Jung Heon Lee

List of Publications by Year in descending order

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90 papers	4,965 citations	172457 29 h-index	91884 69 g-index
93 all docs	93 docs citations	93 times ranked	7884 citing authors

#	Article	IF	Citations
1	Soft, smart contact lenses with integrations of wireless circuits, glucose sensors, and displays. Science Advances, 2018, 4, eaap9841.	10.3	465
2	Highly Sensitive and Selective Colorimetric Sensors for Uranyl (UO₂²⁺): Development and Comparison of Labeled and Label-Free DNAzyme-Gold Nanoparticle Systems. Journal of the American Chemical Society, 2008, 130, 14217-14226.	13.7	441
3	Labelâ€Free Colorimetric Detection of Lead Ions with a Nanomolar Detection Limit and Tunable Dynamic Range by using Gold Nanoparticles and DNAzyme. Advanced Materials, 2008, 20, 3263-3267.	21.0	426
4	Molecular diagnostic and drug delivery agents based on aptamer-nanomaterial conjugates. Advanced Drug Delivery Reviews, 2010, 62, 592-605.	13.7	268
5	Quantum Dot Encoding of Aptamer-Linked Nanostructures for One-Pot Simultaneous Detection of Multiple Analytes. Analytical Chemistry, 2007, 79, 4120-4125.	6.5	253
6	Highly sensitive â€œturn-onâ€•fluorescent sensor for Hg2+ in aqueous solution based on structure-switching DNA. Chemical Communications, 2008, , 6005.	4.1	253
7	Direct Observation of Nanoparticleâ€“Cancer Cell Nucleus Interactions. ACS Nano, 2012, 6, 3318-3326.	14.6	251
8	Nanoscale Patterns of Oligonucleotides Formed by Electrohydrodynamic Jet Printing with Applications in Biosensing and Nanomaterials Assembly. Nano Letters, 2008, 8, 4210-4216.	9.1	205
9	Transparent, Lowâ€Power Pressure Sensor Matrix Based on Coplanarâ€Gate Graphene Transistors. Advanced Materials, 2014, 26, 4735-4740.	21.0	185
10	Retarding charge recombination in perovskite solar cells using ultrathin MgO-coated TiO₂ nanoparticulate films. Journal of Materials Chemistry A, 2015, 3, 9160-9164.	10.3	167
11	Smart â€œTurnâ€onâ€•Magnetic Resonance Contrast Agents Based on Aptamerâ€Functionalized Superparamagnetic Iron Oxide Nanoparticles. ChemBioChem, 2007, 8, 1675-1678.	2.6	135
12	Flexible and Transparent Metallic Grid Electrodes Prepared by Evaporative Assembly. ACS Applied Materials & Interfaces, 2014, 6, 12380-12387.	8.0	128
13	Conductive and Stretchable Adhesive Electronics with Miniaturized Octopusâ€Like Suckers against Dry/Wet Skin for Biosignal Monitoring. Advanced Functional Materials, 2018, 28, 1805224.	14.9	111
14	Siteâ€Specific Control of Distances between Gold Nanoparticles Using Phosphorothioate Anchors on DNA and a Short Bifunctional Molecular Fastener. Angewandte Chemie - International Edition, 2007, 46, 9006-9010.	13.8	102
15	Statistical Characterization of the Morphologies of Nanoparticles through Machine Learning Based Electron Microscopy Image Analysis. ACS Nano, 2020, 14, 17125-17133.	14.6	89
16	Reverse Micelle Synthesis of Colloidal Nickelâ€“Manganese Layered Double Hydroxide Nanosheets and Their Pseudocapacitive Properties. Chemistry - A European Journal, 2014, 20, 14880-14884.	3.3	75
17	A Biodegradation Study of SBA-15 Microparticles in Simulated Body Fluid and in Vivo. Langmuir, 2015, 31, 6457-6462.	3.5	69
18	Gold nanostar-mediated neural activity control using plasmonic photothermal effects. Biomaterials, 2018, 153, 59-69.	11.4	69

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19	Citric acid mediated green synthesis of copper nanoparticles using cinnamon bark extract and its multifaceted applications. Journal of Cleaner Production, 2021, 292, 125974.	9.3	67
20	Physicochemical characterization of porcine bone-derived grafting material and comparison with bovine xenografts for dental applications. Journal of Periodontal and Implant Science, 2017, 47, 388.	2.0	51
21	Hydration of r.f. magnetron sputtered MgO thin films for a protective layer in AC plasma display panel. Thin Solid Films, 2003, 435, 95-101.	1.8	49
22	Controlled Alignment of Multiple Proteins and Nanoparticles with Nanometer Resolution via Backbone-Modified Phosphorothioate DNA and Bifunctional Linkers. Journal of the American Chemical Society, 2010, 132, 8906-8908.	13.7	48
23	Rapid, Highâ€Resolution 3D Interference Printing of Multilevel Ultralong Nanochannel Arrays for Highâ€Throughput Nanofluidic Transport. Advanced Materials, 2015, 27, 8000-8006.	21.0	45
24	Aspartic Acid-Assisted Synthesis of Multifunctional Strontium-Substituted Hydroxyapatite Microspheres. Crystal Growth and Design, 2016, 16, 4318-4326.	3.0	45
25	Graphene-Graphene Oxide Floating Gate Transistor Memory. Small, 2015, 11, 311-318.	10.0	44
26	Size-controlled growth and antibacterial mechanism for Cu:C nanocomposite thin films. Physical Chemistry Chemical Physics, 2017, 19, 237-244.	2.8	39
27	Bioinspired Adenosine Triphosphate as an â€œAll-In-Oneâ€•Green Flame Retardant via Extremely Intumescent Char Formation. ACS Applied Materials & Interfaces, 2021, 13, 22935-22945.	8.0	37
28	ZnO@graphene oxide core@shell nanoparticles prepared via one-pot approach based on laser ablation in water. Applied Surface Science, 2020, 531, 147365.	6.1	33
29	The protection of MgO film against hydration by using Al2O3 capping layer deposited by magnetron sputtering method. Thin Solid Films, 2003, 435, 199-204.	1.8	30
30	Systematic Review and Meta-analysis of Pharmacist-Led Transitions of Care Services on the 30-Day All-Cause Readmission Rate of Patients with Congestive Heart Failure. Clinical Drug Investigation, 2019, 39, 703-712.	2.2	30
31	Ultrastable-Stealth Large Gold Nanoparticles with DNA Directed Biological Functionality. Langmuir, 2015, 31, 13773-13782.	3.5	29
32	Controlled Heterogeneous Nucleation for Synthesis of Uniform Mesoporous Silica-Coated Gold Nanorods with Tailorable Rotational Diffusion and 1 nm-Scale Size Tunability. Crystal Growth and Design, 2018, 18, 4731-4736.	3.0	27
33	Natural bone-mimicking nanopore-incorporated hydroxyapatite scaffolds for enhanced bone tissue regeneration. Biomaterials Research, 2022, 26, 7.	6.9	27
34	A significant enhancement of color transition from an onâ€“off type achromatic colorimetric nanosensor for highly sensitive multi-analyte detection with the naked eye. Nanoscale, 2016, 8, 18341-18351.	5.6	25
35	Single-Chain Atomic Crystals as Extracellular Matrix-Mimicking Material with Exceptional Biocompatibility and Bioactivity. Nano Letters, 2018, 18, 7619-7627.	9.1	24
36	Biologically Benign Multi-functional Mesoporous Silica Encapsulated Gold/Silver Nanorods for Anti-bacterial Applications by On-demand Release of Silver Ions. Biochip Journal, 2019, 13, 362-369.	4.9	24

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37	Polyol synthesis of silver nanostructures: Inducing the growth of nanowires by a heat-up process. Chemical Physics Letters, 2014, 602, 10-15.	2.6	23
38	Low temperature plasma processing for cell growth inspired carbon thin films fabrication. Archives of Biochemistry and Biophysics, 2016, 605, 41-48.	3.0	22
39	Systematic study of interdependent relationship on gold nanorod synthesis assisted by electron microscopy image analysis. Nanoscale, 2017, 9, 7114-7123.	5.6	22
40	Exceptional Mechanical Properties of Phase-Separation-Free Mo₃Se₃^{â€“}-Chain-Reinforced Hydrogel Prepared by Polymer Wrapping Process. Nano Letters, 2019, 19, 5717-5724.	9.1	22
41	Multifunctional Heterogeneous Carbon Nanotube Nanocomposites Assembled by DNAâ€Binding Peptide Anchors. Small, 2020, 16, e1905821.	10.0	22
42	Surfactant-free nanoparticleâ€“DNA complexes with ultrahigh stability against salt for environmental and biological sensing. Analyst, The, 2014, 139, 5936-5944.	3.5	20
43	Chemical effects of organo-silanized SiO2 nanofillers on epoxy adhesives. Journal of Industrial and Engineering Chemistry, 2017, 54, 184-189.	5.8	20
44	DNA Binding Peptide Directed Synthesis of Continuous DNA Nanowires for Analysis of Large DNA Molecules by Scanning Electron Microscope. Small, 2017, 13, 1601926.	10.0	20
45	Photocatalytic antibacterial study of N-doped TiO2 thin films synthesized by ICP assisted plasma sputtering method. Physica E: Low-Dimensional Systems and Nanostructures, 2019, 106, 187-193.	2.7	20
46	An Antibacterial Nanorobotic Approach for the Specific Targeting and Removal of Multiple Drugâ€Resistant Staphylococcus aureus. Small, 2021, 17, e2100257.	10.0	20
47	Tannic acid modified antifreezing gelatin organohydrogel for low modulus, high toughness, and sensitive flexible strain sensor. International Journal of Biological Macromolecules, 2022, 209, 1665-1675.	7.5	19
48	Achromaticâ€“chromatic colorimetric sensors for onâ€“off type detection of analytes. Analyst, The, 2014, 139, 6486-6493.	3.5	17
49	pn-Heterojunction Effects of Perylene Tetracarboxylic Diimide Derivatives on Pentacene Field-Effect Transistor. ACS Applied Materials & Interfaces, 2015, 7, 2025-2031.	8.0	17
50	Portable Au Nanoparticle-Based Colorimetric Sensor Strip for Rapid On-Site Detection of Cd2+ Ions in Potable Water. Biochip Journal, 2021, 15, 276-286.	4.9	17
51	Surface energy and wettability control in bio-inspired PEG like thin films. Materials and Design, 2016, 92, 405-413.	7.0	16
52	A new rigid planar low band gap PTTDPP-DT-DTT polymer for organic transistors and performance improvement through the use of a binary solvent system. Dyes and Pigments, 2016, 126, 138-146.	3.7	15
53	Facile large-scale synthesis of mesoporous silica nanoparticles at room temperature in a monophasic system with fine size control. Microporous and Mesoporous Materials, 2019, 288, 109595.	4.4	15
54	Hierarchical Surface Texturing of Hydroxyapatite Ceramics: Influence on the Adhesive Bonding Strength of Polymeric Polycaprolactone. Journal of Functional Biomaterials, 2020, 11, 73.	4.4	15

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55	A one-step colorimetric acidâ€“base titration sensor using a complementary color changing coordination system. Analyst, The, 2016, 141, 3890-3897.	3.5	14
56	Multifunctional Nanomaterial-alginate Drug Delivery and Imaging System for Cancer Therapy. Biochip Journal, 2019, 13, 236-242.	4.9	14
57	A Paperâ€Based Platform for Longâ€Term Deposition of Nanoparticles with Exceptional Redispersibility, Stability, and Functionality. Particle and Particle Systems Characterization, 2019, 36, 1800483.	2.3	14
58	From a precursor to an etchant: spontaneous inversion of the role of Au(<scp>iii</scp>) chloride for one-potÂsynthesis of smooth and spherical gold nanoparticles. Nanoscale Advances, 2019, 1, 2157-2161.	4.6	13
59	Formation Mechanism of Rutile TiO₂ Rods on Fluorine Doped Tin Oxide Glass. Journal of Nanoscience and Nanotechnology, 2014, 14, 8839-8844.	0.9	12
60	Molecular-Level Interactions between Engineered Materials and Cells. International Journal of Molecular Sciences, 2019, 20, 4142.	4.1	12
61	Nanoparticles as Next-Generation Tooth-Whitening Agents: Progress and Perspectives. ACS Nano, 2022, 16, 10042-10065.	14.6	12
62	Role of surface-electrical properties on the cell-viability of carbon thin films grown in nanodomain morphology. Journal Physics D: Applied Physics, 2016, 49, 264001.	2.8	10
63	Enhancement in the adhesion properties of polycarbonate surfaces through chemical functionalization with organosilicon coupling agents. Journal of Materials Science: Materials in Electronics, 2019, 30, 17773-17779.	2.2	10
64	The Effect of Î¶â€Potential and Hydrodynamic Size on Nanoparticle Interactions in Hydrogels. Particle and Particle Systems Characterization, 2019, 36, 1800292.	2.3	10
65	Reduction by water for eco-friendly, capping agent-free synthesis of ultrasmall platinum nanocrystals. Chemical Physics Letters, 2014, 595-596, 77-82.	2.6	9
66	Directed self-assembly of organic semiconductors via confined evaporative capillary flows for use in organic field-effect transistors. Organic Electronics, 2014, 15, 2322-2327.	2.6	9
67	Electrochemical Performances of Yttrium Doped Li₃V_{2â€“X}Y_X(PO₄)₃/C Cathode Material for Lithium Secondary Battery. Journal of Nanoscience and Nanotechnology, 2015, 15, 8042-8047.	0.9	9
68	A study on the bio-applicability of aqueous-dispersed van der Waals 1-D material Nb2Se9 using poloxamer. Scientific Reports, 2021, 11, 176.	3.3	8
69	Boron induced c-axis growth and ammonia sensing signatures of spray pyrolysis deposited ZnO thin films â€“ Relation between crystallinity and sensing. Thin Solid Films, 2022, 746, 139126.	1.8	8
70	Size-tunable and scalable synthesis of uniform copper nanocrystals. RSC Advances, 2015, 5, 2756-2761.	3.6	7
71	High-Throughput Characterization and In Situ Control of Three-Dimensional Orientations of Single Gold Nanorods Coated with Spherical Mesoporous Silica Shell. Journal of Physical Chemistry C, 2020, 124, 14279-14286.	3.1	7
72	Surface Polarity-Insensitive Organosilicasome-Based Clustering of Nanoparticles with Intragap Distance Tunability. Chemistry of Materials, 2021, 33, 5257-5267.	6.7	7

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73	Stability of a Gold Nanoparticle-DNA System in Seawater. Journal of Nanoscience and Nanotechnology, 2013, 13, 7254-7258.	0.9	6
74	Synergistic enhancement of antibacterial activity of Cu:C nanocomposites through plasma induced microstructural engineering. Applied Surface Science, 2020, 500, 143996.	6.1	6
75	Solutionâ€Processable Transparent Organic Molecular Nanoadhesives for Exceptionally Durable Nanowire Electrodes. Advanced Electronic Materials, 2020, 6, 1901440.	5.1	6
76	Aqueous dispersion of 1D van der Waals Mo6S3I6 crystal using biocompatible tri-block copolymer. Ceramics International, 2021, 47, 11935-11941.	4.8	6
77	Bio-essential Inorganic Molecular Nanowires as a Bioactive Muscle Extracellular-Matrix-Mimicking Material. ACS Applied Materials & Interfaces, 2021, 13, 39135-39141.	8.0	6
78	Progress and perspectives of metal-ion-substituted hydroxyapatite for bone tissue engineering: comparison with hydroxyapatite. Journal of the Korean Ceramic Society, 2022, 59, 271-288.	2.3	6
79	Pulsed DC-plasma sputtering induced synthesis of hydrogenated carbon thin films for L-929 cell cultivation. Surface and Coatings Technology, 2016, 307, 1119-1123.	4.8	5
80	Fluorescence-coded DNA Nanostructure Probe System to Enable Discrimination of Tumor Heterogeneity via a Screening of Dual Intracellular microRNA Signatures in situ. Scientific Reports, 2017, 7, 13499.	3.3	5
81	Differences in DNA Probe-Mediated Aggregation Behavior of Gold Nanomaterials Based on Their Geometric Appearance. Langmuir, 2018, 34, 14869-14874.	3.5	5
82	Surfaceâ€Tunable Bioluminescence Resonance Energy Transfer via Geometryâ€Controlled ZnO Nanorod Coordination. Small, 2015, 11, 3469-3475.	10.0	4
83	Effect of Si₃N₄ Thickness on the Optical Characterization of Graphene. Journal of Nanoscience and Nanotechnology, 2014, 14, 9119-9123.	0.9	3
84	High-throughput in-focus differential interference contrast imaging of three-dimensional orientations of single gold nanorods coated with a mesoporous silica shell. RSC Advances, 2020, 10, 29868-29872.	3.6	3
85	Biomimetics: Conductive and Stretchable Adhesive Electronics with Miniaturized Octopus-Like Suckers against Dry/Wet Skin for Biosignal Monitoring (Adv. Funct. Mater. 52/2018). Advanced Functional Materials, 2018, 28, 1870372.	14.9	2
86	A simple and highly reliable method to enhance the adhesion properties of polyethylene using Kapton-taping process. International Journal of Adhesion and Adhesives, 2021, 110, 102937.	2.9	2
87	DNAzyme-Based Sensing for Metal Ions in Ocean Platform. Springer Protocols, 2012, , 103-116.	0.3	2
88	Significant Enhancement of the Adhesion Properties of Chemically Functionalized Polypropylene. Science of Advanced Materials, 2019, 11, 1699-1704.	0.7	2
89	Revealing the Presence of a Symbolic Sequence Representing Multiple Nucleotides Based on K-Means Clustering of Oligonucleotides. Molecules, 2019, 24, 348.	3.8	1
90	Optical DNA Based Sensors for Cervical Cancers. , 2021, , 71-83.		1