Seung Hwan Ko

List of Publications by Year in Descending Order

232 papers	13,718 citations	58 h-index	112 g-index
255 ext. papers	16,057 ext. citations	8.8 avg, IF	6.56 L-index

#	Paper	IF	Citations
232	Facile fabrication of flexible metal grid transparent electrode using inkjet-printed dot array as sacrificial layer.. *Scientific Reports*, **2022**, 12, 1572	4.9	
231	Challenges and Strategies in Developing an Enzymatic Wearable Sweat Glucose Biosensor as a Practical Point-Of-Care Monitoring Tool for Type II Diabetes.. *Nanomaterials*, **2022**, 12,	5.4	8
230	Soft multi-modal thermoelectric skin for dual functionality of underwater energy harvesting and thermoregulation. *Nano Energy*, **2022**, 95, 107002	17.1	4
229	Multi-Bandgap Monolithic Metal Nanowire Percolation Network Sensor Integration by Reversible Selective Laser-Induced Redox.. *Nano-Micro Letters*, **2022**, 14, 49	19.5	3
228	Monolithic digital patterning of polyimide by laser-induced pyrolytic jetting. *Chemical Engineering Journal*, **2022**, 428, 131050	14.7	3
227	Recent Advances in 1D Nanomaterial-Based Bioelectronics for Healthcare Applications. *Advanced NanoBiomed Research*, **2022**, 2, 2270025	0	
226	Recent Advances in 1D Nanomaterial-Based Bioelectronics for Healthcare Applications. *Advanced NanoBiomed Research*, **2022**, 2, 2100111	0	3
225	Metal nanowire based electronic devices **2021**,		
224	Transparent Air Filters with Active Thermal Sterilization. *Nano Letters*, **2021**,	11.5	8
223	Advances in air filtration technologies: structure-based and interaction-based approaches. *Materials Today Advances*, **2021**, 9, 100134	7.4	20
222	Preface for the Soft and Green Manufacturing and Applications. *International Journal of Precision Engineering and Manufacturing - Green Technology*, **2021**, 8, 743-744	3.8	
221	Metallic Nanowire Coupled CsPbBr3 Quantum Dots Plasmonic Nanolaser. *Advanced Functional Materials*, **2021**, 31, 2102375	15.6	9
220	From Chaos to Control: Programmable Crack Patterning with Molecular Order in Polymer Substrates. *Advanced Materials*, **2021**, 33, e2008434	24	4
219	Energy Harvesting Untethered Soft Electronic Devices. *Advanced Healthcare Materials*, **2021**, 10, e2002286	10.1	6
218	Recent advances in liquid-metal-based wearable electronics and materials. *IScience*, **2021**, 24, 102698	6.1	17
217	Digital Laser Micropainting for Reprogrammable Optoelectronic Applications. *Advanced Functional Materials*, **2021**, 31, 2006854	15.6	4
216	Transparent Soft Actuators/Sensors and Camouflage Skins for Imperceptible Soft Robotics. *Advanced Materials*, **2021**, 33, e2002397	24	39

215	Smart Stretchable Electronics for Advanced Human Machine Interface. *Advanced Intelligent Systems*, **2021**, 3, 2000157	6	12
214	Advances in protective layer-coating on metal nanowires with enhanced stability and their applications. *Applied Materials Today*, **2021**, 22, 100909	6.6	11
213	Monolithic digital patterning of polydimethylsiloxane with successive laser pyrolysis. *Nature Materials*, **2021**, 20, 100-107	27	28
212	Highly stable silver-platinum core-shell nanowires for HO detection. *Nanoscale*, **2021**, 13, 13129-13141	7.7	3
211	Reversible, Selective, Ultrawide-Range Variable Stiffness Control by Spatial Micro-Water Molecule Manipulation. *Advanced Science*, **2021**, 8, e2102536	13.6	1
210	Biomimetic chameleon soft robot with artificial crypsis and disruptive coloration skin. *Nature Communications*, **2021**, 12, 4658	17.4	21
209	Dynamic Pore Modulation of Stretchable Electrospun Nanofiber Filter for Adaptive Machine Learned Respiratory Protection. *ACS Nano*, **2021**, 15, 15730-15740	16.7	8
208	Functional Materials and Devices for XR (VR/AR/MR) Applications. *Advanced Functional Materials*, **2021**, 31, 2106546	15.6	8
207	Significant thermoelectric conversion efficiency enhancement of single layer graphene with substitutional silicon dopants. *Nano Energy*, **2021**, 87, 106188	17.1	5
206	High-temperature, thin, flexible and transparent Ni-based heaters patterned by laser-induced reductive sintering on colorless polyimide. *Journal of Materials Chemistry C*, **2021**, 9, 5652-5661	7.1	4
205	A Liquid Metal Based Multimodal Sensor and Haptic Feedback Device for Thermal and Tactile Sensation Generation in Virtual Reality. *Advanced Functional Materials*, **2020**, 31, 2007772	15.6	23
204	Recent progress in controlled nano/micro cracking as an alternative nano-patterning method for functional applications. *Nanoscale Horizons*, **2020**, 5, 1036-1049	10.8	9
203	Operation Range-Optimized Silver Nanowire Through Junction Treatment. *Electronic Materials Letters*, **2020**, 16, 491-497	2.9	3
202	Highly stretchable and oxidation-resistive Cu nanowire heater for replication of the feeling of heat in a virtual world. *Journal of Materials Chemistry A*, **2020**, 8, 8281-8291	13	30
201	Highly Customizable Transparent Silver Nanowire Patterning via Inkjet-Printed Conductive Polymer Templates Formed on Various Surfaces. *Advanced Materials Technologies*, **2020**, 5, 2000042	6.8	21
200	Recent Progress in Transparent Conductors Based on Nanomaterials: Advancements and Challenges. *Advanced Materials Technologies*, **2020**, 5, 1900939	6.8	20
199	Stretchable Skin-Like Cooling/Heating Device for Reconstruction of Artificial Thermal Sensation in Virtual Reality. *Advanced Functional Materials*, **2020**, 30, 1909171	15.6	31
198	A deep-learned skin sensor decoding the epicentral human motions. *Nature Communications*, **2020**, 11, 2149	17.4	60

197	Sensitive Wearable Temperature Sensor with Seamless Monolithic Integration. *Advanced Materials*, **2020**, 32, e1905527	24	103
196	Biohybrid Actuators for Soft Robotics: Challenges in Scaling Up. *Actuators*, **2020**, 9, 96	2.4	9
195	Laser-Induced Crystalline-Phase Transformation for Hematite Nanorod Photoelectrochemical Cells. *ACS Applied Materials & Interfaces*, **2020**, 12, 48917-48927	9.5	4
194	Thermally Controlled, Active Imperceptible Artificial Skin in Visible-to-Infrared Range. *Advanced Functional Materials*, **2020**, 30, 2003328	15.6	22
193	Thermo-Haptic Materials and Devices for Wearable Virtual and Augmented Reality. *Advanced Functional Materials*, **2020**, 31, 2007376	15.6	11
192	Biocompatible Cost-Effective Electrophysiological Monitoring with Oxidation-Free Cu□Au Core□Shell Nanowire. *Advanced Materials Technologies*, **2020**, 5, 2000661	6.8	9
191	70-2: Low Temperature Process and Material Development for Flexible/Stretchable Transparent Conductor. *Digest of Technical Papers SID International Symposium*, **2020**, 51, 1044-1047	0.5	
190	Selective Photo-thermal Conversion of Tungsten Oxide Sol Precursor for Electrochromic Smart Window Applications. *Acta Materialia*, **2020**, 201, 528-534	8.4	7
189	Shape morphing smart 3D actuator materials for micro soft robot. *Materials Today*, **2020**, 41, 243-269	21.8	45
188	Mechano-thermo-chromic device with supersaturated salt hydrate crystal phase change. *Science Advances*, **2019**, 5, eaav4916	14.3	15
187	Semipermanent Copper Nanowire Network with an Oxidation-Proof Encapsulation Layer. *Advanced Materials Technologies*, **2019**, 4, 1800422	6.8	17
186	A Review on Hierarchical Origami and Kirigami Structure for Engineering Applications. *International Journal of Precision Engineering and Manufacturing - Green Technology*, **2019**, 6, 147-161	3.8	31
185	Boosted thermal conductance of polycrystalline graphene by spin-coated silver nanowires. *International Journal of Heat and Mass Transfer*, **2019**, 134, 547-553	4.9	7
184	Transparent wearable three-dimensional touch by self-generated multiscale structure. *Nature Communications*, **2019**, 10, 2582	17.4	36
183	Graphene as a material for energy generation and control: Recent progress in the control of graphene thermal conductivity by graphene defect engineering. *Materials Today Energy*, **2019**, 12, 431-442	7	35
182	Thermal conductivity reduction of multilayer graphene with fine grain sizes. *JMST Advances*, **2019**, 1, 191-195	1.9	4
181	Interfacial Thermal Contact Conductance inside the Graphene□Bi2Te3 Heterostructure. *Advanced Materials Interfaces*, **2019**, 6, 1900275	4.6	7
180	Moiré□Free Imperceptible and Flexible Random Metal Grid Electrodes with Large Figure-of-Merit by Photonic Sintering Control of Copper Nanoparticles. *ACS Applied Materials & Interfaces*, **2019**, 11, 15773-15780	9.5	20

179	Bending-durable membrane-electrode assembly using metal nanowires for bendable polymer electrolyte membrane fuel cell. *Energy*, **2019**, 172, 874-880	7.9	8
178	Significant thermal conductivity reduction of CVD graphene with relatively low hole densities fabricated by focused ion beam processing. *Applied Physics Letters*, **2019**, 114, 051905	3.4	5
177	Flexible resistive pressure sensor with silver nanowire networks embedded in polymer using natural formation of air gap. *Composites Science and Technology*, **2019**, 174, 50-57	8.6	35
176	Stretchable/flexible silver nanowire Electrodes for energy device applications. *Nanoscale*, **2019**, 11, 20356-20378	7.7	48
175	Stretchable and Transparent Kirigami Conductor of Nanowire Percolation Network for Electronic Skin Applications. *Nano Letters*, **2019**, 19, 6087-6096	11.5	136
174	Directional Shape Morphing Transparent Walking Soft Robot. *Soft Robotics*, **2019**, 6, 760-767	9.2	19
173	A Review on Investigation of Graphene Thermal Property: Recent Development in Measurement Techniques. *Multiscale Science and Engineering*, **2019**, 1, 267-279	1.2	1
172	Study on the oxidation of copper nanowire network electrodes for skin mountable flexible, stretchable and wearable electronics applications. *Nanotechnology*, **2019**, 30, 074001	3.4	22
171	Highly Stable Ni-Based Flexible Transparent Conducting Panels Fabricated by Laser Digital Patterning. *Advanced Functional Materials*, **2019**, 29, 1806895	15.6	48
170	Digitally patterned resistive micro heater as a platform for zinc oxide nanowire based micro sensor. *Applied Surface Science*, **2018**, 447, 1-7	6.7	14
169	Self-assembled stretchable photonic crystal for a tunable color filter. *Optics Letters*, **2018**, 43, 3501-3504	3	20
168	An efficient reduced graphene-oxide filter for PM2.5 removal. *Journal of Materials Chemistry A*, **2018**, 6, 16975-16982	13	36
167	Perspective: A Brief Perspective on the Fabrication of Hierarchical Nanostructure for Solar Water Splitting Photoelectrochemical Cells. *ECS Journal of Solid State Science and Technology*, **2018**, 7, Q131-Q135	2	1
166	ZnO/CuO/M (M = Ag, Au) Hierarchical Nanostructure by Successive Photoreduction Process for Solar Hydrogen Generation. *Nanomaterials*, **2018**, 8,	5.4	9
165	A Transparent and Flexible Capacitive-Force Touch Pad from High-Aspect-Ratio Copper Nanowires with Enhanced Oxidation Resistance for Applications in Wearable Electronics. *Small Methods*, **2018**, 2, 1800077	12.8	29
164	Two orders of magnitude suppression of graphene's thermal conductivity by heavy dopants (Si). *Carbon*, **2018**, 138, 98-107	10.4	22
163	Biomimetic Color Changing Anisotropic Soft Actuators with Integrated Metal Nanowire Percolation Network Transparent Heaters for Soft Robotics. *Advanced Functional Materials*, **2018**, 28, 1801847	15.6	135
162	Recent progress in silver nanowire based flexible/wearable optoelectronics. *Journal of Materials Chemistry C*, **2018**, 6, 7445-7461	7.1	88

161	Shear-Assisted Laser Transfer of Metal Nanoparticle Ink to an Elastomer Substrate. *Materials*, **2018**, 11,	3.5	3
160	Enhanced Thermoelectric Conversion Efficiency of CVD Graphene with Reduced Grain Sizes. *Nanomaterials*, **2018**, 8,	5.4	16
159	Micropatterning of Metal Nanoparticle Ink by Laser-Induced Thermocapillary Flow. *Nanomaterials*, **2018**, 8,	5.4	12
158	A dual-scale metal nanowire network transparent conductor for highly efficient and flexible organic light emitting diodes. *Nanoscale*, **2017**, 9, 1978-1985	7.7	85
157	Ag/Au/Polypyrrole Core-shell Nanowire Network for Transparent, Stretchable and Flexible Supercapacitor in Wearable Energy Devices. *Scientific Reports*, **2017**, 7, 41981	4.9	162
156	Highly Controlled Nanoporous Ag Electrode by Vaporization Control of 2-Ethoxyethanol for a Flexible Supercapacitor Application. *Langmuir*, **2017**, 33, 1854-1860	4	6
155	Flexible and Transparent Cu Electronics by Low-Temperature Acid-Assisted Laser Processing of Cu Nanoparticles. *Advanced Materials Technologies*, **2017**, 2, 1600222	6.8	39
154	Thermally stable Ag@ZrO 2 core-shell via atomic layer deposition. *Materials Letters*, **2017**, 188, 372-374	3.3	18
153	Effect of assembly pressure on the performance of a bendable polymer electrolyte fuel cell based on a silver nanowire current collector. *Energy*, **2017**, 134, 412-419	7.9	17
152	Plasmonic-Tuned Flash Cu Nanowelding with Ultrafast Photochemical-Reducing and Interlocking on Flexible Plastics. *Advanced Functional Materials*, **2017**, 27, 1701138	15.6	76
151	High Efficiency, Transparent, Reusable, and Active PM2.5 Filters by Hierarchical Ag Nanowire Percolation Network. *Nano Letters*, **2017**, 17, 4339-4346	11.5	121
150	Nanowire reinforced nanoparticle nanocomposite for highly flexible transparent electrodes: borrowing ideas from macrocomposites in steel-wire reinforced concrete. *Journal of Materials Chemistry C*, **2017**, 5, 791-798	7.1	44
149	Nanowire-on-Nanowire: All-Nanowire Electronics by On-Demand Selective Integration of Hierarchical Heterogeneous Nanowires. *ACS Nano*, **2017**, 11, 12311-12317	16.7	29
148	Effect of graphene-substrate conformity on the in-plane thermal conductivity of supported graphene. *Carbon*, **2017**, 125, 39-48	10.4	14
147	Selective Thermochemical Growth of Hierarchical ZnO Nanowire Branches on Silver Nanowire Backbone Percolation Network Heaters. *Journal of Physical Chemistry C*, **2017**, 121, 22542-22549	3.8	12
146	Highly Stretchable and Transparent Electromagnetic Interference Shielding Film Based on Silver Nanowire Percolation Network for Wearable Electronics Applications. *ACS Applied Materials & Interfaces*, **2017**, 9, 44609-44616	9.5	187
145	Metal Nanowire-Coated Metal Woven Mesh for High-Performance Stretchable Transparent Electrodes. *ACS Applied Materials & Interfaces*, **2017**, 9, 40905-40913	9.5	22
144	Performance variation of bendable polymer electrolyte fuel cell based on Ag nanowire current collector under mixed bending and twisting load. *International Journal of Hydrogen Energy*, **2017**, 42, 1884-1890	6.7	14

143	Flexible and highly sensitive multi-dimensional strain sensor with intersecting metal nanowire arrays **2017**,		1
142	Solution-Processible Crystalline NiO Nanoparticles for High-Performance Planar Perovskite Photovoltaic Cells. *Scientific Reports*, **2016**, 6, 30759	4.9	129
141	Maskless Fabrication of Highly Robust, Flexible Transparent Cu Conductor by Random Crack Network Assisted Cu Nanoparticle Patterning and Laser Sintering. *Advanced Electronic Materials*, **2016**, 2, 1600277	6.4	39
140	Low temperature thermal engineering of nanoparticle ink for flexible electronics applications. *Semiconductor Science and Technology*, **2016**, 31, 073003	1.8	23
139	Random nanocrack, assisted metal nanowire-bundled network fabrication for a highly flexible and transparent conductor. *RSC Advances*, **2016**, 6, 57434-57440	3.7	50
138	Selective electro thermal growth of zinc oxide nanowire on photolithographically patterned electrode for microsensor applications. *International Journal of Precision Engineering and Manufacturing - Green Technology*, **2016**, 3, 173-177	3.8	11
137	Low-haze, annealing-free, very long Ag nanowire synthesis and its application in a flexible transparent touch panel. *Nanotechnology*, **2016**, 27, 295201	3.4	65
136	Highly Stretchable and Transparent Supercapacitor by Ag-Au Core-Shell Nanowire Network with High Electrochemical Stability. *ACS Applied Materials & Interfaces*, **2016**, 8, 15449-58	9.5	173
135	A three-dimensional metal grid mesh as a practical alternative to ITO. *Nanoscale*, **2016**, 8, 14257-63	7.7	34
134	Simple hydrothermal synthesis of very-long and thin silver nanowires and their application in high quality transparent electrodes. *Journal of Materials Chemistry A*, **2016**, 4, 11365-11371	13	105
133	Photoreduction Synthesis of Hierarchical Hematite/Silver Nanostructures for Photoelectrochemical Water Splitting. *Energy Technology*, **2016**, 4, 271-277	3.5	9
132	Flexible fuel cell using stiffness-controlled endplate. *International Journal of Hydrogen Energy*, **2016** , 41, 6013-6019	6.7	33
131	From design for manufacturing (DFM) to manufacturing for design (MFD) via hybrid manufacturing and smart factory: A review and perspective of paradigm shift. *International Journal of Precision Engineering and Manufacturing - Green Technology*, **2016**, 3, 209-222	3.8	51
130	Low-Temperature Oxidation-Free Selective Laser Sintering of Cu Nanoparticle Paste on a Polymer Substrate for the Flexible Touch Panel Applications. *ACS Applied Materials & Interfaces*, **2016**, 8, 11575-82	9.5	122
129	Digital selective laser methods for nanomaterials: From synthesis to processing. *Nano Today*, **2016**, 11, 547-564	17.9	64
128	The Effect of Particle Morphology on Unipolar Diffusion Charging of Silver Nanowires. *Aerosol Science and Technology*, **2015**, 49, 290-298	3.4	2
127	Highly Sensitive and Stretchable Multidimensional Strain Sensor with Prestrained Anisotropic Metal Nanowire Percolation Networks. *Nano Letters*, **2015**, 15, 5240-7	11.5	417
126	Advanced Inkjet Technology for 3D Micro-metal Structure Fabrication **2015**, 425-439		3

125	Low-cost facile fabrication of flexible transparent copper electrodes by nanosecond laser ablation. *Advanced Materials*, **2015**, 27, 2762-7	24	108
124	A hyper-stretchable elastic-composite energy harvester. *Advanced Materials*, **2015**, 27, 2866-75	24	281
123	Facile Photoreduction Process for ZnO/Ag Hierarchical Nanostructured Photoelectrochemical Cell Integrated with Supercapacitor. *ECS Journal of Solid State Science and Technology*, **2015**, 4, P424-P428	2	10
122	Selective Laser Direct Patterning of Silver Nanowire Percolation Network Transparent Conductor for Capacitive Touch Panel. *Journal of Nanoscience and Nanotechnology*, **2015**, 15, 2317-23	1.3	74
121	Ultrasonication assisted production of silver nanowires with low aspect ratio and their optical properties. *Ultrasonics Sonochemistry*, **2015**, 22, 35-40	8.9	17
120	Hybrid subtractive micro-patterning of a self-assembled SiO2 nano/microsphere monolayer. *Journal of Micromechanics and Microengineering*, **2015**, 25, 105006	2	2
119	Nanowires: Nanorecycling: Monolithic Integration of Copper and Copper Oxide Nanowire Network Electrode through Selective Reversible Photothermochemical Reduction (Adv. Mater. 41/2015). *Advanced Materials*, **2015**, 27, 6396-6396	24	2
118	Control and Manipulation of Nano Cracks Mimicking Optical Wave. *Scientific Reports*, **2015**, 5, 17292	4.9	10
117	Highly stretchable and transparent metal nanowire heater for wearable electronics applications. *Advanced Materials*, **2015**, 27, 4744-51	24	541
116	Nanorecycling: Monolithic Integration of Copper and Copper Oxide Nanowire Network Electrode through Selective Reversible Photothermochemical Reduction. *Advanced Materials*, **2015**, 27, 6397-403	24	93
115	All-solid-state flexible supercapacitors by fast laser annealing of printed metal nanoparticle layers. *Journal of Materials Chemistry A*, **2015**, 3, 8339-8345	13	57
114	Laser-Induced Hydrothermal Growth of Heterogeneous Metal-Oxide Nanowire on Flexible Substrate by Laser Absorption Layer Design. *ACS Nano*, **2015**, 9, 6059-68	16.7	64
113	Direct Micro Metal Patterning on Plastic Substrates by Electrohydrodynamic Jet Printing for Flexible Electronic Applications. *ECS Journal of Solid State Science and Technology*, **2015**, 4, P3052-P3056	2	13
112	Focused energy field method for the localized synthesis and direct integration of 1D nanomaterials on microelectronic devices. *Advanced Materials*, **2015**, 27, 1207-15	24	47
111	Controllable Ag nanostructure patterning in a microfluidic channel for real-time SERS systems. *Nanoscale*, **2014**, 6, 2895-901	7.7	40
110	Digital 3D Local Growth of Iron Oxide Micro- and Nanorods by Laser-Induced Photothermal Chemical Liquid Growth. *Journal of Physical Chemistry C*, **2014**, 118, 15448-15454	3.8	22
109	Selective sintering of metal nanoparticle ink for maskless fabrication of an electrode micropattern using a spatially modulated laser beam by a digital micromirror device. *ACS Applied Materials & Interfaces*, **2014**, 6, 2786-90	9.5	56
108	Long-term sustainable aluminum precursor solution for highly conductive thin films on rigid and flexible substrates. *ACS Applied Materials & Interfaces*, **2014**, 6, 15480-7	9.5	21

107	Electrical mobility of silver nanowires in transition and continuum regimes. *Journal of Aerosol Science*, **2014**, 72, 21-31	4.3	3
106	Highly Stretchable or Transparent Conductor Fabrication by a Hierarchical Multiscale Hybrid Nanocomposite. *Advanced Functional Materials*, **2014**, 24, 5671-5678	15.6	239
105	Single nanowire resistive nano-heater for highly localized thermo-chemical reactions: localized hierarchical heterojunction nanowire growth. *Small*, **2014**, 10, 5015-22	11	8
104	Full-field subwavelength imaging using a scattering superlens. *Physical Review Letters*, **2014**, 113, 113901	7.4	58
103	Performance enhancement in bendable fuel cell using highly conductive Ag nanowires. *International Journal of Hydrogen Energy*, **2014**, 39, 7422-7427	6.7	46
102	Flexible supercapacitor fabrication by room temperature rapid laser processing of roll-to-roll printed metal nanoparticle ink for wearable electronics application. *Journal of Power Sources*, **2014**, 246, 562-568	8.9	114
101	Fast plasmonic laser nanowelding for a Cu-nanowire percolation network for flexible transparent conductors and stretchable electronics. *Advanced Materials*, **2014**, 26, 5808-14	24	345
100	Review of the Multi-scale Nano-structure Approach to the Development of High Efficiency Solar Cells. *Smart Science*, **2014**, 2, 54-62	1.5	18
99	Maskless digital manufacturing of organic thin film transistor by femtosecond laser direct patterning **2014**,		1
98	Nanoscale Heaters: Single Nanowire Resistive Nano-heater for Highly Localized Thermo-Chemical Reactions: Localized Hierarchical Heterojunction Nanowire Growth (Small 24/2014). *Small*, **2014**, 10, 5014-5014	11	30
97	Silver nanoparticle piezoresistive sensors fabricated by roll-to-roll slot-die coating and laser direct writing. *Optics Express*, **2014**, 22, 8919-27	3.3	23
96	Mechanical and environmental durability of roll-to-roll printed silver nanoparticle film using a rapid laser annealing process for flexible electronics. *Microelectronics Reliability*, **2014**, 54, 2871-2880	1.2	28
95	In situ monitoring of laser-assisted hydrothermal growth of ZnO nanowires: thermally deactivating growth kinetics. *Small*, **2014**, 10, 741-9	11	30
94	Smart Wristband: Touch-and-Motion-Tracking Wearable 3D Input Device for Smart Glasses. *Lecture Notes in Computer Science*, **2014**, 109-118	0.9	5
93	Flexible Superhydrophobic Polymeric Surfaces with Micro-/Nanohybrid Structures Using Black Silicon. *Macromolecular Materials and Engineering*, **2013**, 298, 311-317	3.9	12
92	Improvement of light-harvesting efficiency in dye-sensitized solar cells using silica beads embedded in a TiO2nanoporous structure. *Journal Physics D: Applied Physics*, **2013**, 46, 024006	3	19
91	Nanowires: Rapid, One-Step, Digital Selective Growth of ZnO Nanowires on 3D Structures Using Laser Induced Hydrothermal Growth (Adv. Funct. Mater. 26/2013). *Advanced Functional Materials*, **2013**, 23, 3315-3315	15.6	
90	Rapid, One-Step, Digital Selective Growth of ZnO Nanowires on 3D Structures Using Laser Induced Hydrothermal Growth. *Advanced Functional Materials*, **2013**, 23, 3316-3323	15.6	80

89	Bendable polymer electrolyte fuel cell using highly flexible Ag nanowire percolation network current collectors. *Journal of Materials Chemistry A*, **2013**, 1, 8541	13	58
88	Nanosecond laser ablation of silver nanoparticle film. *Optical Engineering*, **2013**, 52, 024302	1.1	16
87	Digital selective growth of a ZnO nanowire array by large scale laser decomposition of zinc acetate. *Nanoscale*, **2013**, 5, 3698-703	7.7	36
86	Overcoming the retention vs. voltage trade-off in nonvolatile organic memory: Ag nanoparticles covered with dipolar self-assembled monolayers as robust charge storage nodes. *Organic Electronics*, **2013**, 14, 3260-3266	3.5	19
85	Direct selective growth of ZnO nanowire arrays from inkjet-printed zinc acetate precursor on a heated substrate. *Nanoscale Research Letters*, **2013**, 8, 489	5	42
84	Synthesis of hierarchical TiO2 nanowires with densely-packed and omnidirectional branches. *Nanoscale*, **2013**, 5, 11147-52	7.7	69
83	Vacuum-assisted microcontact printing (CP) for aligned patterning of nano and biochemical materials. *Journal of Materials Chemistry C*, **2013**, 1, 268-274	7.1	15
82	Subwavelength light focusing using random nanoparticles. *Nature Photonics*, **2013**, 7, 454-458	33.9	125
81	An evaluation of the exposure in nadir observation of the JEM-EUSO mission. *Astroparticle Physics*, **2013**, 44, 76-90	2.4	84
80	Nonvacuum, maskless fabrication of a flexible metal grid transparent conductor by low-temperature selective laser sintering of nanoparticle ink. *ACS Nano*, **2013**, 7, 5024-31	16.7	327
79	Highly Conductive Aluminum Textile and Paper for Flexible and Wearable Electronics. *Angewandte Chemie*, **2013**, 125, 7872-7877	3.6	43
78	Highly conductive aluminum textile and paper for flexible and wearable electronics. *Angewandte Chemie - International Edition*, **2013**, 52, 7718-23	16.4	85
77	Room-Temperature Nanosoldering of a Very Long Metal Nanowire Network by Conducting-Polymer-Assisted Joining for a Flexible Touch-Panel Application. *Advanced Functional Materials*, **2013**, 23, 4171-4176	15.6	394
76	Low-Temperature Rapid Fabrication of ZnO Nanowire UV Sensor Array by Laser-Induced Local Hydrothermal Growth. *Journal of Nanomaterials*, **2013**, 2013, 1-7	3.2	13
75	Reinforcing Ag nanoparticle thin films with very long Ag nanowires. *Nanotechnology*, **2013**, 24, 415704	3.4	13
74	Pattern analysis of aligned nanowires in a microchannel. *Measurement Science and Technology*, **2013**, 24, 035303	2	4
73	Fabrication of submicron-sized metal patterns on a flexible polymer substrate by femtosecond laser sintering of metal nanoparticles. *International Journal of Nanomanufacturing*, **2013**, 9, 468	0.7	7
72	Hierarchical ZnO Nano-Tree Growth for High Efficiency Solar Cell **2013**, 149-154		

71	R□ktitelbild: Highly Conductive Aluminum Textile and Paper for Flexible and Wearable Electronics (Angew. Chem. 30/2013). *Angewandte Chemie*, **2013**, 125, 8042-8042	3.6	
70	Hierarchical ZnO Nano-Tree Growth for High Efficiency Solar Cell **2013**, 149-154		
69	3D micro-structures by piezoelectric inkjet printing of gold nanofluids. *Journal of Micromechanics and Microengineering*, **2012**, 22, 055022	2	58
68	Effect of carrier gas temperature on pentacene thin film formation by organic vapor-jet printing techniques. *Thermochimica Acta*, **2012**, 542, 74-79	2.9	2
67	Application of the specific thermal properties of Ag nanoparticles to high-resolution metal patterning. *Thermochimica Acta*, **2012**, 542, 52-56	2.9	43
66	Solution processed aluminum paper for flexible electronics. *Langmuir*, **2012**, 28, 13127-35	4	56
65	Very long Ag nanowire synthesis and its application in a highly transparent, conductive and flexible metal electrode touch panel. *Nanoscale*, **2012**, 4, 6408-14	7.7	581
64	ZnO nano-tree growth study for high efficiency solar cell. *Energy Procedia*, **2012**, 14, 1093-1098	2.3	11
63	Digital selective growth of ZnO nanowire arrays from inkjet-printed nanoparticle seeds on a flexible substrate. *Langmuir*, **2012**, 28, 4787-92	4	47
62	Patterning by controlled cracking. *Nature*, **2012**, 485, 221-4	50.4	173
61	Large-Scale Synthesis and Characterization of Very Long Silver Nanowires via Successive Multistep Growth. *Crystal Growth and Design*, **2012**, 12, 5598-5605	3.5	162
60	Large-area nanoimprinting on various substrates by reconfigurable maskless laser direct writing. *Nanotechnology*, **2012**, 23, 344012	3.4	13
59	Hierarchical weeping willow nano-tree growth and effect of branching on dye-sensitized solar cell efficiency. *Nanotechnology*, **2012**, 23, 194005	3.4	64
58	Direct Micro/Nano Patterning of Multiple Colored Quantum Dots by Large Area and Multilayer Imprinting. *Journal of Physical Chemistry C*, **2012**, 116, 11728-11733	3.8	19
57	Highly stretchable and highly conductive metal electrode by very long metal nanowire percolation network. *Advanced Materials*, **2012**, 24, 3326-32	24	778
56	Flexible Electronics: Highly Stretchable and Highly Conductive Metal Electrode by Very Long Metal Nanowire Percolation Network (Adv. Mater. 25/2012). *Advanced Materials*, **2012**, 24, 3325-3325	24	9
55	Non-vacuum, single-step conductive transparent ZnO patterning by ultra-short pulsed laser annealing of solution-deposited nanoparticles. *Applied Physics A: Materials Science and Processing*, **2012**, 107, 161-171	2.6	33
54	Next generation non-vacuum, maskless, low temperature nanoparticle ink laser digital direct metal patterning for a large area flexible electronics. *PLoS ONE*, **2012**, 7, e42315	3.7	92

53	Zinc Oxide Nanowire Forest for Pool Boiling Heat Transfer. *Japanese Journal of Applied Physics*, **2012**, 51, 11PE11	1.4	4
52	Zinc Oxide Nanowire Forest for Pool Boiling Heat Transfer. *Japanese Journal of Applied Physics*, **2012**, 51, 11PE11	1.4	11
51	Nanoforest of hydrothermally grown hierarchical ZnO nanowires for a high efficiency dye-sensitized solar cell. *Nano Letters*, **2011**, 11, 666-71	11.5	886
50	Simple ZnO Nanowires Patterned Growth by Microcontact Printing for High Performance Field Emission Device. *Journal of Physical Chemistry C*, **2011**, 115, 11435-11441	3.8	84
49	Microelectrode fabrication by laser direct curing of tiny nanoparticle self-generated from organometallic ink. *Optics Express*, **2011**, 19, 2573-9	3.3	58
48	Optimum design of ordered bulk heterojunction organic photovoltaics. *Solar Energy Materials and Solar Cells*, **2011**, 95, 3021-3024	6.4	16
47	Fiber laser annealing of indium-tin-oxide nanoparticles for large area transparent conductive layers and optical film characterization. *Applied Physics A: Materials Science and Processing*, **2011**, 104, 29-38	2.6	28
46	Nanoscale electronics: digital fabrication by direct femtosecond laser processing of metal nanoparticles. *Advanced Materials*, **2011**, 23, 3176-81	24	147
45	One-Step Fabrication of Copper Electrode by Laser-Induced Direct Local Reduction and Agglomeration of Copper Oxide Nanoparticle. *Journal of Physical Chemistry C*, **2011**, 115, 23664-23670	3.8	119
44	Status of Research on Selective Laser Sintering of Nanomaterials for Flexible Electronics Fabrication. *Transactions of the Korean Society of Mechanical Engineers, B*, **2011**, 35, 533-538	0.5	1
43	Assembly of Acircular SnO2Rod Using Optical Tweezers and Laser Curing of Metal Nanoparticles. *Japanese Journal of Applied Physics*, **2010**, 49, 05EA12	1.4	4
42	Metal nanoparticle direct inkjet printing for low-temperature 3D micro metal structure fabrication. *Journal of Micromechanics and Microengineering*, **2010**, 20, 125010	2	119
41	Fabrication of Nano-scale Conductors by Selective Femtosecond Laser Sintering of Metal Nanoparticles **2010**,		1
40	Nanoparticle Selective Laser Processing for a Flexible Display Fabrication. *Japanese Journal of Applied Physics*, **2010**, 49, 05EC03	1.4	29
39	Laser-induced acoustic wave generation/propagation/interaction in water in various internal channels. *Applied Physics A: Materials Science and Processing*, **2010**, 100, 391-400	2.6	2
38	High-throughput near-field optical nanoprocessing of solution-deposited nanoparticles. *Small*, **2010**, 6, 1812-21	11	52
37	Large area flexible electronics fabrication by selective laser sintering of nanoparticles with a scanning mirror. *Materials Research Society Symposia Proceedings*, **2009**, 1196, 28		
36	Laser annealed composite titanium dioxide electrodes for dye-sensitized solar cells on glass and plastics. *Applied Physics Letters*, **2009**, 94, 071117	3.4	71

35	Organic Light Emitting Material Direct Writing by Nanomaterial Enabled Laser Transfer. *Materials Research Society Symposia Proceedings*, **2009**, 1179, 44		
34	Melt-mediated coalescence of solution-deposited ZnO nanoparticles by excimer laser annealing for thin-film transistor fabrication. *Applied Physics A: Materials Science and Processing*, **2009**, 94, 111-115	2.6	69
33	Experimental study on spreading and evaporation of inkjet printed pico-liter droplet on a heated substrate. *International Journal of Heat and Mass Transfer*, **2009**, 52, 431-441	4.9	115
32	Laser induced plane acoustic wave generation, propagation, and interaction with rigid structures in water. *Journal of Applied Physics*, **2008**, 104, 073104	2.5	7
31	The Solid-State Neck Growth Mechanisms in Low Energy Laser Sintering of Gold Nanoparticles: A Molecular Dynamics Simulation Study. *Journal of Heat Transfer*, **2008**, 130,	1.8	77
30	Thermal sintering of solution-deposited nanoparticle silver ink films characterized by spectroscopic ellipsometry. *Applied Physics Letters*, **2008**, 93, 234104	3.4	35
29	Nanomaterial enabled laser transfer for organic light emitting material direct writing. *Applied Physics Letters*, **2008**, 93, 151110	3.4	38
28	ZnO nanowire network transistor fabrication on a polymer substrate by low-temperature, all-inorganic nanoparticle solution process. *Applied Physics Letters*, **2008**, 92, 154102	3.4	88
27	Lithography-free high-resolution organic transistor arrays on polymer substrate by low energy selective laser ablation of inkjet-printed nanoparticle film. *Applied Physics A: Materials Science and Processing*, **2008**, 92, 579-587	2.6	67
26	Pulsed laser annealing of semiconductor structures for functional devices. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2008**, 5, 3264-3270		7
25	Nanoscale Patterning and Electronics on Flexible Substrate by Direct Nanoimprinting of Metallic Nanoparticles. *Advanced Materials*, **2008**, 20, 489-496	24	156
24	The neck growth mechanisms in low energy laser sintering of gold nanoparticles: a molecular dynamics simulation study **2007**,		1
23	Direct nanoimprinting of metal nanoparticles for nanoscale electronics fabrication. *Nano Letters*, **2007**, 7, 1869-77	11.5	262
22	Fabrication of multilayer passive and active electric components on polymer using inkjet printing and low temperature laser processing. *Sensors and Actuators A: Physical*, **2007**, 134, 161-168	3.9	136
21	The coalescence of supported gold nanoparticles induced by nanosecond laser irradiation. *Applied Physics A: Materials Science and Processing*, **2007**, 90, 247-253	2.6	38
20	Low Temperature OFET (Organic Field Effect Transistor) Fabrication by Metal Nanoparticle Imprinting **2007**, 947		
19	Laser induced short plane acoustic wave focusing in water. *Applied Physics Letters*, **2007**, 91, 051128	3.4	18
18	High resolution selective multilayer laser processing by nanosecond laser ablation of metal nanoparticle films. *Journal of Applied Physics*, **2007**, 102, 093102	2.5	41

17	All-inkjet-printed flexible electronics fabrication on a polymer substrate by low-temperature high-resolution selective laser sintering of metal nanoparticles. *Nanotechnology*, **2007**, 18, 345202	3.4	560
16	Air stable high resolution organic transistors by selective laser sintering of ink-jet printed metal nanoparticles. *Applied Physics Letters*, **2007**, 90, 141103	3.4	153
15	Air Stable High Resolution OFET (Organic Field Effect Transistor) Fabrication Using Inkjet Printing and Low Temperature Selective Laser Sintering Process **2006**, 201		
14	In situ crystal growth during explosive crystallization **2006**, 6106, 252		1
13	Explosive crystallization in the presence of melting. *Physical Review B*, **2006**, 73,	3.3	33
12	Nanosecond laser ablation of gold nanoparticle films. *Applied Physics Letters*, **2006**, 89, 141126	3.4	71
11	Fabrication of multilayer passive electric components using inkjet printing and low temperature laser processing on polymer **2006**,		4
10	Fabrication of Inkjet Printed Flexible Electronics by Low Temperature Subtractive Laser Processing **2005**, 599		2
9	Damage-Free Low Temperature Pulsed Laser Printing of Gold Nanoinks On Polymers. *Journal of Heat Transfer*, **2005**, 127, 724-732	1.8	56
8	Laser based hybrid inkjet printing of nanoink for flexible electronics **2005**, 5713, 97		12
7	Subtractive Laser Processing of Low Temperature Inkjet Printed Micro Electric Components of Functional Nano-Ink for Flexible Electronics **2005**, 1935		4
6	In-tandem deposition and sintering of printed gold nanoparticle inks induced by continuous Gaussian laser irradiation. *Applied Physics A: Materials Science and Processing*, **2004**, 79, 1259-1261	2.6	65
5	Conductor microstructures by laser curing of printed gold nanoparticle ink. *Applied Physics Letters*, **2004**, 84, 801-803	3.4	215
4	Metal-Oxide Nanomaterials Synthesis and Applications in Flexible and Wearable Sensors. *ACS Nanoscience Au*,		12
3	Evolvable Skin Electronics by In Situ and In Operando Adaptation. *Advanced Functional Materials*,2106329	15.6	7
2	Recent Advances in Sustainable Wearable Energy Devices with Nanoscale Materials and Macroscale Structures. *Advanced Functional Materials*,2110535	15.6	5
1	Bioinspired Soft Robotic Fish for Wireless Underwater Control of Gliding Locomotion. *Advanced Intelligent Systems*,2100271	6	2