

# Howon Lee

## List of Publications by Year in descending order

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Version: 2024-02-01

37  
papers

4,254  
citations

331670

21  
h-index

434195

31  
g-index

38  
all docs

38  
docs citations

38  
times ranked

5421  
citing authors

#	ARTICLE	IF	CITATIONS
1	Ultralight, ultrastiff mechanical metamaterials. <i>Science</i> , 2014, 344, 1373-1377.	12.6	1,592
2	Multimaterial 4D Printing with Tailorable Shape Memory Polymers. <i>Scientific Reports</i> , 2016, 6, 31110.	3.3	751
3	Soft Robotic Manipulation and Locomotion with a 3D Printed Electroactive Hydrogel. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 17512-17518.	8.0	258
4	Design and optimization of a light-emitting diode projection micro-stereolithography three-dimensional manufacturing system. <i>Review of Scientific Instruments</i> , 2012, 83, 125001.	1.3	205
5	First jump of microgel; actuation speed enhancement by elastic instability. <i>Soft Matter</i> , 2010, 6, 4342.	2.7	204
6	4D printing reconfigurable, deployable and mechanically tunable metamaterials. <i>Materials Horizons</i> , 2019, 6, 1244-1250.	12.2	182
7	4D Printing of a Bioinspired Microneedle Array with Backward-Facing Barbs for Enhanced Tissue Adhesion. <i>Advanced Functional Materials</i> , 2020, 30, 1909197.	14.9	180
8	Micro 3D Printing of a Temperature-Responsive Hydrogel Using Projection Micro-Stereolithography. <i>Scientific Reports</i> , 2018, 8, 1963.	3.3	178
9	Recent advances in multi-material additive manufacturing: methods and applications. <i>Current Opinion in Chemical Engineering</i> , 2020, 28, 158-166.	7.8	130
10	Rapid multi-material 3D printing with projection micro-stereolithography using dynamic fluidic control. <i>Additive Manufacturing</i> , 2019, 27, 606-615.	3.0	106
11	Prescribed Pattern Transformation in Swelling Gel Tubes by Elastic Instability. <i>Physical Review Letters</i> , 2012, 108, 214304.	7.8	51
12	Tunable Multifunctional Thermal Metamaterials: Manipulation of Local Heat Flux via Assembly of Unit-Cell Thermal Shifters. <i>Scientific Reports</i> , 2017, 7, 41000.	3.3	48
13	Rapid Processing and Drug Evaluation in Glioblastoma Patient-Derived Organoid Models with 4D Bioprinted Arrays. <i>iScience</i> , 2020, 23, 101365.	4.1	46
14	Temperature-responsive thermal metamaterials enabled by modular design of thermally tunable unit cells. <i>International Journal of Heat and Mass Transfer</i> , 2019, 130, 469-482.	4.8	35
15	Self-Limiting Electrospray Deposition for the Surface Modification of Additively Manufactured Parts. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 20901-20911.	8.0	29
16	4D-Printed Transformable Tube Array for High-Throughput 3D Cell Culture and Histology. <i>Advanced Materials</i> , 2020, 32, e2004285.	21.0	26
17	Polytope Sector-Based Synthesis and Analysis of Microstructural Architectures With Tunable Thermal Conductivity and Expansion. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2016, 138, .	2.9	25
18	Improving Surface Roughness of Additively Manufactured Parts Using a Photopolymerization Model and Multi-Objective Particle Swarm Optimization. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 151.	2.5	25

#	ARTICLE	IF	CITATIONS
19	Rapid Pulsed Light Sintering of Silver Nanowires on Woven Polyester for personal thermal management with enhanced performance, durability and cost-effectiveness. Scientific Reports, 2018, 8, 17159.	3.3	24
20	Layer-by-layer assembled carbon nanotube-polyethyleneimine coatings inside copper-sintered heat pipes for enhanced thermal performance. Carbon, 2018, 140, 521-532.	10.3	23
21	Modeling of fiber-reinforced polymeric gels. Mechanics Research Communications, 2019, 96, 7-18.	1.8	22
22	Solvent-driven polymeric micro beam device. Journal of Micromechanics and Microengineering, 2010, 20, 085030.	2.6	21
23	Micro 3D Printing Using a Digital Projector and its Application in the Study of Soft Materials Mechanics. Journal of Visualized Experiments, 2012, , e4457.	0.3	20
24	Multimaterial Printing for Cephalopod-Inspired Light-Responsive Artificial Chromatophores. ACS Applied Materials & Interfaces, 2021, 13, 12735-12745.	8.0	19
25	A highly sensitive, direct and label-free technique for Hg <sup>2+</sup> detection using Kelvin probe force microscopy. Nanotechnology, 2015, 26, 305501.	2.6	18
26	High resolution stereolithography fabrication of perfusable scaffolds to enable long-term meso-scale hepatic culture for disease modeling. Biofabrication, 2021, 13, 045024.	7.1	12
27	Experiments and modeling of the thermo-mechanically coupled behavior of VHB. International Journal of Solids and Structures, 2022, 242, 111523.	2.7	7
28	Ultra-sensitive detection of zinc oxide nanowires using a quartz crystal microbalance and phosphoric acid DNA. Nanotechnology, 2016, 27, 365501.	2.6	5
29	Spatial Uncertainty Modeling for Surface Roughness of Additively Manufactured Microstructures via Image Segmentation. Applied Sciences (Switzerland), 2019, 9, 1093.	2.5	4
30	Highly sensitive, direct and real-time detection of silver nanowires by using a quartz crystal microbalance. Nanotechnology, 2016, 27, 475506.	2.6	2
31	Design, Development and Evaluation of a Two Way Actuated Steerable Needle. , 2015, , .		1
32	Projection Micro-Stereolithography of Temperature Responsive Mechanically Tough Hydrogels. , 2016, , .		1
33	Biomimetic Microactuator Powered by Polymer Swelling. , 2008, , .		0
34	Polytope Sector-Based Synthesis and Analysis of Microarchitected Materials With Tunable Thermal Conductivity and Expansion. , 2015, , .		0
35	Lightweight Microlattice With Tunable Mechanical Properties Using 3D Printed Shape Memory Polymer. , 2018, , .		0
36	Coupled Non-Fickian Diffusion and Large Deformation of Hydrogels. Conference Proceedings of the Society for Experimental Mechanics, 2011, , 25-28.	0.5	0

#	ARTICLE	IF	CITATIONS
37	Abstract 2691: 4D printing of programmable smart material for drug screening in patient-derived organoids. , 2019, , .		0