-nanofibrous mesh deep cell penetration: a strategy based on peeling of electrospun coaxial nanofibers. Nanoscale, 2018, 10, 6051-6059.	5.6	18
69	Cellular uptake mechanism and comparative in vitro cytotoxicity studies of monomeric LMWP-siRNA conjugate. Journal of Industrial and Engineering Chemistry, 2018, 63, 103-111.	5.8	18
70	Development of mRNA vaccines and their prophylactic and therapeutic applications. Nano Research, 2018, 11, 5173-5192.	10.4	18
71	Enhanced Chemical Reactivity of Graphene by Fermi Level Modulation. Chemistry of Materials, 2018, 30, 5602-5609.	6.7	18
72	Tonsil-derived stem cells as a new source of adult stem cells. World Journal of Stem Cells, 2019, 11, 506-518.	2.8	18

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73	Conventional and real-time PCR targeting 16S ribosomal RNA for the detection of <I>Mycobacterium tuberculosis</I> complex. International Journal of Tuberculosis and Lung Disease, 2015, 19, 1102-1108.	1.2	17
74	Mechanochemical synthesis of fluorescent carbon dots from cellulose powders. Nanotechnology, 2018, 29, 165604.	2.6	16
75	Lamb wave-based molecular diagnosis using DNA hydrogel formation by rolling circle amplification (RCA) process. Biosensors and Bioelectronics, 2019, 142, 111496.	10.1	16
76	A dynamic DNA nanostructure with switchable and size-selective molecular recognition properties. Nanoscale, 2019, 11, 2501-2509.	5.6	16
77	Bioreducible Cationic Poly(amido amine)s for Enhanced Gene Delivery and Osteogenic Differentiation of Tonsil-Derived Mesenchymal Stem Cells. Journal of Biomedical Nanotechnology, 2016, 12, 1023-1034.	1.1	15
78	Catalytic degradation of phenols by recyclable CVD graphene films. Nanoscale, 2018, 10, 5840-5844.	5.6	15
79	Synthesis andin vitro evaluation of 4-substituted-1-azaanthraquinones. Archives of Pharmacal Research, 1998, 21, 73-75.	6.3	13
80	Tunable and selective detection of cancer cells using a betainized zwitterionic polymer with BODIPY and graphene oxide. New Journal of Chemistry, 2014, 38, 2225-2228.	2.8	12
81	Combined hybrid structure of siRNA tailed IVT mRNA (ChriST mRNA) for enhancing DC maturation and subsequent anticancer T cell immunity. Journal of Controlled Release, 2020, 327, 225-234.	9.9	11
82	A fibrin-supported myocardial organ culture for isolation of cardiac stem cells via the recapitulation of cardiac homeostasis. Biomaterials, 2015, 48, 66-83.	11.4	10
83	PEGylation and HAylation via catechol: Î±-Amine-specific reaction at N-terminus of peptides and proteins. Acta Biomaterialia, 2016, 43, 50-60.	8.3	10
84	Silverâ€Mediated exoâ€Selective Tandem Desilylative Bromination/Oxycyclization of Silylâ€Protected Alkynes: Synthesis of 2â€Bromomethyleneâ€Tetrahydrofuran. Chemistry - an Asian Journal, 2011, 6, 1943-1947.	3.3	9
85	Enhanced intracellular delivery of macromolecules by melittin derivatives mediated cellular uptake. Journal of Industrial and Engineering Chemistry, 2018, 58, 290-295.	5.8	9
86	Nanoformulated Singleâ€Stranded RNAâ€Based Adjuvant with a Coordinative Amphiphile as an Effective Stabilizer: Inducing Humoral Immune Response by Activation of Antigenâ€Presenting Cells. Angewandte Chemie - International Edition, 2020, 59, 11540-11549.	13.8	9
87	Aptamer-incorporated DNA Holliday junction for the targeted delivery of siRNA. Journal of Industrial and Engineering Chemistry, 2017, 56, 55-61.	5.8	8
88	Induced myogenic commitment of human chondrocytes via non-viral delivery of minicircle DNA. Journal of Controlled Release, 2015, 200, 212-221.	9.9	7
89	The core composition of DNA block copolymer micelles dictates DNA hybridization properties, nuclease stabilities, and cellular uptake efficiencies. Nanoscale, 2021, 13, 13758-13763.	5.6	7
90	Highly selective detection of single nucleotide polymorphism (SNP) using a dumbbell DNA probe with a gap-filling approach. Journal of Industrial and Engineering Chemistry, 2020, 88, 78-83.	5.8	6

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91	Anisotropic Plasmonic Gold Nanorodâ€“Indocyanine Green@Reduced Graphene Oxideâ€“Doxorubicin Nanohybrids for Image-Guided Enhanced Tumor Theranostics. ACS Omega, 2022, 7, 15186-15199.	3.5	6
92	Synthesis andIn vitro cytotoxicity of 4-alkyl- or 4-arylaminosub-stituted cyclopenta[c]quinoline derivatives. Archives of Pharmacal Research, 2001, 24, 385-389.	6.3	5
93	Osteogenic priming of mesenchymal stem cells by chondrocyte-conditioned factors and mineralized matrix. Cell and Tissue Research, 2015, 362, 115-126.	2.9	5
94	Multicistronic IVT mRNA for simultaneous expression of multiple fluorescent proteins. Journal of Industrial and Engineering Chemistry, 2019, 80, 770-777.	5.8	5
95	Synthesis andin vitro cytotoxicity of 2-alkylaminosubstituted quinoline derivatives. Archives of Pharmacal Research, 2000, 23, 450-454.	6.3	4
96	Capillary Tube Based Molecular Diagnostic Test for Naked Eye Detection of Antibiotic Resistant Bacteria. Advanced Materials Technologies, 2019, 4, 1800375.	5.8	4
97	Synthesis andin vitro cytotoxicity of 1-azaanthraquinone-3-carboxamides. Archives of Pharmacal Research, 1999, 22, 380-383.	6.3	3
98	Design Principles in Biomaterials and Scaffolds. , 2008, , 580-593.		3
99	Cathepsin B Imaging to Predict Quality of Engineered Cartilage. Macromolecular Bioscience, 2015, 15, 1224-1232.	4.1	3
100	Insulin Induces Phosphorylation of Serine Residues of Translationally Controlled Tumor Protein in 293T Cells. International Journal of Molecular Sciences, 2015, 16, 7565-7576.	4.1	3
101	Membrane Fusion through the Generation of Triazole Ceramide via Click Chemistry at the Membrane Surface. Asian Journal of Organic Chemistry, 2019, 8, 1713-1717.	2.7	3
102	Protein-RNA interaction guided chemical modification of Dicer substrate RNA nanostructures for superior in vivo gene silencing. Journal of Controlled Release, 2022, 343, 57-65.	9.9	3
103	Synthesis andin vitro cytotoxicity of 3- or 4-dialkylaminomethyl-1-azaanthraquinones. Archives of Pharmacal Research, 1998, 21, 749-752.	6.3	2
104	Microfluidics-Based Pathogen Detection: A Highly Sensitive Molecular Detection Platform for Robust and Facile Diagnosis of Middle East Respiratory Syndrome (MERS) Corona Virus (Adv. Healthcare) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	7.6	2
105	Design Principles in Biomaterials and Scaffolds. , 2011, , 543-556.		1
106	Economic Evaluation of Catheter-Based Renal Denervation for Patients with Resistant Hypertension in Korea. Value in Health, 2014, 17, A762.	0.3	1
107	DNA Hydrogels: DhITACT: DNA Hydrogel Formation by Isothermal Amplification of Complementary Target in Fluidic Channels (Adv. Mater. 23/2015). Advanced Materials, 2015, 27, 3466-3466.	21.0	0
108	Photocatalytic Degradation of Phenol Using Chemical Vapor Desposition Graphene Column. Catalysts, 2020, 10, 1251.	3.5	0