

Hyun-Taek Lee

List of Publications by Citations

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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.

91
papers

4,698
citations

38
h-index

67
g-index

95
ext. papers

5,548
ext. citations

6
avg, IF

5.95
L-index

#	Paper	IF	Citations
91	A flexible and highly sensitive strain-gauge sensor using reversible interlocking of nanofibres. <i>Nature Materials</i> , 2012 , 11, 795-801	27	1227
90	Review of biomimetic underwater robots using smart actuators. <i>International Journal of Precision Engineering and Manufacturing</i> , 2012 , 13, 1281-1292	1.7	227
89	A comparison of energy consumption in bulk forming, subtractive, and additive processes: Review and case study. <i>International Journal of Precision Engineering and Manufacturing - Green Technology</i> , 2014 , 1, 261-279	3.8	201
88	Review of manufacturing processes for soft biomimetic robots. <i>International Journal of Precision Engineering and Manufacturing</i> , 2009 , 10, 171-181	1.7	182
87	Shape Memory Alloy-Based Soft Gripper with Variable Stiffness for Compliant and Effective Grasping. <i>Soft Robotics</i> , 2017 , 4, 379-389	9.2	137
86	Review: Developments in micro/nanoscale fabrication by focused ion beams. <i>Vacuum</i> , 2012 , 86, 1014-1035	3.7	125
85	Hybrid manufacturing in micro/nano scale: A Review. <i>International Journal of Precision Engineering and Manufacturing - Green Technology</i> , 2014 , 1, 75-92	3.8	119
84	Locomotion of inchworm-inspired robot made of smart soft composite (SSC). <i>Bioinspiration and Biomimetics</i> , 2014 , 9, 046006	2.6	118
83	An Overview of Shape Memory Alloy-Coupled Actuators and Robots. <i>Soft Robotics</i> , 2017 , 4, 3-15	9.2	111
82	Deposition mechanism of dry sprayed ceramic particles at room temperature using a nano-particle deposition system. <i>Acta Materialia</i> , 2011 , 59, 2693-2703	8.4	110
81	Smart soft composite: An integrated 3D soft morphing structure using bend-twist coupling of anisotropic materials. <i>International Journal of Precision Engineering and Manufacturing</i> , 2012 , 13, 631-634	1.7	86
80	A review of electrically-assisted manufacturing. <i>International Journal of Precision Engineering and Manufacturing - Green Technology</i> , 2015 , 2, 365-376	3.8	83
79	Soft Tendril-Inspired Grippers: Shape Morphing of Programmable Polymer-Paper Bilayer Composites. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 10419-10427	9.5	80
78	A turtle-like swimming robot using a smart soft composite (SSC) structure. <i>Smart Materials and Structures</i> , 2013 , 22, 014007	3.4	78
77	Empirical power-consumption model for material removal in three-axis milling. <i>Journal of Cleaner Production</i> , 2014 , 78, 54-62	10.3	72
76	Direct printing of highly sensitive, stretchable, and durable strain sensor based on silver nanoparticles/multi-walled carbon nanotubes composites. <i>Composites Part B: Engineering</i> , 2019 , 161, 395-401	10	68
75	Curved shape memory alloy-based soft actuators and application to soft gripper. <i>Composite Structures</i> , 2017 , 176, 398-406	5.3	61

74	Soft morphing hand driven by SMA tendon wire. <i>Composites Part B: Engineering</i> , 2016 , 105, 138-148	10	60
73	35 Hz shape memory alloy actuator with bending-twisting mode. <i>Scientific Reports</i> , 2016 , 6, 21118	4.9	60
72	Control of machining parameters for energy and cost savings in micro-scale drilling of PCBs. <i>Journal of Cleaner Production</i> , 2013 , 54, 41-48	10.3	58
71	Geometric optimization of micro drills using Taguchi methods and response surface methodology. <i>International Journal of Precision Engineering and Manufacturing</i> , 2011 , 12, 871-875	1.7	56
70	An overview on the cellulose based conducting composites. <i>Composites Part B: Engineering</i> , 2012 , 43, 2822-2826	10	54
69	Soft composite hinge actuator and application to compliant robotic gripper. <i>Composites Part B: Engineering</i> , 2016 , 98, 397-405	10	53
68	Smart soft composite actuator with shape retention capability using embedded fusible alloy structures. <i>Composites Part B: Engineering</i> , 2015 , 78, 507-514	10	53
67	Deployable Soft Composite Structures. <i>Scientific Reports</i> , 2016 , 6, 20869	4.9	51
66	From design for manufacturing (DFM) to manufacturing for design (MFD) via hybrid manufacturing and smart factory: A review and perspective of paradigm shift. <i>International Journal of Precision Engineering and Manufacturing - Green Technology</i> , 2016 , 3, 209-222	3.8	51
65	A review on fabrication processes for electrochromic devices. <i>International Journal of Precision Engineering and Manufacturing - Green Technology</i> , 2016 , 3, 397-421	3.8	49
64	Effect of stand-off distance for cold gas spraying of fine ceramic particles (. <i>Surface and Coatings Technology</i> , 2012 , 206, 2125-2132	4.4	49
63	Blooming Knit Flowers: Loop-Linked Soft Morphing Structures for Soft Robotics. <i>Advanced Materials</i> , 2017 , 29, 1606580	24	46
62	SMA-based smart soft composite structure capable of multiple modes of actuation. <i>Composites Part B: Engineering</i> , 2015 , 82, 152-158	10	44
61	An evaluation of green manufacturing technologies based on research databases. <i>International Journal of Precision Engineering and Manufacturing - Green Technology</i> , 2014 , 1, 5-9	3.8	44
60	Fabrication of transparent superhydrophobic surface on thermoplastic polymer using laser beam machining and compression molding for mass production. <i>CIRP Annals - Manufacturing Technology</i> , 2014 , 63, 525-528	4.9	42
59	Shape memory alloy/glass fiber woven composite for soft morphing winglets of unmanned aerial vehicles. <i>Composite Structures</i> , 2016 , 140, 202-212	5.3	41
58	Design and Fabrication of Soft Morphing Ray Propulsor: Undulator and Oscillator. <i>Soft Robotics</i> , 2017 , 4, 49-60	9.2	40
57	Cross-shaped twisting structure using SMA-based smart soft composite. <i>International Journal of Precision Engineering and Manufacturing - Green Technology</i> , 2014 , 1, 153-156	3.8	40

56	From 3D to 4D printing Design, material and fabrication for multi-functional multi-materials. <i>International Journal of Precision Engineering and Manufacturing - Green Technology</i> , 2017 , 4, 291-299	3.8	40
55	Fabrication of wrist-like SMA-based actuator by double smart soft composite casting. <i>Smart Materials and Structures</i> , 2015 , 24, 125003	3.4	39
54	Woven type smart soft composite for soft morphing car spoiler. <i>Composites Part B: Engineering</i> , 2016 , 86, 285-298	10	38
53	Nano-particle deposition system (NPDS): Low energy solvent-free dry spray process for direct patterning of metals and ceramics at room temperature. <i>International Journal of Precision Engineering and Manufacturing</i> , 2012 , 13, 1107-1112	1.7	34
52	A smart soft actuator using a single shape memory alloy for twisting actuation. <i>Smart Materials and Structures</i> , 2015 , 24, 125033	3.4	32
51	Low-cost fabrication of WO ₃ films using a room temperature and low-vacuum air-spray based deposition system for inorganic electrochromic device applications. <i>Thin Solid Films</i> , 2015 , 589, 412-418	2.2	31
50	Shape Memory Alloy (SMA)-Based Microscale Actuators with 60% Deformation Rate and 1.6 kHz Actuation Speed. <i>Small</i> , 2018 , 14, e1801023	11	31
49	Stretchable Biaxial and Shear Strain Sensors Using Diffractive Structural Colors. <i>ACS Nano</i> , 2020 , 14, 53926-53927	26	27
48	Aerodynamically focused nanoparticle (AFN) printing: novel direct printing technique of solvent-free and inorganic nanoparticles. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 16466-71	9.5	24
47	Direct Printing of Strain Sensors via Nanoparticle Printer for the Applications to Composite Structural Health Monitoring. <i>Procedia CIRP</i> , 2017 , 66, 238-242	1.8	24
46	Shape memory textile composites with multi-mode actuations for soft morphing skins. <i>Composites Part B: Engineering</i> , 2020 , 198, 108170	10	22
45	Room temperature deposition of TiO ₂ using nano particle deposition system (NPDS): Application to dye-sensitized solar cell (DSSC). <i>International Journal of Precision Engineering and Manufacturing</i> , 2011 , 12, 749-752	1.7	21
44	Shape Memory Alloy-Based Soft Finger with Changeable Bending Length Using Targeted Variable Stiffness. <i>Soft Robotics</i> , 2020 , 7, 283-291	9.2	21
43	Design and analysis of a smart soft composite structure for various modes of actuation. <i>Composites Part B: Engineering</i> , 2016 , 95, 155-165	10	20
42	Comparison of mold designs for SMA-based twisting soft actuator. <i>Sensors and Actuators A: Physical</i> , 2016 , 237, 96-106	3.9	18
41	Novel fabrication of an electrochromic antimony-doped tin oxide film using a nanoparticle deposition system. <i>Applied Surface Science</i> , 2016 , 377, 370-375	6.7	18
40	Nanoscale 3D printing process using aerodynamically focused nanoparticle (AFN) printing, micro-machining, and focused ion beam (FIB). <i>CIRP Annals - Manufacturing Technology</i> , 2015 , 64, 523-526	4.9	17
39	Laser-assisted nano particle deposition system and its application for dye sensitized solar cell fabrication. <i>CIRP Annals - Manufacturing Technology</i> , 2012 , 61, 575-578	4.9	17

38	Fabrication and reliable implementation of an ionic polymer-metal composite (IPMC) biaxial bending actuator. <i>Smart Materials and Structures</i> , 2011 , 20, 105026	3.4	16
37	Highly Sensitive Solvent-free Silver Nanoparticle Strain Sensors with Tunable Sensitivity Created Using an Aerodynamically Focused Nanoparticle Printer. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 26421-26432	9.5	15
36	Woven type smart soft composite beam with in-plane shape retention. <i>Smart Materials and Structures</i> , 2013 , 22, 125007	3.4	14
35	Direct printing of anisotropic wetting patterns using aerodynamically focused nanoparticle (AFN) printing. <i>Applied Surface Science</i> , 2017 , 396, 1450-1457	6.7	13
34	Effect of backstitch tool path on micro-drilling of printed circuit board. <i>Precision Engineering</i> , 2014 , 38, 691-696	2.9	13
33	Microtentacle Actuators Based on Shape Memory Alloy Smart Soft Composite. <i>Advanced Functional Materials</i> , 2020 , 30, 2002510	15.6	12
32	Flexible ceramic-elastomer composite piezoelectric energy harvester fabricated by additive manufacturing. <i>Journal of Composite Materials</i> , 2016 , 50, 1573-1579	2.7	12
31	Advanced scanning paths for focused ion beam milling. <i>Vacuum</i> , 2017 , 143, 40-49	3.7	10
30	Colour-tunable 50% strain sensor using surface-nanopatterning of soft materials via nanoimprinting with focused ion beam milling process. <i>CIRP Annals - Manufacturing Technology</i> , 2019 , 68, 595-598	4.9	10
29	Laser Controlled 65 Micrometer Long Microrobot Made of Ni-Ti Shape Memory Alloy. <i>Advanced Materials Technologies</i> , 2019 , 4, 1900583	6.8	10
28	Pulse width modulation as energy-saving strategy of shape memory alloy based smart soft composite actuator. <i>International Journal of Precision Engineering and Manufacturing</i> , 2017 , 18, 895-901	1.7	10
27	Resistive pressure sensor based on cylindrical micro structures in periodically ordered electrospun elastic fibers. <i>Smart Materials and Structures</i> , 2018 , 27, 11LT01	3.4	10
26	Design and evaluation of micro-cutting tools for local planarization. <i>International Journal of Precision Engineering and Manufacturing</i> , 2016 , 17, 1267-1273	1.7	8
25	Shape memory alloy (SMA)-based head and neck immobilizer for radiotherapy. <i>Journal of Computational Design and Engineering</i> , 2015 , 2, 176-182	4.6	8
24	Deposition of TiO ₂ layers for dye-sensitized solar cells using nano-particle deposition system. <i>Current Applied Physics</i> , 2011 , 11, S122-S126	2.6	8
23	Simulation of electrical conductivity for nanoparticles and nanotubes composite sensor according to geometrical properties of nanomaterials. <i>Composites Part B: Engineering</i> , 2019 , 174, 107003	10	7
22	Hybrid composite actuator with shape retention capability for morphing flap of unmanned aerial vehicle (UAV). <i>Composite Structures</i> , 2020 , 243, 112227	5.3	7
21	Direct printing of performance tunable strain sensor via nanoparticle laser patterning process. <i>Virtual and Physical Prototyping</i> , 2020 , 15, 265-277	10.1	6

20	Room-Temperature Fabrication of a Flexible Thermoelectric Generator Using a Dry-Spray Deposition System. <i>Journal of Electronic Materials</i> , 2016 , 45, 2286-2290	1.9	6
19	Microstructural Control of the Electrochromic and Ion Storage Layers on the Performance of an Electrochromic Device Fabricated by the Kinetic Spray Technique. <i>International Journal of Precision Engineering and Manufacturing - Green Technology</i> , 2018 , 5, 231-238	3.8	6
18	Low-voltage modulated inorganic smart windows using solid polymer electrolyte. <i>Solar Energy Materials and Solar Cells</i> , 2019 , 200, 109966	6.4	5
17	Crack-free fabrication of Prussian blue-based blending film for the dramatic enhancement of dual electrochromic device. <i>Ceramics International</i> , 2020 , 46, 21008-21013	5.1	5
16	Shape Memory Alloy-Based Microscale Bending Actuator Fabricated by a Focused Ion Beam Chemical Vapor Deposition (FIB-CVD) Gap-Filling Process. <i>International Journal of Precision Engineering and Manufacturing</i> , 2020 , 21, 491-498	1.7	5
15	Site-specific characterization of beetle horn shell with micromechanical bending test in focused ion beam system. <i>Acta Biomaterialia</i> , 2017 , 57, 395-403	10.8	4
14	Cellulose nanofiber assisted deposition of titanium dioxide on fluorine-doped tin oxide glass. <i>RSC Advances</i> , 2014 , 4, 987-991	3.7	4
13	Effect of laser-excited ceramic nanoparticles on hardness and porosity of dry-sprayed coating. <i>CIRP Annals - Manufacturing Technology</i> , 2017 , 66, 519-522	4.9	4
12	CAD/CAM for scalable nanomanufacturing: A network-based system for hybrid 3D printing. <i>Microsystems and Nanoengineering</i> , 2017 , 3, 17072	7.7	4
11	Design and development of bio-mimetic soft robotic hand with shape memory alloy 2015 ,		4
10	Precise glass microstructuring with laser induced backside wet etching using error-compensating scan path. <i>Journal of Materials Processing Technology</i> , 2021 , 291, 117046	5.3	3
9	Alignment Algorithm for Nano-scale Three-dimensional Printing System. <i>Journal of the Korean Society for Precision Engineering</i> , 2014 , 31, 1101-1106	0.3	2
8	Directly Printed Low-Cost Nanoparticle Sensor for Vibration Measurement during Milling Process. <i>Materials</i> , 2020 , 13,	3.5	2
7	Bio-inspired deposition of silver nano-particles (AgNPs) on silicon substrate. <i>Materials Letters</i> , 2014 , 116, 175-177	3.3	1
6	Simulation of dynamic growth rate of focused ion beam-induced deposition using Hausdorff distance. <i>Sensors and Actuators A: Physical</i> , 2019 , 286, 169-177	3.9	1
5	Shape memory alloy-driven undulatory locomotion of a soft biomimetic ray robot. <i>Bioinspiration and Biomimetics</i> , 2021 , 16,	2.6	1
4	Superhydrophobicity and corrosion resistance of AISI 4140 mold made through nanosecond laser texturing. <i>International Journal of Advanced Manufacturing Technology</i> , 2022 , 119, 5119	3.2	0
3	Microtentacle Actuators: Microtentacle Actuators Based on Shape Memory Alloy Smart Soft Composite (Adv. Funct. Mater. 34/2020). <i>Advanced Functional Materials</i> , 2020 , 30, 2070231	15.6	0

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| 2 | A Multiscale Adhesion Model for Deposition Prediction in Laser Enhanced Nanoparticle Deposition Process. <i>Acta Materialia</i> , 2021 , 208, 116740 | 8.4 | o |
| 1 | 50 nm Scale Alignment Method for Hybrid Manufacturing Processes for Full 3D Structuring. <i>International Journal of Precision Engineering and Manufacturing</i> , 2020 , 21, 2407-2417 | 1.7 | |