

WonHyoung Ryu

List of Publications by Year in descending order

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Version: 2024-02-01

70
papers

1,669
citations

304743

22
h-index

315739

38
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71
all docs

71
docs citations

71
times ranked

2324
citing authors

#	ARTICLE	IF	CITATIONS
1	Conductive thylakoid composites with mussel-adhesive protein-coated carbon nanotubes for harvesting photosynthetic electrons. <i>Applied Surface Science</i> , 2022, 575, 151697.	6.1	6
2	Rapid Extraction and Detection of Biomolecules via a Microneedle Array of Wet-Crosslinked Methacrylated Hyaluronic Acid. <i>Advanced Materials Technologies</i> , 2022, 7, 2100874.	5.8	25
3	A laser-driven optical atomizer: photothermal generation and transport of zeptoliter-droplets along a carbon nanotube deposited hollow optical fiber. <i>Nanoscale</i> , 2022, 14, 5138-5146.	5.6	3
4	Self-Plugging Microneedle (SPM) for Intravitreal Drug Delivery. <i>Advanced Healthcare Materials</i> , 2022, 11, e2102599.	7.6	14
5	3D Printing of a miniature turbine blade model with an embedded fibre Bragg grating sensor for high-temperature monitoring. <i>Virtual and Physical Prototyping</i> , 2022, 17, 156-169.	10.4	11
6	Co-Electrospun Silk Fibroin and Gelatin Methacryloyl Sheet Seeded with Mesenchymal Stem Cells for Tendon Regeneration. <i>Small</i> , 2022, 18, e2107714.	10.0	23
7	Photosynthetic Nanomaterial Hybrids for Bioelectricity and Renewable Energy Systems. <i>Advanced Materials</i> , 2021, 33, e2005919.	21.0	10
8	Optimal Voltage and Electrical Pulse Conditions for Electrical Ablation to Induce Immunogenic Cell Death (ICD). <i>Journal of Industrial and Engineering Chemistry</i> , 2021, 94, 225-232.	5.8	6
9	Single Administration of a Biodegradable, Separable Microneedle Can Substitute for Repeated Application of Eyedrops in the Treatment of Infectious Keratitis. <i>Advanced Healthcare Materials</i> , 2021, 10, e2002287.	7.6	7
10	Enhanced interfacial electron transfer between thylakoids and RuO ₂ nanosheets for photosynthetic energy harvesting. <i>Science Advances</i> , 2021, 7, .	10.3	14
11	Corneal Microneedles: Single Administration of a Biodegradable, Separable Microneedle Can Substitute for Repeated Application of Eyedrops in the Treatment of Infectious Keratitis (Adv.) <i>Tj ETQq1 1 0.784314.6gBT /Overlock 101</i>	7.6	7
12	Highly flexible and porous silk fibroin microneedle wraps for perivascular drug delivery. <i>Journal of Controlled Release</i> , 2021, 340, 125-135.	9.9	28
13	Non-transdermal microneedles for advanced drug delivery. <i>Advanced Drug Delivery Reviews</i> , 2020, 165-166, 41-59.	13.7	80
14	Plasmon-stimulated biophotovoltaic cells based on thylakoid-AuNR conjugates. <i>Journal of Materials Chemistry A</i> , 2020, 8, 24192-24203.	10.3	9
15	Combination of Irreversible Electroporation and STING Agonist for Effective Cancer Immunotherapy. <i>Cancers</i> , 2020, 12, 3123.	3.7	33
16	Electrosprayed Thylakoid-Alginate Film on a Micro-Pillar Electrode for Scalable Photosynthetic Energy Harvesting. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 54683-54693.	8.0	6
17	Photoelectric Silk via Genetic Encoding and Bioassisted Plasmonics. <i>Advanced Biology</i> , 2020, 4, e2000040.	3.0	6
18	Rapidly Detachable Microneedles Using Porous Water-Soluble Layer for Ocular Drug Delivery. <i>Advanced Materials Technologies</i> , 2020, 5, 1901145.	5.8	30

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19	Microneedle drug eluting balloon for enhanced drug delivery to vascular tissue. Journal of Controlled Release, 2020, 321, 174-183.	9.9	38
20	Fabrication of Photocurable Hyaluronic Acid Coated Microneedle Sensor for Glucose Monitoring. ECS Meeting Abstracts, 2020, MA2020-01, 1876-1876.	0.0	2
21	Photosynthetic Electrochemical Cell Based on RuO ₂ Nanosheets Modified Bio-Anode. ECS Meeting Abstracts, 2020, MA2020-01, 2684-2684.	0.0	0
22	Fabrication of microgrooved scaffolds using near-field electrospinning-assisted lithography (NFEAL). Journal of Industrial and Engineering Chemistry, 2019, 80, 471-478.	5.8	7
23	Fabrication of scalable and flexible bio-photoanodes by electro spraying thylakoid/graphene oxide composites. Applied Surface Science, 2019, 481, 1-9.	6.1	22
24	Three-Step Thermal Drawing for Rapid Prototyping of Highly Customizable Microneedles for Vascular Tissue Insertion. Pharmaceutics, 2019, 11, 100.	4.5	13
25	Direct Harvesting of Photosynthetic Electrons from Plants and Algal Cells for Green Power Generation. , 2019, , .		1
26	Random lasing detection of structural transformation and compositions in silk fibroin scaffolds. Nano Research, 2019, 12, 289-297.	10.4	8
27	Effect of Plasmon Stimulation on the Extraction of Photosynthetic Electrons from Thylakoid Membranes. ECS Meeting Abstracts, 2019, , .	0.0	0
28	Photodeposited metal-semiconductor nanocomposites and their applications. Journal of Materiomics, 2018, 4, 83-94.	5.7	32
29	Linear Micro-patterned Drug Eluting Balloon (LMDEB) for Enhanced Endovascular Drug Delivery. Scientific Reports, 2018, 8, 3666.	3.3	14
30	Microchannel system for rate-controlled, sequential, and pH-responsive drug delivery. Acta Biomaterialia, 2018, 68, 249-260.	8.3	13
31	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
32	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
33	Functionalized inclined-GaN based nanoneedles. Journal of Industrial and Engineering Chemistry, 2018, 59, 184-191.	5.8	4
34	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
35	A 1.35 m Long 0.18 gf Resolution Differential Capacitive Force Sensor for Contact Force Monitoring. , 2018, , .		0
36	Intracorneal injection of a detachable hybrid microneedle for sustained drug delivery. Acta Biomaterialia, 2018, 80, 48-57.	8.3	58

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37	Depthwise-controlled scleral insertion of microneedles for drug delivery to the back of the eye. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2018, 133, 31-41.	4.3	29
38	Resistive pressure sensor based on cylindrical micro structures in periodically ordered electrospun elastic fibers. <i>Smart Materials and Structures</i> , 2018, 27, 11LT01.	3.5	14
39	Scalable long-term extraction of photosynthetic electrons by simple sandwiching of nanoelectrode array with densely-packed algal cell film. <i>Biosensors and Bioelectronics</i> , 2018, 117, 15-22.	10.1	12
40	Thylakoid-Deposited Micro-Pillar Electrodes for Enhanced Direct Extraction of Photosynthetic Electrons. <i>Nanomaterials</i> , 2018, 8, 189.	4.1	16
41	Cutting-Processed Single-Wall Carbon Nanotubes with Additional Edge Sites for Supercapacitor Electrodes. <i>Nanomaterials</i> , 2018, 8, 464.	4.1	8
42	A Parasitic Insensitive Catheter-Based Capacitive Force Sensor for Cardiovascular Diagnosis. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2018, 12, 812-823.	4.0	15
43	A novel low-profile thin-film nitinol/silk endograft for treating small vascular diseases. , 2017, 105, 575-584.		3
44	Transfer-molded wrappable microneedle meshes for perivascular drug delivery. <i>Journal of Controlled Release</i> , 2017, 268, 237-246.	9.9	41
45	Random lasing from structurally-modulated silk fibroin nanofibers. <i>Scientific Reports</i> , 2017, 7, 4506.	3.3	17
46	A Biodegradable Microneedle Cuff for Comparison of Drug Effects through Perivascular Delivery to Balloon-Injured Arteries. <i>Polymers</i> , 2017, 9, 56.	4.5	11
47	Insertion of Vertically Aligned Nanowires into Living Cells by Inkjet Printing of Cells. <i>Small</i> , 2016, 12, 1446-1457.	10.0	12
48	Motionless Electrohydrodynamic (EHD) Printing of Biodegradable Polymer Micro Patterns. <i>Microelectronic Engineering</i> , 2016, 161, 43-51.	2.4	18
49	High-concentration dispersions of exfoliated MoS ₂ sheets stabilized by freeze-dried silk fibroin powder. <i>Nano Research</i> , 2016, 9, 1709-1722.	10.4	31
50	Microneedle-based minimally-invasive measurement of puncture resistance and fracture toughness of sclera. <i>Acta Biomaterialia</i> , 2016, 44, 286-294.	8.3	16
51	Patterned Nanowire Electrode Array for Direct Extraction of Photosynthetic Electrons from Multiple Living Algal Cells. <i>Advanced Functional Materials</i> , 2016, 26, 7679-7689.	14.9	23
52	Direct modulus measurement of single composite nanofibers of silk fibroin/hydroxyapatite nanoparticles. <i>Composites Science and Technology</i> , 2016, 122, 113-121.	7.8	17
53	Biodegradation-tunable mesoporous silica nanorods for controlled drug delivery. <i>Materials Science and Engineering C</i> , 2015, 50, 64-73.	7.3	24
54	Membrane-reinforced three-dimensional electrospun silk fibroin scaffolds for bone tissue engineering. <i>Biomedical Materials (Bristol)</i> , 2015, 10, 035011.	3.3	29

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55	Rapid and repeatable fabrication of high A/R silk fibroin microneedles using thermally-drawn micromolds. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2015, 94, 11-19.	4.3	66
56	Impact insertion of transfer-molded microneedle for localized and minimally invasive ocular drug delivery. <i>Journal of Controlled Release</i> , 2015, 209, 272-279.	9.9	71
57	Three-Dimensional Rapid Prototyping of Multidirectional Polymer Nanoprobes for Single Cell Insertion. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 16873-16880.	8.0	6
58	Digitally-patterned nanoprobe arrays for single cell insertion enabled by wet tapping. <i>RSC Advances</i> , 2014, 4, 16655-16661.	3.6	2
59	Perivascular biodegradable microneedle cuff for reduction of neointima formation after vascular injury. <i>Journal of Controlled Release</i> , 2014, 192, 174-181.	9.9	42
60	Mechanically-reinforced electrospun composite silk fibroin nanofibers containing hydroxyapatite nanoparticles. <i>Materials Science and Engineering C</i> , 2014, 40, 324-335.	7.3	145
61	Nanoprobe arrays for multiple single cell insertion using heterogeneous nanosphere lithography (HNSL). <i>Nanoscale</i> , 2013, 5, 7809.	5.6	9
62	Spatially discrete thermal drawing of biodegradable microneedles for vascular drug delivery. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2013, 83, 224-233.	4.3	44
63	Controlled release of bupivacaine HCl through microchannels of biodegradable drug delivery device. <i>Biomedical Microdevices</i> , 2012, 14, 583-593.	2.8	18
64	Three-dimensional biodegradable microscuffolding: Scaffold characterization and cell population at single cell resolution. <i>Acta Biomaterialia</i> , 2011, 7, 3325-3335.	8.3	4
65	Direct Extraction of Photosynthetic Electrons from Single Algal Cells by Nanoprobing System. <i>Nano Letters</i> , 2010, 10, 1137-1143.	9.1	75
66	Controlled Release of Growth Factors on Allograft Bone in Vitro. <i>Clinical Orthopaedics and Related Research</i> , 2008, 466, 1905-1911.	1.5	9
67	Open micro-fluidic system for atomic force microscopy-guided in situ electrochemical probing of a single cell. <i>Lab on A Chip</i> , 2008, 8, 1460.	6.0	16
68	The construction of three-dimensional micro-fluidic scaffolds of biodegradable polymers by solvent vapor based bonding of micro-molded layers. <i>Biomaterials</i> , 2007, 28, 1174-1184.	11.4	61
69	Biodegradable micro-osmotic pump for long-term and controlled release of basic fibroblast growth factor. <i>Journal of Controlled Release</i> , 2007, 124, 98-105.	9.9	80
70	Microfabrication Technology of Biodegradable Polymers for Interconnecting Microstructures. <i>Journal of Microelectromechanical Systems</i> , 2006, 15, 1457-1465.	2.5	20