

# Myunghwan Byun

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

70  
papers

4,300  
citations

29  
h-index

65  
g-index

76  
ext. papers

4,779  
ext. citations

10.4  
avg, IF

5.35  
L-index

#	Paper	IF	Citations
70	Ferroelectric Polymer Nanofibers Reminiscent of Morphotropic Phase Boundary Behavior for Improved Piezoelectric Energy Harvesting.. <i>Small</i> , <b>2022</b> , e2104472	11	1
69	Facile synthesis of Cd <sub>1-x</sub> Zn <sub>x</sub> Se <sub>1-y</sub> S <sub>y</sub> /CdSe/Cd <sub>1-x</sub> Zn <sub>x</sub> Se <sub>1-y</sub> S <sub>y</sub> nanoplatelets with precisely controlled emission wavelength. <i>Thin Solid Films</i> , <b>2022</b> , 751, 139218	2.2	
68	Ferroelectric Polymer Nanofibers Reminiscent of Morphotropic Phase Boundary Behavior for Improved Piezoelectric Energy Harvesting (Small 15/2022). <i>Small</i> , <b>2022</b> , 18, 2270072	11	
67	Transparent planar layer copper heaters for wearable electronics. <i>Applied Surface Science</i> , <b>2021</b> , 559, 149895	6.7	2
66	A 3D printing route to fabrication of ZrCuSi alloy target for ZrCuSiN nanocomposite thin films. <i>Applied Surface Science</i> , <b>2021</b> , 562, 150136	6.7	
65	Controlled self-assembly of block copolymers in printed sub-20 nm cross-bar structures. <i>Nanoscale Advances</i> , <b>2021</b> , 3, 5083-5089	5.1	
64	Hierarchically ordered hybrid nanostructures via spontaneous self-assembly of block copolymer blends. <i>Thin Solid Films</i> , <b>2020</b> , 701, 137928	2.2	
63	Thickness estimation of the silica-like thin layers via swelling-driven wrinkling instability. <i>Thin Solid Films</i> , <b>2020</b> , 697, 137812	2.2	1
62	Sintering Temperature Effect on the Luminescence Properties of Y <sub>2</sub> O <sub>3</sub> :Tb <sup>3+</sup> Phosphors Synthesized using a Liquid-Phase Reaction. <i>Journal of the Korean Physical Society</i> , <b>2020</b> , 77, 288-292	0.6	
61	Effect of Surface Roughness on the Formation of Nano-to-Micro Patterns Using Pattern Transfer Printing. <i>Journal of Korean Institute of Metals and Materials</i> , <b>2020</b> , 58, 26-31	1	
60	Highly flexible, transparent and conductive ultrathin silver film heaters for wearable electronics applications. <i>Thin Solid Films</i> , <b>2020</b> , 697, 137835	2.2	17
59	Thermally assisted nanotransfer printing with sub-20-nm resolution and 8-inch wafer scalability. <i>Science Advances</i> , <b>2020</b> , 6, eabb6462	14.3	15
58	Spontaneous capillary breakup of suspended gradient polymer stripes into spatially ordered dot arrays. <i>Applied Surface Science</i> , <b>2019</b> , 475, 1003-1009	6.7	4
57	Spatially Ordered Poly(3-hexylthiophene) Fibril Nanostructures via Controlled Evaporative Self-Assembly. <i>Advanced Materials Technologies</i> , <b>2019</b> , 4, 1800554	6.8	10
56	Pattern formation of metal-oxide hybrid nanostructures via the self-assembly of di-block copolymer blends. <i>Nanoscale</i> , <b>2019</b> , 11, 18559-18567	7.7	8
55	Characterization of Copper Graphite Composites Fabricated via Electrochemical Deposition and Spark Plasma Sintering. <i>Applied Sciences (Switzerland)</i> , <b>2019</b> , 9, 2853	2.6	6
54	Preparation of organic-inorganic nanocomposites using directly synthesized Br-functionalized nanocrystals. <i>Applied Surface Science</i> , <b>2019</b> , 475, 695-699	6.7	

53	Convenient and Robust Route to Photoswitchable Hierarchical Liquid Crystal Polymer Stripes via Flow-Enabled Self-Assembly. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 4961-4970	9.5	26
52	Poly(vinylpyrrolidone)-modification of sol-gel films for flexible piezoelectric energy harvesting systems. <i>Thin Solid Films</i> , <b>2018</b> , 663, 31-36	2.2	4
51	Harnessing Colloidal Crack Formation by Flow-Enabled Self-Assembly. <i>Angewandte Chemie - International Edition</i> , <b>2017</b> , 56, 4554-4559	16.4	27
50	Harnessing Colloidal Crack Formation by Flow-Enabled Self-Assembly. <i>Angewandte Chemie</i> , <b>2017</b> , 129, 4625-4630	3.6	4
49	Titelbild: Harnessing Colloidal Crack Formation by Flow-Enabled Self-Assembly (Angew. Chem. 16/2017). <i>Angewandte Chemie</i> , <b>2017</b> , 129, 4429-4429	3.6	2
48	Grayscale and Halftone Gel Lithography as Promising Techniques for Swelling-Induced Deformation of Smart Polymer Hydrogel Films. <i>Lecture Notes in Electrical Engineering</i> , <b>2017</b> , 122-125	0.2	1
47	A Nonconventional Approach to Patterned Nanoarrays of DNA Strands for Template-Assisted Assembly of Polyfluorene Nanowires. <i>Small</i> , <b>2016</b> , 12, 4254-63	11	11
46	Nanowires: A Nonconventional Approach to Patterned Nanoarrays of DNA Strands for Template-Assisted Assembly of Polyfluorene Nanowires (Small 31/2016). <i>Small</i> , <b>2016</b> , 12, 4160-4160	11	
45	Laser-induced phase separation of silicon carbide. <i>Nature Communications</i> , <b>2016</b> , 7, 13562	17.4	47
44	Stress-induced trench narrowing in Cu interconnect of sub-20 nm node: FEM simulation. <i>Materials Science in Semiconductor Processing</i> , <b>2016</b> , 56, 100-105	4.3	
43	Flexible one diode-one phase change memory array enabled by block copolymer self-assembly. <i>ACS Nano</i> , <b>2015</b> , 9, 4120-8	16.7	53
42	A hyper-stretchable elastic-composite energy harvester. <i>Advanced Materials</i> , <b>2015</b> , 27, 2866-75	24	281
41	Flexible piezoelectric thin-film energy harvesters and nanosensors for biomedical applications. <i>Advanced Healthcare Materials</i> , <b>2015</b> , 4, 646-58	10.1	187
40	Performance Enhancement of Electronic and Energy Devices via Block Copolymer Self-Assembly. <i>Advanced Materials</i> , <b>2015</b> , 27, 3982-98	24	79
39	Self-Structured Conductive Filament Nanoheater for Chalcogenide Phase Transition. <i>ACS Nano</i> , <b>2015</b> , 9, 6587-94	16.7	20
38	Highly-efficient, flexible piezoelectric PZT thin film nanogenerator on plastic substrates. <i>Advanced Materials</i> , <b>2014</b> , 26, 2514-20	24	538
37	Nanogenerators: Highly-Efficient, Flexible Piezoelectric PZT Thin Film Nanogenerator on Plastic Substrates (Adv. Mater. 16/2014). <i>Advanced Materials</i> , <b>2014</b> , 26, 2450-2450	24	9
36	Topographically-designed triboelectric nanogenerator via block copolymer self-assembly. <i>Nano Letters</i> , <b>2014</b> , 14, 7031-8	11.5	258

35	Plasmonic dye-sensitized solar cells incorporated with Au-TiO <sub>2</sub> nanostructures with tailored configurations. <i>Nanoscale</i> , <b>2014</b> , 6, 1823-32	7.7	94
34	Self-powered fully-flexible light-emitting system enabled by flexible energy harvester. <i>Energy and Environmental Science</i> , <b>2014</b> , 7, 4035-4043	35.4	144
33	Flexible crossbar-structured resistive memory arrays on plastic substrates via inorganic-based laser lift-off. <i>Advanced Materials</i> , <b>2014</b> , 26, 7480-7	24	102
32	Laser-induced solid-phase doped graphene. <i>ACS Nano</i> , <b>2014</b> , 8, 7671-7	16.7	41
31	Self-powered cardiac pacemaker enabled by flexible single crystalline PMN-PT piezoelectric energy harvester. <i>Advanced Materials</i> , <b>2014</b> , 26, 4880-7	24	445
30	Flexible Inorganic Piezoelectric Acoustic Nanosensors for Biomimetic Artificial Hair Cells. <i>Advanced Functional Materials</i> , <b>2014</b> , 24, 6914-6921	15.6	132
29	Sensors: Flexible Inorganic Piezoelectric Acoustic Nanosensors for Biomimetic Artificial Hair Cells (Adv. Funct. Mater. 44/2014). <i>Advanced Functional Materials</i> , <b>2014</b> , 24, 6898-6898	15.6	
28	Nanogenerators: Self-Powered Cardiac Pacemaker Enabled by Flexible Single Crystalline PMN-PT Piezoelectric Energy Harvester (Adv. Mater. 28/2014). <i>Advanced Materials</i> , <b>2014</b> , 26, 4754-4754	24	1
27	Flexible Electronics: Flexible Crossbar-Structured Resistive Memory Arrays on Plastic Substrates via Inorganic-Based Laser Lift-Off (Adv. Mater. 44/2014). <i>Advanced Materials</i> , <b>2014</b> , 26, 7418-7418	24	1
26	Swelling-driven rolling and anisotropic expansion of striped gel sheets. <i>Soft Matter</i> , <b>2013</b> , 9, 8264	3.6	68
25	An Unconventional Route to Hierarchically Ordered Block Copolymers on a Gradient Patterned Surface through Controlled Evaporative Self-Assembly. <i>Angewandte Chemie</i> , <b>2013</b> , 125, 1160-1165	3.6	2
24	An unconventional route to hierarchically ordered block copolymers on a gradient patterned surface through controlled evaporative self-assembly. <i>Angewandte Chemie - International Edition</i> , <b>2013</b> , 52, 1122-7	16.4	51
23	Large-scale hierarchically structured conjugated polymer assemblies with enhanced electrical conductivity. <i>Angewandte Chemie - International Edition</i> , <b>2013</b> , 52, 2564-8	16.4	72
22	Macroscopic highly aligned DNA nanowires created by controlled evaporative self-assembly. <i>ACS Nano</i> , <b>2013</b> , 7, 4326-33	16.7	55
21	Large-Scale Hierarchically Structured Conjugated Polymer Assemblies with Enhanced Electrical Conductivity. <i>Angewandte Chemie</i> , <b>2013</b> , 125, 2624-2628	3.6	11
20	A Simple Route to Hierarchically Assembled Micelles and Inorganic Nanoparticles. <i>Angewandte Chemie</i> , <b>2012</b> , 124, 12756-12760	3.6	21
19	A simple route to hierarchically assembled micelles and inorganic nanoparticles. <i>Angewandte Chemie - International Edition</i> , <b>2012</b> , 51, 12588-92	16.4	48
18	Designing responsive buckled surfaces by halftone gel lithography. <i>Science</i> , <b>2012</b> , 335, 1201-5	33.3	618

17	An unconventional route to high-efficiency dye-sensitized solar cells via embedding graphitic thin films into TiO <sub>2</sub> nanoparticle photoanode. <i>Nano Letters</i> , <b>2012</b> , 12, 479-85	11.5	142
16	SELF-ASSEMBLY OF HIGHLY ORDERED STRUCTURES ENABLED BY CONTROLLED EVAPORATION OF CONFINED MICROFLUIDS <b>2012</b> , 295-349		1
15	Assembling and positioning latex nanoparticles via controlled evaporative self-assembly. <i>Journal of Materials Chemistry</i> , <b>2011</b> , 21, 16968		57
14	Guided organization of DNA into microring arrays from liquid capillary bridges. <i>Small</i> , <b>2011</b> , 7, 1641-6	11	19
13	Micro-patterns of reduced graphene oxide (RG-O) platelets crafted by a self-assembled template. <i>Soft Matter</i> , <b>2011</b> , 7, 6811	3.6	7
12	Controlled evaporative self-assembly of hierarchically structured bottlebrush block copolymer with nanochannels. <i>Journal of Materials Chemistry</i> , <b>2011</b> , 21, 14248		29
11	Simple route to ridge optical waveguide fabricated via controlled evaporative self-assembly. <i>Journal of Materials Chemistry</i> , <b>2011</b> , 21, 5230		9
10	Hierarchically organized structures engineered from controlled evaporative self-assembly. <i>Nano Letters</i> , <b>2010</b> , 10, 3111-7	11.5	96
9	Hierarchically ordered structures enabled by controlled evaporative self-assembly. <i>Small</i> , <b>2010</b> , 6, 2250-51		36
8	Massively ordered microstructures composed of magnetic nanoparticles. <i>Journal of Physics Condensed Matter</i> , <b>2009</b> , 21, 264014	1.8	24
7	Robust Self-Assembly of Highly Ordered Complex Structures by Controlled Evaporation of Confined Microfluids. <i>Angewandte Chemie</i> , <b>2009</b> , 121, 520-524	3.6	13
6	Robust self-assembly of highly ordered complex structures by controlled evaporation of confined microfluids. <i>Angewandte Chemie - International Edition</i> , <b>2009</b> , 48, 512-6	16.4	94
5	Polystyrene-Poly(lactide) Bottlebrush Block Copolymer at the Air/Water Interface. <i>Macromolecules</i> , <b>2009</b> , 42, 9027-9033	5.5	36
4	Controlled evaporative self-assembly of hierarchically structured regioregular conjugated polymers. <i>Soft Matter</i> , <b>2009</b> , 5, 1583	3.6	69
3	Evaporative Organization of Hierarchically Structured Polymer Blend Rings. <i>Macromolecules</i> , <b>2008</b> , 41, 9312-9317	5.5	53
2	Self-assembling semicrystalline polymer into highly ordered, microscopic concentric rings by evaporation. <i>Langmuir</i> , <b>2008</b> , 24, 3525-31	4	42
1	Mesoscale Patterns Formed by Evaporation of a Polymer Solution in the Proximity of a Sphere on a Smooth Substrate: Molecular Weight and Curvature Effects. <i>Macromolecules</i> , <b>2007</b> , 40, 2831-2836	5.5	49