

# Inhee Choi

## List of Publications by Year in descending order

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106  
papers

2,426  
citations

257450

24  
h-index

223800

46  
g-index

107  
all docs

107  
docs citations

107  
times ranked

3921  
citing authors

#	ARTICLE	IF	CITATIONS
1	Arsenic Removal Using Mesoporous Alumina Prepared via a Templating Method. Environmental Science & Technology, 2004, 38, 924-931.	10.0	579
2	Interfacial liquid-state surface-enhanced Raman spectroscopy. Nature Communications, 2013, 4, 2182.	12.8	117
3	Plasmonic Nanosensors: Review and Prospect. IEEE Journal of Selected Topics in Quantum Electronics, 2012, 18, 1110-1121.	2.9	94
4	Graphene Nanopore with a Self-Integrated Optical Antenna. Nano Letters, 2014, 14, 5584-5589.	9.1	79
5	Sensitive and Colorimetric Detection of the Structural Evolution of Superoxide Dismutase with Gold Nanoparticles. Analytical Chemistry, 2009, 81, 1378-1382.	6.5	76
6	Core-Satellites Assembly of Silver Nanoparticles on a Single Gold Nanoparticle via Metal Ion-Mediated Complex. Journal of the American Chemical Society, 2012, 134, 12083-12090.	13.7	68
7	Reversible pH-Driven Conformational Switching of Tethered Superoxide Dismutase with Gold Nanoparticle Enhanced Surface Plasmon Resonance Spectroscopy. Journal of the American Chemical Society, 2006, 128, 12870-12878.	13.7	66
8	DPP-IV Inhibitory Potentials of Flavonol Glycosides Isolated from the Seeds of Lens culinaris: In Vitro and Molecular Docking Analyses. Molecules, 2018, 23, 1998.	3.8	57
9	Rapid Detection of A $\beta$ Aggregation and Inhibition by Dual Functions of Gold Nanoplasmonic Particles: Catalytic Activator and Optical Reporter. ACS Nano, 2013, 7, 6268-6277.	14.6	56
10	Ultra-sensitive, label-free probing of the conformational characteristics of amyloid beta aggregates with a SERS active nanofluidic device. Microfluidics and Nanofluidics, 2012, 12, 663-669.	2.2	51
11	Size-selective concentration and label-free characterization of protein aggregates using a Raman active nanofluidic device. Lab on A Chip, 2011, 11, 632-638.	6.0	49
12	Intracellular Nanomaterial Delivery via Spiral Hydroporation. ACS Nano, 2020, 14, 3048-3058.	14.6	45
13	In situ observation of biomolecules patterned on a PEG-modified Si surface by scanning probe lithography. Biomaterials, 2006, 27, 4655-4660.	11.4	42
14	Phase Separation of a Mixed Self-Assembled Monolayer Prepared via a Stepwise Method. Langmuir, 2006, 22, 4885-4889.	3.5	41
15	Label-free electrochemical monitoring of vasopressin in aptamer-based microfluidic biosensors. Analytica Chimica Acta, 2013, 759, 74-80.	5.4	38
16	Photothermal Convection Lithography for Rapid and Direct Assembly of Colloidal Plasmonic Nanoparticles on Generic Substrates. Small, 2018, 14, e1803055.	10.0	37
17	Fabrication Strategies of 3D Plasmonic Structures for SERS. Biochip Journal, 2019, 13, 30-42.	4.9	36
18	Identification of adverse outcome pathway related to high-density polyethylene microplastics exposure: Caenorhabditis elegans transcription factor RNAi screening and zebrafish study. Journal of Hazardous Materials, 2020, 388, 121725.	12.4	34

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19	Tunable Plasmonic Cavity for Label-free Detection of Small Molecules. ACS Applied Materials & Interfaces, 2018, 10, 13226-13235.	8.0	33
20	On-Chip Colorimetric Detection of Cu <sup>2+</sup> Ions via Density-Controlled Plasmonic Core-Satellites Nanoassembly. Analytical Chemistry, 2013, 85, 7980-7986.	6.5	31
21	Three-Dimensional Reduced-Symmetry of Colloidal Plasmonic Nanoparticles. Nano Letters, 2012, 12, 2436-2440.	9.1	29
22	Developing adverse outcome pathways on silver nanoparticle-induced reproductive toxicity via oxidative stress in the nematode <i>Caenorhabditis elegans</i> using a Bayesian network model. Nanotoxicology, 2018, 12, 1182-1197.	3.0	29
23	A single nanoparticle-based sensor for hydrogen peroxide (H <sub>2</sub> O <sub>2</sub> ) via cytochrome c-mediated plasmon resonance energy transfer. Chemical Communications, 2015, 51, 15370-15373.	4.1	26
24	Picomolar selective detection of mercuric ion (Hg <sup>2+</sup> ) using a functionalized single plasmonic gold nanoparticle. Nanotechnology, 2010, 21, 145501.	2.6	25
25	Spontaneous Self-Formation of 3D Plasmonic Optical Structures. ACS Nano, 2016, 10, 7639-7645.	14.6	25
26	Lipid molecules induce the cytotoxic aggregation of Cu/Zn superoxide dismutase with structurally disordered regions. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2011, 1812, 41-48.	3.8	23
27	Graphene oxide-induced neurotoxicity on neurotransmitters, AFD neurons and locomotive behavior in <i>Caenorhabditis elegans</i> . NeuroToxicology, 2020, 77, 30-39.	3.0	23
28	In situ Negative Patterning of p-Silicon via Scanning Probe Lithography in HF/EtOH Liquid Bridges. Journal of the American Chemical Society, 2005, 127, 9380-9381.	13.7	21
29	Facile Amplification of Solution-State Surface-Enhanced Raman Scattering of Small Molecules Using Spontaneously Formed 3D Nanoplasmonic Wells. Analytical Chemistry, 2018, 90, 5023-5031.	6.5	21
30	Label-free sensitive optical detection of polychlorinated biphenyl (PCB) in an aqueous solution based on surface plasmon resonance measurements. Sensors and Actuators B: Chemical, 2008, 134, 300-306.	7.8	20
31	Highly selective detection of Cu <sup>2+</sup> utilizing specific binding between Cu-demetalated superoxide dismutase 1 and the Cu <sup>2+</sup> ion via surface plasmon resonance spectroscopy. Chemical Communications, 2009, , 6171.	4.1	20
32	Multifunctional and recyclable TiO <sub>2</sub> hybrid sponges for efficient sorption, detection, and photocatalytic decomposition of organic pollutants. Journal of Industrial and Engineering Chemistry, 2019, 73, 328-335.	5.8	20
33	Adjustable and Versatile 3D Tumor Spheroid Culture Platform with Interfacial Elastomeric Wells. ACS Applied Materials & Interfaces, 2020, 12, 6924-6932.	8.0	20
34	High-throughput drug screening using the Ebola virus transcription- and replication-competent virus-like particle system. Antiviral Research, 2018, 158, 226-237.	4.1	19
35	Redox/pH-dual responsive functional hollow silica nanoparticles for hyaluronic acid-guided drug delivery. Journal of Industrial and Engineering Chemistry, 2022, 108, 72-80.	5.8	19
36	Fabrication of hierarchical micro/nanostructures via scanning probe lithography and wet chemical etching. Ultramicroscopy, 2008, 108, 1205-1209.	1.9	17

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37	Dual Mode Rapid Plasmonic Detections of Chemical Disinfectants (CMIT/MIT) Using Target-Mediated Selective Aggregation of Gold Nanoparticles. <i>Analytical Chemistry</i> , 2020, 92, 4201-4208.	6.5	17
38	Directed Positioning of Single Cells in Microwells Fabricated by Scanning Probe Lithography and Wet Etching Methods. <i>Langmuir</i> , 2008, 24, 2597-2602.	3.5	16
39	Colorimetric tracking of protein structural evolution based on the distance-dependent light scattering of embedded gold nanoparticles. <i>Chemical Communications</i> , 2012, 48, 2286.	4.1	15
40	Controlled drug release with surface-capped mesoporous silica nanoparticles and its label-free in situ Raman monitoring. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2018, 131, 232-239.	4.3	15
41	Direct Observation of Defects and Increased Ion Permeability of a Membrane Induced by Structurally Disordered Cu/Zn-Superoxide Dismutase Aggregates. <i>PLoS ONE</i> , 2011, 6, e28982.	2.5	15
42	Fabrication of submicron size electrode via nonetching method for metal ion detection. <i>Applied Physics Letters</i> , 2005, 86, 073113.	3.3	14
43	Aspect ratio control of Au nanorods via temperature and hydroxylamine concentration of reaction medium. <i>Current Applied Physics</i> , 2006, 6, e114-e120.	2.4	14
44	Solution based, on chip direct growth of three-dimensionally wrinkled gold nanoparticles for a SERS active substrate. <i>Chemical Communications</i> , 2015, 51, 213-216.	4.1	14
45	Recent Advances in Nanoplasmonic Sensors for Environmental Detection and Monitoring. <i>Journal of Nanoscience and Nanotechnology</i> , 2016, 16, 4274-4283.	0.9	14
46	Gold Nanoparticles as Nucleation-Inducing Reagents for Protein Crystallization. <i>Crystal Growth and Design</i> , 2017, 17, 497-503.	3.0	14
47	Optical Detection of Copper Ions <i>via</i> Structural Dissociation of Plasmonic Sugar Nanoprobes. <i>Analytical Chemistry</i> , 2022, 94, 5521-5529.	6.5	14
48	Fabrication of submicron- or nano-sized mesa electrodes via AFM oxidation: Applications to metal ion detection. <i>Microelectronic Engineering</i> , 2005, 81, 341-348.	2.4	13
49	Simultaneous Optical Monitoring of the Overgrowth Modes of Individual Asymmetric Hybrid Nanoparticles. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 4633-4636.	13.8	12
50	A gold nanoparticle-mediated rapid in vitro assay of anti-aggregation reagents for amyloid $\beta$ and its validation. <i>Chemical Communications</i> , 2017, 53, 4449-4452.	4.1	12
51	Facile Fabrication of Large-Scale Porous and Flexible Three-Dimensional Plasmonic Networks. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 28242-28249.	8.0	12
52	Fabrication of multicomponent protein microarrays with microfluidic devices of poly(dimethylsiloxane). <i>Macromolecular Research</i> , 2009, 17, 192-196.	2.4	11
53	Real-time analysis and direct observations of different superoxide dismutase (SOD1) molecules bindings to aggregates in temporal evolution step. <i>Colloids and Surfaces B: Biointerfaces</i> , 2013, 101, 266-271.	5.0	10
54	Ultrafast colorimetric determination of predominant protein structure evolution with gold nanoplasmonic particles. <i>Nanoscale</i> , 2016, 8, 1952-1959.	5.6	10

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55	Dependence of image distortion in a liquid-cell atomic force microscope on fluidic properties. <i>Applied Physics Letters</i> , 2006, 88, 173121.	3.3	9
56	Active Surface Hydrophobicity Switching and Dynamic Interfacial Trapping of Microbial Cells by Metal Nanoparticles for Preconcentration and In-Plane Optical Detection. <i>Nano Letters</i> , 2019, 19, 7449-7456.	9.1	9
57	Phase transfer-driven rapid and complete ligand exchange for molecular assembly of phospholipid bilayers on aqueous gold nanocrystals. <i>Chemical Communications</i> , 2019, 55, 3195-3198.	4.1	9
58	An array of Au nanoparticles on the nanopatterned Si(100). <i>Microelectronic Engineering</i> , 2005, 81, 389-393.	2.4	8
59	Multifunctionalization of organosilanes on submicron-sized island-type electrodes for the selective detection of metal ions. <i>Applied Physics Letters</i> , 2006, 88, 013113.	3.3	8
60	Fast image scanning method in liquid-AFM without image distortion. <i>Nanotechnology</i> , 2008, 19, 445701.	2.6	8
61	Determination of nanomolar levels of reactive oxygen species in microorganisms and aquatic environments using a single nanoparticle-based optical sensor. <i>Analytica Chimica Acta</i> , 2017, 967, 85-92.	5.4	8
62	Photothermally Enhanced Molecular Delivery and Cellular Positioning on Patterned Plasmonic Interfaces. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 36420-36427.	8.0	8
63	On-chip plasmonic immunoassay based on targeted assembly of gold nanoplasmonic particles. <i>Analyst</i> , 2019, 144, 2820-2826.	3.5	7
64	Synthesis of trans-substituted porphyrin building blocks containing two S-trityl or thiol groups. <i>Korean Journal of Chemical Engineering</i> , 2006, 23, 512-515.	2.7	6
65	Interfacial kinetic enhancement of metal ion adsorption on binary mixed self-assembled monolayers. <i>Applied Surface Science</i> , 2007, 253, 7554-7558.	6.1	6
66	Construction of pcAFM module to measure photoconductance with a nanoscale spatial resolution. <i>Ultramicroscopy</i> , 2008, 108, 1090-1093.	1.9	6
67	Selective Aggregation of Polyanion-Coated Gold Nanorods Induced by Divalent Metal Ions in an Aqueous Solution. <i>Journal of Nanoscience and Nanotechnology</i> , 2010, 10, 3538-3542.	0.9	6
68	Dependence of approaching velocity on the force-distance curve in AFM analysis. <i>Korean Journal of Chemical Engineering</i> , 2010, 27, 324-327.	2.7	6
69	Extra- and Intracellular Monitoring of TGF- $\beta$ <sup>2</sup> Using Single Immunoplasmonic Nanoprobes. <i>ACS Sensors</i> , 2021, 6, 1823-1830.	7.8	6
70	Sensitive and Homogeneous Surface-Enhanced Raman Scattering Detection Using Heterometallic Interfaces on Metal-Organic Framework-Derived Structure. <i>Advanced Materials Interfaces</i> , 2022, 9, .	3.7	6
71	Fabrication of submicron-sized copper structures on pre-patterned self-assembled monolayer and Langmuir-Blodgett films. <i>Korean Journal of Chemical Engineering</i> , 2005, 22, 635-638.	2.7	5
72	Investigation on shape variation of Au nanocrystals. <i>Current Applied Physics</i> , 2008, 8, 810-813.	2.4	5

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73	Current nano/biotechnological approaches in amyotrophic lateral sclerosis. <i>Biomedical Engineering Letters</i> , 2013, 3, 209-222.	4.1	5
74	Aqueous-Phase Synthesis of Hyaluronic Acid-Based Hydrogel Nanoparticles for Molecular Storage and Enzymatic Release. <i>ACS Applied Polymer Materials</i> , 2020, 2, 342-350.	4.4	5
75	Colorimetric Determination of pH Values using Silver Nanoparticles Conjugated with Cytochrome c. <i>Bulletin of the Korean Chemical Society</i> , 2011, 32, 3433-3436.	1.9	5
76	Colloidal Multiscale Assembly via Photothermally Driven Convective Flow for Sensitive In-solution Plasmonic Detections. <i>Small</i> , 2022, 18, e2201075.	10.0	5
77	Fast heating stage for open liquid-cell atomic force microscopy. <i>Review of Scientific Instruments</i> , 2006, 77, 036114.	1.3	4
78	Fabrication of island-type microelectrode via AFM lithography for a highly sensitive Pt-ion detection system. <i>Sensors and Actuators B: Chemical</i> , 2008, 129, 734-740.	7.8	4
79	Rapid Detection of Protein Aggregation and Inhibition by Dual Functions of Gold Nanoplasmonic Particles: Catalytic Activator and Optical Reporter. <i>Biophysical Journal</i> , 2014, 106, 416a-417a.	0.5	4
80	Rapid and high-throughput colorimetric screening for anti-aggregation reagents of protein conformational diseases by using gold nanoplasmonic particles. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2017, 13, 1575-1585.	3.3	4
81	3D Assembly of Metal Nanoparticles at Oleic Acid/Water Interface via Their Autonomous and Rapid Interfacial Locomotion. <i>Advanced Materials Interfaces</i> , 2018, 5, 1800981.	3.7	4
82	Urea-Driven Conformational Changes in Surface-Bound Superoxide Dismutase. <i>Bulletin of the Korean Chemical Society</i> , 2008, 29, 1451-1458.	1.9	4
83	Integrated Microalgae Analysis Photobioreactor for Rapid Strain Selection. <i>ACS Nano</i> , 2016, 10, 5635-5642.	14.6	3
84	Sensitive and Direct Optical Monitoring of Release and Cellular Uptake of Aqueous CO from CO-Releasing Molecules. <i>Analytical Chemistry</i> , 2021, 93, 9927-9932.	6.5	3
85	High-spatial and colourimetric imaging of histone modifications in single senescent cells using plasmonic nanoprobe. <i>Nature Communications</i> , 2021, 12, 5899.	12.8	3
86	Fabrication of 3D Functionalized Microstructure via Scanning Probe Lithography and Self-Assembly Methods. <i>Journal of Nanoscience and Nanotechnology</i> , 2007, 7, 4161-4164.	0.9	2
87	Fabrication of a 3-dimensional microstructure by sequential anodic oxidation (SAO). <i>Microelectronic Engineering</i> , 2007, 84, 308-312.	2.4	2
88	Highly selective modification of silicon oxide structures fabricated by an AFM anodic oxidation. <i>Korean Journal of Chemical Engineering</i> , 2008, 25, 386-389.	2.7	2
89	Effect of laser beam focusing point on AFM measurements. <i>Korean Journal of Chemical Engineering</i> , 2009, 26, 496-499.	2.7	2
90	Innenteilbild: Simultaneous Optical Monitoring of the Overgrowth Modes of Individual Asymmetric Hybrid Nanoparticles ( <i>Angew. Chem.</i> 20/2011). <i>Angewandte Chemie</i> , 2011, 123, 4614-4614.	2.0	2

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91	Graphene Nanopore with Self-Aligned Plasmonic Optical Antenna. Biophysical Journal, 2014, 106, 414a.	0.5	2
92	Ultrasensitive and real-time optical detection of cellular oxidative stress using graphene-covered tunable plasmonic interfaces. Nano Convergence, 2022, 9, .	12.1	2
93	Biomimetic sensors for the heavy metal detection. , 2009, , .		1
94	On-Chip Fast Plasmonic Detection of Single Molecule Mirna for Cancer Diagnosis. Biophysical Journal, 2014, 106, 617a.	0.5	1
95	Response to Comment on "Arsenic Removal Using Mesoporous Alumina Prepared via a Templating Method": Environmental Science & Technology, 2004, 38, 3216-3216.	10.0	0
96	Observation on Growth Process of Gold Y- and $\eta$ -shaped Nanoparticles in Solutions. Journal of Nanoscience and Nanotechnology, 2007, 7, 3823-3826.	0.9	0
97	In situ observation of the behavior of superoxide dismutase aggregates on a patterned surface via scanning probe microscopy. Microelectronic Engineering, 2007, 84, 1766-1769.	2.4	0
98	Development of a novel biosensor for in-vitro observation of protein behaviors. , 2009, , .		0
99	Formation of abnormally large-sized tubular amyloid $\beta^2$ aggregates on a nanostructured gold surface. Korean Journal of Chemical Engineering, 2011, 28, 184-188.	2.7	0
100	Inside Cover: Simultaneous Optical Monitoring of the Overgrowth Modes of Individual Asymmetric Hybrid Nanoparticles (Angew. Chem. Int. Ed. 20/2011). Angewandte Chemie - International Edition, 2011, 50, 4520-4520.	13.8	0
101	Real-Time Optical Monitoring of Pt Catalyst Under the Potentiodynamic Conditions. Scientific Reports, 2016, 6, 38847.	3.3	0
102	Optical Detection of Small Metabolites for Biological Gas Conversion by using Metal Nanoparticle Monolayers Produced by Capillary-Assisted Transfer. Analytical Chemistry, 2019, 91, 13152-13157.	6.5	0
103	Induction of crystal nucleation by orientation-controlled binding of His <sub>6</sub> -tagged proteins to functionalized gold nanoparticles. CrystEngComm, 2020, 22, 1032-1040.	2.6	0
104	10.2478/s11814-009-0314-4. , 2011, 27, 324.		0
105	Fabrication of 3D functionalized microstructure via scanning probe lithography and self-assembly methods. Journal of Nanoscience and Nanotechnology, 2007, 7, 4161-4.	0.9	0
106	Gold and silver plasmonic nanoprobes trace the positions of histone codes. BMB Reports, 2022, 55, 111-112.	2.4	0