

# Jae-Seung Lee

## List of Publications by Year in descending order

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84  
papers

6,405  
citations

159358

30  
h-index

62479

80  
g-index

88  
all docs

88  
docs citations

88  
times ranked

8533  
citing authors

#	ARTICLE	IF	CITATIONS
1	Colorimetric Detection of Mercuric Ion (Hg <sup>2+</sup> ) in Aqueous Media using DNA-Functionalized Gold Nanoparticles. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 4093-4096.	7.2	1,203
2	A DNA <sup>+</sup> Gold Nanoparticle-Based Colorimetric Competition Assay for the Detection of Cysteine. <i>Nano Letters</i> , 2008, 8, 529-533.	4.5	459
3	Silver Nanoparticle <sup>+</sup> Oligonucleotide Conjugates Based on DNA with Triple Cyclic Disulfide Moieties. <i>Nano Letters</i> , 2007, 7, 2112-2115.	4.5	457
4	Multiplexed Detection of Protein Cancer Markers with Biobarcode Nanoparticle Probes. <i>Journal of the American Chemical Society</i> , 2006, 128, 8378-8379.	6.6	409
5	Nanoparticle-based bio-barcode assay redefines $\alpha$ -fetoprotein (AFP) and biochemical recurrence after radical prostatectomy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 18437-18442.	3.3	378
6	Synthesis of Mesoporous Silicas of Controlled Pore Wall Thickness and Their Replication to Ordered Nanoporous Carbons with Various Pore Diameters. <i>Journal of the American Chemical Society</i> , 2002, 124, 1156-1157.	6.6	349
7	Colorimetric Nitrite and Nitrate Detection with Gold Nanoparticle Probes and Kinetic End Points. <i>Journal of the American Chemical Society</i> , 2009, 131, 6362-6363.	6.6	325
8	Three-Layer Composite Magnetic Nanoparticle Probes for DNA. <i>Journal of the American Chemical Society</i> , 2005, 127, 15362-15363.	6.6	289
9	Gold, Poly( $\beta$ -amino ester) Nanoparticles for Small Interfering RNA Delivery. <i>Nano Letters</i> , 2009, 9, 2402-2406.	4.5	258
10	Multiplexed DNA Detection with Biobarcode Nanoparticle Probes. <i>Angewandte Chemie - International Edition</i> , 2006, 45, 3303-3306.	7.2	249
11	Chip-Based Scanometric Detection of Mercuric Ion Using DNA-Functionalized Gold Nanoparticles. <i>Analytical Chemistry</i> , 2008, 80, 6805-6808.	3.2	206
12	Imaging deep within a scattering medium using collective accumulation of single-scattered waves. <i>Nature Photonics</i> , 2015, 9, 253-258.	15.6	147
13	DNA-Induced Size-Selective Separation of Mixtures of Gold Nanoparticles. <i>Journal of the American Chemical Society</i> , 2006, 128, 8899-8903.	6.6	96
14	Recent advances in optical detection of dopamine using nanomaterials. <i>Mikrochimica Acta</i> , 2017, 184, 1239-1266.	2.5	90
15	Structures of DNA-Linked Nanoparticle Aggregates. <i>Journal of Physical Chemistry B</i> , 2006, 110, 12673-12681.	1.2	87
16	Synthesis and Thermally Reversible Assembly of DNA <sup>+</sup> Gold Nanoparticle Cluster Conjugates. <i>Nano Letters</i> , 2009, 9, 4564-4569.	4.5	86
17	Designed Hybridization Properties of DNA <sup>+</sup> Gold Nanoparticle Conjugates for the Ultrasensitive Detection of a Single-Base Mutation in the Breast Cancer Gene <i>BRCA1</i> . <i>Analytical Chemistry</i> , 2011, 83, 7364-7370.	3.2	73
18	Synthesis and Thermodynamically Controlled Anisotropic Assembly of DNA <sup>+</sup> Silver Nanoprism Conjugates for Diagnostic Applications. <i>Chemistry of Materials</i> , 2010, 22, 6684-6691.	3.2	50

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19	Deep eutectic solvents as versatile media for the synthesis of noble metal nanomaterials. <i>Nanotechnology Reviews</i> , 2017, 6, 271-278.	2.6	44
20	Recent advances in chemical functionalization of nanoparticles with biomolecules for analytical applications. <i>Analytical and Bioanalytical Chemistry</i> , 2015, 407, 8627-8645.	1.9	42
21	Thermodynamically Controlled Separation of Polyvalent 2-nm Gold Nanoparticle-Oligonucleotide Conjugates. <i>Journal of the American Chemical Society</i> , 2008, 130, 5430-5431.	6.6	39
22	Combinatorial Polymer Library Approach for the Synthesis of Silver Nanoplates. <i>Chemistry of Materials</i> , 2012, 24, 4424-4433.	3.2	36
23	A microfluidic detection system based upon a surface immobilized biobarcode assay. <i>Biosensors and Bioelectronics</i> , 2009, 24, 2397-2403.	5.3	35
24	Solvent-free synthesis of Cu <sub>2</sub> ZnSnS <sub>4</sub> nanocrystals: a facile, green, up-scalable route for low cost photovoltaic cells. <i>Nanoscale</i> , 2014, 6, 11703-11711.	2.8	34
25	Salt concentration-induced dehybridisation of DNA-gold nanoparticle conjugate assemblies for diagnostic applications. <i>Chemical Communications</i> , 2010, 46, 6382.	2.2	33
26	Masking Nanoparticle Surfaces for Sensitive and Selective Colorimetric Detection of Proteins. <i>Analytical Chemistry</i> , 2013, 85, 10542-10548.	3.2	33
27	One-pot photochemical synthesis of silver nanodisks using a conventional metal-halide lamp. <i>Materials Chemistry and Physics</i> , 2015, 149-150, 678-685.	2.0	32
28	Shape-Dependent Reversible Assembly Properties of Polyvalent DNA-Silver Nanocube Conjugates. <i>Journal of Physical Chemistry C</i> , 2012, 116, 2278-2284.	1.5	31
29	Staring at protein-surfactant interactions: Fundamental approaches and comparative evaluation of their combinations - A review. <i>Analytica Chimica Acta</i> , 2019, 1063, 18-39.	2.6	31
30	Real-time phase-contrast imaging of photothermal treatment of head and neck squamous cell carcinoma: an <i>in vitro</i> study of macrophages as a vector for the delivery of gold nanoshells. <i>Journal of Biomedical Optics</i> , 2012, 17, 128003.	1.4	28
31	Highly crystalline Fe <sub>2</sub> GeS <sub>4</sub> nanocrystals: green synthesis and their structural and optical characterization. <i>Journal of Materials Chemistry A</i> , 2015, 3, 2265-2270.	5.2	26
32	Insights into Characterization Methods and Biomedical Applications of Nanoparticle-Protein Corona. <i>Materials</i> , 2020, 13, 3093.	1.3	26
33	Hierarchically branched silver nanostructures (HBAgNSs) as surface plasmon regulating platforms for multiplexed colorimetric DNA detection. <i>Journal of Materials Chemistry</i> , 2012, 22, 20223.	6.7	25
34	Library Approach for Reliable Synthesis and Properties of DNA-Gold Nanorod Conjugates. <i>Analytical Chemistry</i> , 2013, 85, 6580-6586.	3.2	25
35	In vivo photothermal treatment by the peritumoral injection of macrophages loaded with gold nanoshells. <i>Biomedical Optics Express</i> , 2016, 7, 185.	1.5	25
36	Wrapping AgCl Nanostructures with Trimetallic Nanomeshes for Plasmon-Enhanced Catalysis and in Situ SERS Monitoring of Chemical Reactions. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 2842-2853.	4.0	25

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37	Synthesis of Length-Controlled Polyvalent Silver Nanowireâ€DNA Conjugates for Sensitive and Selective Detection of DNA Targets. <i>Langmuir</i> , 2012, 28, 828-832.	1.6	24
38	Synthesis of Gold Microstructures with Surface Nanoroughness Using a Deep Eutectic Solvent for Catalytic and Diagnostic Applications. <i>Journal of Nanoscience and Nanotechnology</i> , 2014, 14, 3753-3757.	0.9	21
39	Synthesis of Gold Nanoparticleâ€Embedded Silver Cubic Mesh Nanostructures Using AgCl Nanocubes for Plasmonic Photocatalysis. <i>Small</i> , 2017, 13, 1701751.	5.2	19
40	Colorimetric detection of acetylcholine with plasmonic nanomaterials signaling. <i>Analytical and Bioanalytical Chemistry</i> , 2014, 406, 7591-7600.	1.9	18
41	Thiol-Ligand-Catalyzed Quenching and Etching in Mixtures of Colloidal Quantum Dots and Silver Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2017, 121, 28566-28575.	1.5	18
42	Influences of Extended Selenization on Cu <sub>2</sub> ZnSnSe <sub>4</sub> Solar Cells Prepared from Quaternary Nanocrystal Ink. <i>Journal of Physical Chemistry C</i> , 2014, 118, 27657-27663.	1.5	16
43	Interfacial interactions of SERS-active noble metal nanostructures with functional ligands for diagnostic analysis of protein cancer markers. <i>Mikrochimica Acta</i> , 2021, 188, 164.	2.5	16
44	Multiplexed DNA Detection with DNA-Functionalized Silver and Silver/Gold Nanoparticle Superstructure Probes. <i>Bulletin of the Korean Chemical Society</i> , 2012, 33, 221-226.	1.0	13
45	Deep tissue space-gated microscopy via acousto-optic interaction. <i>Nature Communications</i> , 2020, 11, 710.	5.8	13
46	In-Plate and On-Plate Structural Control of Ultra-Stable Gold/Silver Bimetallic Nanoplates as Redox Catalysts, Nanobuilding Blocks, and Single-Nanoparticle Surface-Enhanced Raman Scattering Probes. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 27140-27150.	4.0	10
47	Effective and sustainable Cs <sup>+</sup> remediation via exchangeable sodium-ion sites in graphene oxide fibers. <i>Journal of Materials Chemistry A</i> , 2019, 7, 17754-17760.	5.2	9
48	Application of M1 macrophage as a live vector in delivering nanoparticles for in vivo photothermal treatment. <i>Journal of Advanced Research</i> , 2021, 31, 155-163.	4.4	9
49	Room-Temperature Colorimetric Detection of Coralyne Using DNA-Functionalized Nanoparticle Probes. <i>Bulletin of the Korean Chemical Society</i> , 2012, 33, 329-332.	1.0	9
50	Assembly-Based Titration for the Determination of Monodisperse Plasmonic Nanoparticle Concentrations Using DNA. <i>Analytical Chemistry</i> , 2011, 83, 4989-4995.	3.2	8
51	In vivo photothermal treatment with real-time monitoring by optical fiber-needle array. <i>Biomedical Optics Express</i> , 2017, 8, 3482.	1.5	8
52	Dynamic metallization of spherical DNA via conformational transition into gold nanostructures with controlled sizes and shapes. <i>Journal of Colloid and Interface Science</i> , 2021, 594, 160-172.	5.0	8
53	Functionalized nanoparticle probes for protein detection. <i>Electronic Materials Letters</i> , 2015, 11, 336-345.	1.0	7
54	A foolproof method for phase transfer of metal nanoparticles via centrifugation. <i>Chemical Communications</i> , 2016, 52, 1625-1628.	2.2	7

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55	Recent developments in affinity-based selection of aptamers for binding disease-related protein targets. <i>Chemical Papers</i> , 2019, 73, 2637-2653.	1.0	7
56	Aqueous synthesis of highly monodisperse sub-100 nm AgCl nanospheres/cubes and their plasmonic nanomesh replicas as visible-light photocatalysts and single SERS probes. <i>Nanotechnology</i> , 2019, 30, 295604.	1.3	7
57	Offering English-Mediated Chemistry Classes in South Korea: A Note on This Nationwide Experiment. <i>Journal of Chemical Education</i> , 2010, 87, 470-471.	1.1	5
58	Controlled structural evolution of large silver nanoparticles and their DNA-Mediated bimetallic reversible assemblies. <i>Materials Letters</i> , 2012, 68, 118-121.	1.3	5
59	Divalent metal ion-mediated assembly of spherical nucleic acids: the case study of Cu <sup>2+</sup> . <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 30292-30299.	1.3	5
60	Synthesis of mesoporous carbons with various pore diameters via control of pore wall thickness of mesoporous silicas. <i>Studies in Surface Science and Catalysis</i> , 2003, , 33-36.	1.5	4
61	Seed-mediated synthesis and structural analysis of hierarchical silver microparticles (HiAgMPs) with highly nanotextured surfaces. <i>Materials Research Bulletin</i> , 2013, 48, 2333-2339.	2.7	4
62	Multiplexed Detection of Oligonucleotides with Biobarcode Gold Nanoparticle Probes. <i>Methods in Molecular Biology</i> , 2011, 726, 17-31.	0.4	4
63	Roles of zwitterionic charges in polymers on synthesis of Ag seeds with anisotropic growth properties. <i>Journal of Industrial and Engineering Chemistry</i> , 2020, 89, 166-174.	2.9	4
64	Silver nanomaterials for the detection of chemical and biological targets. <i>Nanotechnology Reviews</i> , 2014, 3, .	2.6	3
65	Controlling Chemical Equilibrium for Efficient Nanoparticle Conjugation and Release of DNA. <i>Bulletin of the Korean Chemical Society</i> , 2015, 36, 2962-2965.	1.0	3
66	Functionality of Nonfunctional Diluent Ligands within Bicomponent Layers on Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2017, 121, 13906-13915.	1.5	3
67	Ultrasensitive colorimetric detection of NF- $\kappa$ B protein at picomolar levels using target-induced passivation of nanoparticles. <i>Analytical and Bioanalytical Chemistry</i> , 2018, 410, 1397-1403.	1.9	3
68	Continuous Composition Spread and Electrochemical Studies of Low Cobalt Content Li(Ni,Mn,Co)O <sub>2</sub> Cathode Materials. <i>Coatings</i> , 2019, 9, 366.	1.2	3
69	Structurally and Compositionally Tunable Absorption Properties of AgCl@AgAu Nanocatalysts for Plasmonic Photocatalytic Degradation of Environmental Pollutants. <i>Catalysts</i> , 2020, 10, 405.	1.6	3
70	Kinetic analysis of RNA interference for lamin A/C in HeLa cells. <i>Acta Biochimica Et Biophysica Sinica</i> , 2010, 42, 623-627.	0.9	2
71	Pyridine: a Denaturant or Stabilizer of Spherical Nucleic Acids?. <i>Analytical Chemistry</i> , 2017, 89, 4581-4586.	3.2	2
72	One-Pot Photochemical Synthesis of Gold Nanoplates Using Nonionic Diblock Copolymers and their Surface Functionalization. <i>Bulletin of the Korean Chemical Society</i> , 2018, 39, 1165-1170.	1.0	2

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73	One-Pot Synthesis of a Zwitterionic Small Molecule Bearing Disulfide Moiety for Antibiofouling Macro- and Nanoscale Gold Surfaces. <i>Langmuir</i> , 2019, 35, 1768-1777.	1.6	2
74	Synthesis of Large Bumpy Silver Nanostructures with Controlled Sizes and Shapes for Catalytic Applications. <i>Bulletin of the Korean Chemical Society</i> , 2014, 35, 1001-1004.	1.0	2
75	Silver halide-induced catalyst poisoning of Ag-M bimetallic nanoparticles (biNPs) and their chemical regeneration. <i>Journal of Alloys and Compounds</i> , 2022, 899, 163260.	2.8	2
76	Solidâ€“Solutionâ€“Solid (SSS) phase transitions for Gram-Scale and High-Throughput synthesis of noble metal nanoparticles in deep eutectic solvents. <i>Journal of Industrial and Engineering Chemistry</i> , 2022, 112, 182-192.	2.9	2
77	Oneâ€“Pot Synthesis of Highly Monodisperse Poly(lacticâ€“glycolic Acid) Particles with Controlled Porosity as Efficient Drug Delivery Vehicles. <i>Bulletin of the Korean Chemical Society</i> , 2019, 40, 851-856.	1.0	1
78	Assembling Gold Nanocubes Into a Nanoporous Gold Material. <i>Bulletin of the Korean Chemical Society</i> , 2012, 33, 1777-1780.	1.0	1
79	Tailoring the Optical Properties of Silver Nanomaterials for Diagnostic Applications. , 2013, , 287-309.		0
80	Moving from convergence to divergence: the future of nanotechnology. <i>Nanotechnology Reviews</i> , 2014, 3, .	2.6	0
81	Deep-tissue imaging with collective accumulation of single scattering microscopy. , 2015, , .		0
82	Rapid One-Step Plasma Test for the Electrochemical and Colorimetric Detection of a Universal Cancer Biomarker. <i>Clinical Chemistry</i> , 2019, 65, 824-826.	1.5	0
83	Synthesis of Uniformly Sized Bi <sub>0.5</sub> Sb <sub>1.5</sub> Te <sub>3.0</sub> Nanoparticles via Mechanochemical Process and Wet-Milling for Reduced Thermal Conductivity. <i>Materials</i> , 2021, 14, 536.	1.3	0
84	H <sub>2</sub> O <sub>2</sub> -Assisted One-pot Synthesis of Silver Nanoplates Using Polymeric Materials. <i>Bulletin of the Korean Chemical Society</i> , 2013, 34, 3537-3538.	1.0	0