WonHyoung Ryu

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/3104104/publications.pdf

Version: 2024-02-01

70 papers	1,669 citations	304743 22 h-index	315739 38 g-index
71 all docs	71 docs citations	71 times ranked	2324 citing authors

#	Article	IF	Citations
1	Mechanically-reinforced electrospun composite silk fibroin nanofibers containing hydroxyapatite nanoparticles. Materials Science and Engineering C, 2014, 40, 324-335.	7.3	145
2	Electrospun Silk Fibroin Nanofibrous Scaffolds with Two-Stage Hydroxyapatite Functionalization for Enhancing the Osteogenic Differentiation of Human Adipose-Derived Mesenchymal Stem Cells. ACS Applied Materials & Interfaces, 2018, 10, 7614-7625.	8.0	117
3	Biodegradable micro-osmotic pump for long-term and controlled release of basic fibroblast growth factor. Journal of Controlled Release, 2007, 124, 98-105.	9.9	80
4	Non-transdermal microneedles for advanced drug delivery. Advanced Drug Delivery Reviews, 2020, 165-166, 41-59.	13.7	80
5	Direct Extraction of Photosynthetic Electrons from Single Algal Cells by Nanoprobing System. Nano Letters, 2010, 10, 1137-1143.	9.1	75
6	Impact insertion of transfer-molded microneedle for localized and minimally invasive ocular drug delivery. Journal of Controlled Release, 2015, 209, 272-279.	9.9	71
7	Rapid and repeatable fabrication of high A/R silk fibroin microneedles using thermally-drawn micromolds. European Journal of Pharmaceutics and Biopharmaceutics, 2015, 94, 11-19.	4.3	66
8	The construction of three-dimensional micro-fluidic scaffolds of biodegradable polymers by solvent vapor based bonding of micro-molded layers. Biomaterials, 2007, 28, 1174-1184.	11.4	61
9	Intracorneal injection of a detachable hybrid microneedle for sustained drug delivery. Acta Biomaterialia, 2018, 80, 48-57.	8.3	58
10	Spatially discrete thermal drawing of biodegradable microneedles for vascular drug delivery. European Journal of Pharmaceutics and Biopharmaceutics, 2013, 83, 224-233.	4.3	44
11	Perivascular biodegradable microneedle cuff for reduction of neointima formation after vascular injury. Journal of Controlled Release, 2014, 192, 174-181.	9.9	42
12	Transfer-molded wrappable microneedle meshes for perivascular drug delivery. Journal of Controlled Release, 2017, 268, 237-246.	9.9	41
13	Microneedle drug eluting balloon for enhanced drug delivery to vascular tissue. Journal of Controlled Release, 2020, 321, 174-183.	9.9	38
14	Combination of Irreversible Electroporation and STING Agonist for Effective Cancer Immunotherapy. Cancers, 2020, 12, 3123.	3.7	33
15	Photodeposited metal-semiconductor nanocomposites and their applications. Journal of Materiomics, 2018, 4, 83-94.	5.7	32
16	High-concentration dispersions of exfoliated MoS2 sheets stabilized by freeze-dried silk fibroin powder. Nano Research, 2016, 9, 1709-1722.	10.4	31
17	Rapidly Detachable Microneedles Using Porous Waterâ€Soluble Layer for Ocular Drug Delivery. Advanced Materials Technologies, 2020, 5, 1901145.	5.8	30
18	Membrane-reinforced three-dimensional electrospun silk fibroin scaffolds for bone tissue engineering. Biomedical Materials (Bristol), 2015, 10, 035011.	3.3	29

#	Article	IF	Citations
19	Depthwise-controlled scleral insertion of microneedles for drug delivery to the back of the eye. European Journal of Pharmaceutics and Biopharmaceutics, 2018, 133, 31-41.	4.3	29
20	Highly flexible and porous silk fibroin microneedle wraps for perivascular drug delivery. Journal of Controlled Release, 2021, 340, 125-135.	9.9	28
21	Rapid Extraction and Detection of Biomolecules via a Microneedle Array of Wetâ€Crosslinked Methacrylated Hyaluronic Acid. Advanced Materials Technologies, 2022, 7, 2100874.	5.8	25
22	Biodegradation-tunable mesoporous silica nanorods for controlled drug delivery. Materials Science and Engineering C, 2015, 50, 64-73.	7.3	24
23	Patterned Nanowire Electrode Array for Direct Extraction of Photosynthetic Electrons from Multiple Living Algal Cells. Advanced Functional Materials, 2016, 26, 7679-7689.	14.9	23
24	Coâ€Electrospun Silk Fibroin and Gelatin Methacryloyl Sheet Seeded with Mesenchymal Stem Cells for Tendon Regeneration. Small, 2022, 18, e2107714.	10.0	23
25	Fabrication of scalable and flexible bio-photoanodes by electrospraying thylakoid/graphene oxide composites. Applied Surface Science, 2019, 481, 1-9.	6.1	22
26	Microfabrication Technology of Biodegradable Polymers for Interconnecting Microstructures. Journal of Microelectromechanical Systems, 2006, 15, 1457-1465.	2.5	20
27	Controlled release of bupivacaine HCl through microchannels of biodegradable drug delivery device. Biomedical Microdevices, 2012, 14, 583-593.	2.8	18
28	Motionless Electrohydrodynamic (EHD) Printing of Biodegradable Polymer Micro Patterns. Microelectronic Engineering, 2016, 161, 43-51.	2.4	18
29	Direct modulus measurement of single composite nanofibers of silk fibroin/hydroxyapatite nanoparticles. Composites Science and Technology, 2016, 122, 113-121.	7.8	17
30	Random lasing from structurally-modulated silk fibroin nanofibers. Scientific Reports, 2017, 7, 4506.	3.3	17
31	Prolonged and highly efficient intracellular extraction of photosynthetic electrons from single algal cells by optimized nanoelectrode insertion. Nano Research, 2018, 11, 397-409.	10.4	17
32	Open micro-fluidic system for atomic force microscopy-guided in situ electrochemical probing of a single cell. Lab on A Chip, 2008, 8, 1460.	6.0	16
33	Microneedle-based minimally-invasive measurement of puncture resistance and fracture toughness of sclera. Acta Biomaterialia, 2016, 44, 286-294.	8.3	16
34	Thylakoid-Deposited Micro-Pillar Electrodes for Enhanced Direct Extraction of Photosynthetic Electrons. Nanomaterials, 2018, 8, 189.	4.1	16
35	A Parasitic Insensitive Catheter-Based Capacitive Force Sensor for Cardiovascular Diagnosis. IEEE Transactions on Biomedical Circuits and Systems, 2018, 12, 812-823.	4.0	15
36	Linear Micro-patterned Drug Eluting Balloon (LMDEB) for Enhanced Endovascular Drug Delivery. Scientific Reports, 2018, 8, 3666.	3.3	14

#	Article	IF	Citations
37	Resistive pressure sensor based on cylindrical micro structures in periodically ordered electrospun elastic fibers. Smart Materials and Structures, 2018, 27, 11LT01.	3.5	14
38	Enhanced interfacial electron transfer between thylakoids and RuO ₂ nanosheets for photosynthetic energy harvesting. Science Advances, 2021, 7, .	10.3	14
39	Selfâ€Plugging Microneedle (SPM) for Intravitreal Drug Delivery. Advanced Healthcare Materials, 2022, 11, e2102599.	7.6	14
40	Microchannel system for rate-controlled, sequential, and pH-responsive drug delivery. Acta Biomaterialia, 2018, 68, 249-260.	8.3	13
41	Three-Step Thermal Drawing for Rapid Prototyping of Highly Customizable Microneedles for Vascular Tissue Insertion. Pharmaceutics, 2019, 11, 100.	4.5	13
42	Insertion of Vertically Aligned Nanowires into Living Cells by Inkjet Printing of Cells. Small, 2016, 12, 1446-1457.	10.0	12
43	Scalable long-term extraction of photosynthetic electrons by simple sandwiching of nanoelectrode array with densely-packed algal cell film. Biosensors and Bioelectronics, 2018, 117, 15-22.	10.1	12
44	A Biodegradable Microneedle Cuff for Comparison of Drug Effects through Perivascular Delivery to Balloon-Injured Arteries. Polymers, 2017, 9, 56.	4.5	11
45	3D Printing of a miniature turbine blade model with an embedded fibre Bragg grating sensor for high-temperature monitoring. Virtual and Physical Prototyping, 2022, 17, 156-169.	10.4	11
46	Photosynthetic Nanomaterial Hybrids for Bioelectricity and Renewable Energy Systems. Advanced Materials, 2021, 33, e2005919.	21.0	10
47	Controlled Release of Growth Factors on Allograft Bone inÂvitro. Clinical Orthopaedics and Related Research, 2008, 466, 1905-1911.	1.5	9
48	Nanoprobe arrays for multiple single cell insertion using heterogeneous nanosphere lithography (HNSL). Nanoscale, 2013, 5, 7809.	5.6	9
49	Plasmon-stimulated biophotovoltaic cells based on thylakoidâ€“AuNR conjugates. Journal of Materials Chemistry A, 2020, 8, 24192-24203.	10.3	9
50	Cutting-Processed Single-Wall Carbon Nanotubes with Additional Edge Sites for Supercapacitor Electrodes. Nanomaterials, 2018, 8, 464.	4.1	8
51	Random lasing detection of structural transformation and compositions in silk fibroin scaffolds. Nano Research, 2019, 12, 289-297.	10.4	8
52	Fabrication of microgrooved scaffolds using near-field electrospinning-assisted lithography (NFEAL). Journal of Industrial and Engineering Chemistry, 2019, 80, 471-478.	5.8	7
53	Single Administration of a Biodegradable, Separable Microneedle Can Substitute for Repeated Application of Eyedrops in the Treatment of Infectious Keratitis. Advanced Healthcare Materials, 2021, 10, e2002287.	7.6	7
54	Three-Dimensional Rapid Prototyping of Multidirectional Polymer Nanoprobes for Single Cell Insertion. ACS Applied Materials & Interfaces, 2015, 7, 16873-16880.	8.0	6

#	Article	IF	Citations
55	Electrosprayed Thylakoidâ€“Alginate Film on a Micro-Pillar Electrode for Scalable Photosynthetic Energy Harvesting. ACS Applied Materials & Interfaces, 2020, 12, 54683-54693.	8.0	6
56	Photoelectric Silk via Genetic Encoding and Bioassisted Plasmonics. Advanced Biology, 2020, 4, e2000040.	3.0	6
57	Optimal Voltage and Electrical Pulse Conditions for Electrical Ablation to Induce Immunogenic Cell Death (ICD). Journal of Industrial and Engineering Chemistry, 2021, 94, 225-232.	5.8	6
58	Conductive thylakoid composites with mussel-adhesive protein-coated carbon nanotubes for harvesting photosynthetic electrons. Applied Surface Science, 2022, 575, 151697.	6.1	6
59	Extracting Photosynthetic Electrons from Thylakoids on Micro Pillar Electrode. International Journal of Precision Engineering and Manufacturing - Green Technology, 2018, 5, 631-636.	4.9	5
60	Three-dimensional biodegradable microscaffolding: Scaffold characterization and cell population at single cell resolution. Acta Biomaterialia, 2011, 7, 3325-3335.	8.3	4
61	Functionalized inclined-GaN based nanoneedles. Journal of Industrial and Engineering Chemistry, 2018, 59, 184-191.	5.8	4
62	A novel low-profile thin-film nitinol/silk endograft for treating small vascular diseases. , 2017, 105, 575-584.		3
63	A laser-driven optical atomizer: photothermal generation and transport of zeptoliter-droplets along a carbon nanotube deposited hollow optical fiber. Nanoscale, 2022, 14, 5138-5146.	5.6	3
64	Digitally-patterned nanoprobe arrays for single cell insertion enabled by wet tapping. RSC Advances, 2014, 4, 16655-16661.	3.6	2
65	Corneal Microneedles: Single Administration of a Biodegradable, Separable Microneedle Can Substitute for Repeated Application of Eyedrops in the Treatment of Infectious Keratitis (Adv.) Tj ETQq1 1 0.784314 rgBT /Overlock 10	4.6	2
66	Fabrication of Photocurable Hyaluronic Acid Coated Microneedle Sensor for Glucose Monitoring. ECS Meeting Abstracts, 2020, MA2020-01, 1876-1876.	0.0	2
67	Direct Harvesting of Photosynthetic Electrons from Plants and Algal Cells for Green Power Generation. , 2019, , .		1
68	A 1.35 m Long 0.18 gf Resolution Differential Capacitive Force Sensor for Contact Force Monitoring. , 2018, , .		0
69	Effect of Plasmon Stimulation on the Extraction of Photosynthetic Electrons from Thylakoid Membranes. ECS Meeting Abstracts, 2019, , .	0.0	0
70	Photosynthetic Electrochemical Cell Based on RuO2 Nanosheets Modified Bio-Anode. ECS Meeting Abstracts, 2020, MA2020-01, 2684-2684.	0.0	0