# Jung Heon Lee

## List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/9474671/publications.pdf

Version: 2024-02-01

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|---|---|---|---|
| 90 papers | 4,965 citations | 172207 29 h-index | 91712 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. | 4.7 | 465 |
| 2 | Highly Sensitive and Selective Colorimetric Sensors for Uranyl (UO<sub>2</sub><sup>2+</sup>): Development and Comparison of Labeled and Label-Free DNAzyme-Gold Nanoparticle Systems. Journal of the American Chemical Society, 2008, 130, 14217-14226. | 6.6 | 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. | 11.1 | 426 |
| 4 | Molecular diagnostic and drug delivery agents based on aptamer-nanomaterial conjugates. Advanced Drug Delivery Reviews, 2010, 62, 592-605. | 6.6 | 268 |
| 5 | Quantum Dot Encoding of Aptamer-Linked Nanostructures for One-Pot Simultaneous Detection of Multiple Analytes. Analytical Chemistry, 2007, 79, 4120-4125. | 3.2 | 253 |
| 6 | Highly sensitive â€œturn-onâ€•fluorescent sensor for Hg2+ in aqueous solution based on structure-switching DNA. Chemical Communications, 2008, , 6005. | 2.2 | 253 |
| 7 | Direct Observation of Nanoparticleâ€“Cancer Cell Nucleus Interactions. ACS Nano, 2012, 6, 3318-3326. | 7.3 | 251 |
| 8 | Nanoscale Patterns of Oligonucleotides Formed by Electrohydrodynamic Jet Printing with Applications in Biosensing and Nanomaterials Assembly. Nano Letters, 2008, 8, 4210-4216. | 4.5 | 205 |
| 9 | Transparent, Lowâ€Power Pressure Sensor Matrix Based on Coplanarâ€Gate Graphene Transistors. Advanced Materials, 2014, 26, 4735-4740. | 11.1 | 185 |
| 10 | Retarding charge recombination in perovskite solar cells using ultrathin MgO-coated TiO<sub>2</sub> nanoparticulate films. Journal of Materials Chemistry A, 2015, 3, 9160-9164. | 5.2 | 167 |
| 11 | Smart â€œTurnâ€onâ€•Magnetic Resonance Contrast Agents Based on Aptamerâ€Functionalized Superparamagnetic Iron Oxide Nanoparticles. ChemBioChem, 2007, 8, 1675-1678. | 1.3 | 135 |
| 12 | Flexible and Transparent Metallic Grid Electrodes Prepared by Evaporative Assembly. ACS Applied Materials & Interfaces, 2014, 6, 12380-12387. | 4.0 | 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. | 7.8 | 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. | 7.2 | 102 |
| 15 | Statistical Characterization of the Morphologies of Nanoparticles through Machine Learning Based Electron Microscopy Image Analysis. ACS Nano, 2020, 14, 17125-17133. | 7.3 | 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. | 1.7 | 75 |
| 17 | A Biodegradation Study of SBA-15 Microparticles in Simulated Body Fluid and in Vivo. Langmuir, 2015, 31, 6457-6462. | 1.6 | 69 |
| 18 | Gold nanostar-mediated neural activity control using plasmonic photothermal effects. Biomaterials, 2018, 153, 59-69. | 5.7 | 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. | 4.6 | 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. | 0.9 | 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. | 0.8 | 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. | 6.6 | 48 |
| 23 | Rapid, Highâ€Resolution 3D Interference Printing of Multilevel Ultralong Nanochannel Arrays for Highâ€Throughput Nanofluidic Transport. Advanced Materials, 2015, 27, 8000-8006. | 11.1 | 45 |
| 24 | Aspartic Acid-Assisted Synthesis of Multifunctional Strontium-Substituted Hydroxyapatite Microspheres. Crystal Growth and Design, 2016, 16, 4318-4326. | 1.4 | 45 |
| 25 | Graphene-Graphene Oxide Floating Gate Transistor Memory. Small, 2015, 11, 311-318. | 5.2 | 44 |
| 26 | Size-controlled growth and antibacterial mechanism for Cu:C nanocomposite thin films. Physical Chemistry Chemical Physics, 2017, 19, 237-244. | 1.3 | 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. | 4.0 | 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. | 3.1 | 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. | 0.8 | 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. | 1.1 | 30 |
| 31 | Ultrastable-Stealth Large Gold Nanoparticles with DNA Directed Biological Functionality. Langmuir, 2015, 31, 13773-13782. | 1.6 | 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. | 1.4 | 27 |
| 33 | Natural bone-mimicking nanopore-incorporated hydroxyapatite scaffolds for enhanced bone tissue regeneration. Biomaterials Research, 2022, 26, 7. | 3.2 | 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. | 2.8 | 25 |
| 35 | Single-Chain Atomic Crystals as Extracellular Matrix-Mimicking Material with Exceptional Biocompatibility and Bioactivity. Nano Letters, 2018, 18, 7619-7627. | 4.5 | 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. | 2.5 | 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. | 1.2 | 23 |
| 38 | Low temperature plasma processing for cell growth inspired carbon thin films fabrication. Archives of Biochemistry and Biophysics, 2016, 605, 41-48. | 1.4 | 22 |
| 39 | Systematic study of interdependent relationship on gold nanorod synthesis assisted by electron microscopy image analysis. Nanoscale, 2017, 9, 7114-7123. | 2.8 | 22 |
| 40 | Exceptional Mechanical Properties of Phase-Separation-Free Mo<sub>3</sub>Se<sub>3</sub><sup>â€“</sup>-Chain-Reinforced Hydrogel Prepared by Polymer Wrapping Process. Nano Letters, 2019, 19, 5717-5724. | 4.5 | 22 |
| 41 | Multifunctional Heterogeneous Carbon Nanotube Nanocomposites Assembled by DNAâ€Binding Peptide Anchors. Small, 2020, 16, e1905821. | 5.2 | 22 |
| 42 | Surfactant-free nanoparticleâ€“DNA complexes with ultrahigh stability against salt for environmental and biological sensing. Analyst, The, 2014, 139, 5936-5944. | 1.7 | 20 |
| 43 | Chemical effects of organo-silanized SiO2 nanofillers on epoxy adhesives. Journal of Industrial and Engineering Chemistry, 2017, 54, 184-189. | 2.9 | 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. | 5.2 | 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. | 1.3 | 20 |
| 46 | An Antibacterial Nanorobotic Approach for the Specific Targeting and Removal of Multiple Drugâ€Resistant Staphylococcus aureus. Small, 2021, 17, e2100257. | 5.2 | 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. | 3.6 | 19 |
| 48 | Achromaticâ€“chromatic colorimetric sensors for onâ€“off type detection of analytes. Analyst, The, 2014, 139, 6486-6493. | 1.7 | 17 |
| 49 | pn-Heterojunction Effects of Perylene Tetracarboxylic Diimide Derivatives on Pentacene Field-Effect Transistor. ACS Applied Materials & Interfaces, 2015, 7, 2025-2031. | 4.0 | 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. | 2.5 | 17 |
| 51 | Surface energy and wettability control in bio-inspired PEG like thin films. Materials and Design, 2016, 92, 405-413. | 3.3 | 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. | 2.0 | 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. | 2.2 | 15 |
| 54 | Hierarchical Surface Texturing of Hydroxyapatite Ceramics: Influence on the Adhesive Bonding Strength of Polymeric Polycaprolactone. Journal of Functional Biomaterials, 2020, 11, 73. | 1.8 | 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. | 1.7 | 14 |
| 56 | Multifunctional Nanomaterial-alginate Drug Delivery and Imaging System for Cancer Therapy. Biochip Journal, 2019, 13, 236-242. | 2.5 | 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. | 1.2 | 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. | 2.2 | 13 |
| 59 | Formation Mechanism of Rutile TiO<SUB>2</SUB> 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. | 1.8 | 12 |
| 61 | Nanoparticles as Next-Generation Tooth-Whitening Agents: Progress and Perspectives. ACS Nano, 2022, 16, 10042-10065. | 7.3 | 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. | 1.3 | 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. | 1.1 | 10 |
| 64 | The Effect of Î¶â€Potential and Hydrodynamic Size on Nanoparticle Interactions in Hydrogels. Particle and Particle Systems Characterization, 2019, 36, 1800292. | 1.2 | 10 |
| 65 | Reduction by water for eco-friendly, capping agent-free synthesis of ultrasmall platinum nanocrystals. Chemical Physics Letters, 2014, 595-596, 77-82. | 1.2 | 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. | 1.4 | 9 |
| 67 | Electrochemical Performances of Yttrium Doped Li<sub>3</sub>V<sub>2â€“X</sub>Y<sub>X</sub>(PO<sub>4</sub>)<sub>3</sub>/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. | 1.6 | 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. | 0.8 | 8 |
| 70 | Size-tunable and scalable synthesis of uniform copper nanocrystals. RSC Advances, 2015, 5, 2756-2761. | 1.7 | 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. | 1.5 | 7 |
| 72 | Surface Polarity-Insensitive Organosilicasome-Based Clustering of Nanoparticles with Intragap Distance Tunability. Chemistry of Materials, 2021, 33, 5257-5267. | 3.2 | 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. | 3.1 | 6 |
| 75 | Solutionâ€Processable Transparent Organic Molecular Nanoadhesives for Exceptionally Durable Nanowire Electrodes. Advanced Electronic Materials, 2020, 6, 1901440. | 2.6 | 6 |
| 76 | Aqueous dispersion of 1D van der Waals Mo6S3I6 crystal using biocompatible tri-block copolymer. Ceramics International, 2021, 47, 11935-11941. | 2.3 | 6 |
| 77 | Bio-essential Inorganic Molecular Nanowires as a Bioactive Muscle Extracellular-Matrix-Mimicking Material. ACS Applied Materials & Interfaces, 2021, 13, 39135-39141. | 4.0 | 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. | 1.1 | 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. | 2.2 | 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. | 1.6 | 5 |
| 81 | Differences in DNA Probe-Mediated Aggregation Behavior of Gold Nanomaterials Based on Their Geometric Appearance. Langmuir, 2018, 34, 14869-14874. | 1.6 | 5 |
| 82 | Surfaceâ€Tunable Bioluminescence Resonance Energy Transfer via Geometryâ€Controlled ZnO Nanorod Coordination. Small, 2015, 11, 3469-3475. | 5.2 | 4 |
| 83 | Effect of Si<SUB>3</SUB>N<SUB>4</SUB> 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. | 1.7 | 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. | 7.8 | 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. | 1.4 | 2 |
| 87 | DNAzyme-Based Sensing for Metal Ions in Ocean Platform. Springer Protocols, 2012, , 103-116. | 0.1 | 2 |
| 88 | Significant Enhancement of the Adhesion Properties of Chemically Functionalized Polypropylene. Science of Advanced Materials, 2019, 11, 1699-1704. | 0.1 | 2 |
| 89 | Revealing the Presence of a Symbolic Sequence Representing Multiple Nucleotides Based on K-Means Clustering of Oligonucleotides. Molecules, 2019, 24, 348. | 1.7 | 1 |
| 90 | Optical DNA Based Sensors for Cervical Cancers. , 2021, , 71-83. | | 1 |