Hyunmin Yi

List of Publications by Year
in descending order

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65 papers	3,195 citations	172207 29 h-index	149479 56 g-index
66 all docs	66 docs citations	66 times ranked	3609 citing authors

#	Article	IF	Citations
1	Biofabrication with Chitosan. Biomacromolecules, 2005, 6, 2881-2894.	2.6	667
2	Voltage-Dependent Assembly of the Polysaccharide Chitosan onto an Electrode Surface. Langmuir, 2002, 18, 8620-8625.	1.6	283
3	Electrochemically Induced Deposition of a Polysaccharide Hydrogel onto a Patterned Surface. Langmuir, 2003, 19, 4058-4062.	1.6	184
4	Patterned Assembly of Genetically Modified Viral Nanotemplates via Nucleic Acid Hybridization. Nano Letters, 2005, 5, 1931-1936.	4.5	156
5	Detecting hybridization of DNA by highly sensitive evanescent field etched core fiber Bragg grating sensors. IEEE Journal of Selected Topics in Quantum Electronics, 2005, 11, 864-872.	1.9	122
6	Spatially Selective Deposition of a Reactive Polysaccharide Layer onto a Patterned Template. Langmuir, 2003, 19, 519-524.	1.6	111
7	Microfluidic fabrication of complex-shaped microfibers by liquid template-aided multiphase microflow. Lab on A Chip, 2011, 11, 1477.	3.1	91
8	Chitosan-mediated in situ biomolecule assembly in completely packaged microfluidic devices. Lab on A Chip, 2006, 6, 1315.	3.1	68
9	Simple, Readily Controllable Palladium Nanoparticle Formation on Surface-Assembled Viral Nanotemplates. Langmuir, 2010, 26, 3670-3677.	1.6	66
10	A Facile Synthesisâ€“Fabrication Strategy for Integration of Catalytically Active Viral-Palladium Nanostructures into Polymeric Hydrogel Microparticles via Replica Molding. ACS Nano, 2013, 7, 5032-5044.	7.3	65
11	Microfluidic Fabrication of Hydrogel Microparticles Containing Functionalized Viral Nanotemplates. Langmuir, 2010, 26, 13436-13441.	1.6	62
12	A Robust Technique for Assembly of Nucleic Acid Hybridization Chips Based on Electrochemically Templated Chitosan. Analytical Chemistry, 2004, 76, 365-372.	3.2	61
13	Investigation on the catalytic reduction kinetics of hexavalent chromium by viral-templated palladium nanocatalysts. Catalysis Today, 2014, 233, 108-116.	2.2	61
14	TMV Microarrays:Â Hybridization-Based Assembly of DNA-Programmed Viral Nanotemplates. Langmuir, 2007, 23, 2663-2667.	1.6	59
15	Fabrication of Uniform DNA-Conjugated Hydrogel Microparticles via Replica Molding for Facile Nucleic Acid Hybridization Assays. Analytical Chemistry, 2010, 82, 5851-5858.	3.2	59
16	Viral-templated palladium nanocatalysts for Suzuki coupling reaction. Journal of Materials Chemistry, 2011, 21, 187-194.	6.7	58
17	Improved Protein Conjugation with Uniform, Macroporous Poly(acrylamide-co-acrylic acid) Hydrogel Microspheres via EDC/NHS Chemistry. Langmuir, 2016, 32, 11043-11054.	1.6	54
18	Programmable assembly of a metabolic pathway enzyme in a pre-packaged reusable bioMEMS device. Lab on A Chip, 2008, 8, 420.	3.1	53

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19	Viral templated palladium nanocatalysts for dichromate reduction. Applied Catalysis B: Environmental, 2010, 93, 282-291.	10.8	52
20	High-throughput double emulsion-based microfluidic production of hydrogel microspheres with tunable chemical functionalities toward biomolecular conjugation. Lab on A Chip, 2018, 18, 323-334.	3.1	51
21	Signal-Directed Sequential Assembly of Biomolecules on Patterned Surfaces. Langmuir, 2005, 21, 2104-2107.	1.6	46
22	Fabrication of Chitosan-Poly(ethylene glycol) Hybrid Hydrogel Microparticles via Replica Molding and Its Application toward Facile Conjugation of Biomolecules. Langmuir, 2012, 28, 17061-17070.	1.6	46
23	Mechano-transduction of DNA hybridization and dopamine oxidation through electrodeposited chitosan network. Lab on A Chip, 2007, 7, 103-111.	3.1	44
24	Facile fabrication of gelatinâ€based biopolymeric optical waveguides. Biotechnology and Bioengineering, 2009, 103, 725-732.	1.7	44
25	Hierarchical Assembly of Viral Nanotemplates with Encoded Microparticles via Nucleic Acid Hybridization. Langmuir, 2008, 24, 12483-12488.	1.6	41
26	Chitosan scaffolds for biomolecular assembly: Coupling nucleic acid probes for detecting hybridization. Biotechnology and Bioengineering, 2003, 83, 646-652.	1.7	33
27	Protein assembly onto patterned microfabricated devices through enzymatic activation of fusion proâ€tag. Biotechnology and Bioengineering, 2008, 99, 499-507.	1.7	32
28	A fabrication platform for electrically mediated optically active biofunctionalized sites in BioMEMS. Lab on A Chip, 2005, 5, 583.	3.1	31
29	Facile Strategy for Protein Conjugation with Chitosan-Poly(ethylene glycol) Hybrid Microparticle Platforms via Strain-Promoted Alkyneâ€“Azide Cycloaddition (SPAAC) Reaction. Biomacromolecules, 2013, 14, 3892-3902.	2.6	30
30	In Situ Small-Angle X-ray Scattering Analysis of Palladium Nanoparticle Growth on Tobacco Mosaic Virus Nanotemplates. Langmuir, 2011, 27, 7052-7058.	1.6	29
31	An Integrated Approach for Enhanced Protein Conjugation and Capture with Viral Nanotemplates and Hydrogel Microparticle Platforms via Rapid Bioorthogonal Reactions. Langmuir, 2014, 30, 7762-7770.	1.6	26
32	A Method for Manufacturing Membranes with Ultrathin Hydrogel Selective Layers for Protein Purification: Interfacially Initiated Free Radical Polymerization (IIFRP). Chemistry of Materials, 2018, 30, 1265-1276.	3.2	26
33	Controlled Fabrication of Multicompartmental Polymeric Microparticles by Sequential Micromolding via Surface-Tension-Induced Droplet Formation. Langmuir, 2015, 31, 1328-1335.	1.6	24
34	Thermo-Biolithography:Â A Technique for Patterning Nucleic Acids and Proteins. Langmuir, 2004, 20, 906-913.	1.6	23
35	A biofabrication approach for controlled synthesis of silver nanoparticles with high catalytic and antibacterial activities. Biochemical Engineering Journal, 2014, 89, 10-20.	1.8	22
36	Membranes with Thin Hydrogel Selective Layers Containing Viral-Templated Palladium Nanoparticles for the Catalytic Reduction of Cr(VI) to Cr(III). ACS Applied Nano Materials, 2019, 2, 5233-5244.	2.4	22

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37	Facile Micromolding-Based Fabrication of Biopolymericâ€“Synthetic Hydrogel Microspheres with Controlled Structures for Improved Protein Conjugation. Chemistry of Materials, 2015, 27, 3988-3998.	3.2	21
38	On the Thermal Stability of Surface-Assembled Viral-Metal Nanoparticle Complexes. Langmuir, 2010, 26, 7516-7522.	1.6	20
39	Triple Emulsion-Based Rapid Microfluidic Production of Coreâ€“Shell Hydrogel Microspheres for Programmable Biomolecular Conjugation. ACS Applied Materials & Interfaces, 2021, 13, 11579-11587.	4.0	20
40	Towards areaâ€based in vitro metabolic engineering: Assembly of Pfs enzyme onto patterned microfabricated chips. Biotechnology Progress, 2008, 24, 1042-1051.	1.3	19
41	Facile approaches to control catalytic activity of viral-templated palladium nanocatalysts for dichromate reduction. Biochemical Engineering Journal, 2010, 52, 160-167.	1.8	19
42	Profiling surface glycans on live cells and tissues using quantum dot-lectin nanoconjugates. Lab on A Chip, 2012, 12, 3290.	3.1	19
43	Biologically inspired strategy for programmed assembly of viral building blocks with controlled dimensions. Biotechnology Journal, 2013, 8, 237-246.	1.8	19
44	Controlled Fabrication of Microparticles with Complex 3D Geometries by Tunable Interfacial Deformation of Confined Polymeric Fluids in 2D Micromolds. ACS Applied Materials & Interfaces, 2015, 7, 11393-11401.	4.0	19
45	LuxS Coexpression Enhances Yields of Recombinant Proteins in Escherichia coli in Part through Posttranscriptional Control of GroEL. Applied and Environmental Microbiology, 2011, 77, 2141-2152.	1.4	18
46	Porosity-Tuned Chitosanâ€“Polyacrylamide Hydrogel Microspheres for Improved Protein Conjugation. Biomacromolecules, 2016, 17, 2427-2436.	2.6	18
47	Shape-Encoded Chitosanâ€“Polyacrylamide Hybrid Hydrogel Microparticles with Controlled Macroporous Structures via Replica Molding for Programmable Biomacromolecular Conjugation. Langmuir, 2016, 32, 5394-5402.	1.6	16
48	Molecular characterization of surfactant-driven microbial community changes in anaerobic phenanthrene-degrading cultures under methanogenic conditions. Biotechnology Letters, 2008, 30, 1595-1601.	1.1	14
49	Dual-colour generation from layered colloidal photonic crystals harnessing â€œcore hatchingâ€•in double emulsions. Journal of Materials Chemistry C, 2019, 7, 6924-6931.	2.7	14
50	Controlled network structures of chitosan-poly(ethylene glycol) hydrogel microspheres and their impact on protein conjugation. Biochemical Engineering Journal, 2018, 135, 123-132.	1.8	13
51	Integrated fabricationâ€conjugation methods for polymeric and hybrid microparticles for programmable drug delivery and biosensing applications. Biotechnology Journal, 2016, 11, 1561-1571.	1.8	7
52	A Robust Fabrication Technique for Hydrogel Films Containing Micropatterned Opal Structures via Micromolding and an Integrated Evaporative Deposition-Photopolymerization Approach. Langmuir, 2021, 37, 1456-1464.	1.6	7
53	Multiplexed hydrogel microparticle suspension arrays for facile ribosomal RNA integrity assays. Biotechnology and Bioprocess Engineering, 2015, 20, 956-964.	1.4	6
54	Integrated fabrication-conjugation approaches for biomolecular assembly and protein sensing with hybrid microparticle platforms and biofabrication - A focused minireview. Korean Journal of Chemical Engineering, 2015, 32, 1713-1719.	1.2	6

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55	Optical biosensors based on etched fiber Bragg gratings. , 2005, , .		5
56	Electrical Charging Characteristics of Palladium Nanoparticles Synthesized on Tobacco Mosaic Virus Nanotemplate for Organic Memory Device. ECS Journal of Solid State Science and Technology, 2016, 5, Q226-Q230.	0.9	5
57	Viral Templated Palladium Nanocatalysts. ChemCatChem, 2015, 7, 2015-2024.	1.8	4
58	Integrated Methods to Manufacture Hydrogel Microparticles Containing Viralâ€“Metal Nanocomplexes with High Catalytic Activity. Methods in Molecular Biology, 2018, 1776, 569-578.	0.4	2
59	Toward a biophotonic MEMS cell sensor. , 2005, , .		1
60	Integrated Methods to Manufacture Hydrogel Microparticles with High Protein Conjugation Capacity and Binding Kinetics via Viral Nanotemplate Display. Methods in Molecular Biology, 2018, 1776, 579-589.	0.4	1
61	Voltage-programmable biofunctionality in MEMS environments using electrodeposition of a reactive polysaccharide. , 0, , .		0
62	Chitosan for Biofunctionalization of Microsystems. , 2006, , .		0
63	In situ Biomolecule Assembly and Activity within Completely Packaged Microfluidic Devices. , 2006, , .		0
64	Chitosan-mediated Patterned Viral Nanotemplate Assembly onto Inorganic Substrates through Nucleic Acid Hybridization. , 2006, , .		0
65	Integrated biophotonic hybridization sensor based on chitosan-mediated assembly. , 2007, , .		0