Heng Pan

List of Publications by Year
in descending order

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52 papers	2,844 citations	236612 25 h-index	223531 46 g-index
53 all docs	53 docs citations	53 times ranked	3687 citing authors

#	Article	IF	Citations
1	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.	1.3	646
2	Direct Nanoimprinting of Metal Nanoparticles for Nanoscale Electronics Fabrication. Nano Letters, 2007, 7, 1869-1877.	4.5	297
3	Air stable high resolution organic transistors by selective laser sintering of ink-jet printed metal nanoparticles. Applied Physics Letters, 2007, 90, 141103.	1.5	182
4	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.	2.0	156
5	Solvent-Free Manufacturing of Electrodes for Lithium-ion Batteries. Scientific Reports, 2016, 6, 23150.	1.6	144
6	Materials, Processes, and Facile Manufacturing for Bioresorbable Electronics: A Review. Advanced Materials, 2018, 30, e1707624.	11.1	133
7	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, .	1.2	93
8	ZnO nanowire network transistor fabrication on a polymer substrate by low-temperature, all-inorganic nanoparticle solution process. Applied Physics Letters, 2008, 92, .	1.5	93
9	Lowâ€Cost Manufacturing of Bioresorbable Conductors by Evaporationâ€“Condensationâ€Mediated Laser Printing and Sintering of Zn Nanoparticles. Advanced Materials, 2017, 29, 1700172.	11.1	88
10	Laser annealed composite titanium dioxide electrodes for dye-sensitized solar cells on glass and plastics. Applied Physics Letters, 2009, 94, .	1.5	80
11	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.	1.1	79
12	Lithography-free high-resolution organic transistor arrays onÂpolymer substrate by low energy selective laser ablation ofÂinkjet-printed nanoparticle film. Applied Physics A: Materials Science and Processing, 2008, 92, 579-587.	1.1	77
13	Highâ€Throughput Nearâ€Field Optical Nanoprocessing of Solutionâ€Deposited Nanoparticles. Small, 2010, 6, 1812-1821.	5.2	66
14	Highly Efficient and Stable Perovskite Solar Cells Using a Dopantâ€Free Inexpensive Small Molecule as the Holeâ€Transporting Material. Advanced Energy Materials, 2018, 8, 1801248.	10.2	62
15	High resolution selective multilayer laser processing by nanosecond laser ablation of metal nanoparticle films. Journal of Applied Physics, 2007, 102, .	1.1	57
16	Nanoparticle Selective Laser Processing for a Flexible Display Fabrication. Japanese Journal of Applied Physics, 2010, 49, 05EC03.	0.8	53
17	Mechanically Milled Irregular Zinc Nanoparticles for Printable Bioresorbable Electronics. Small, 2017, 13, 1700065.	5.2	50
18	Materials, Mechanics, and Patterning Techniques for Elastomer-Based Stretchable Conductors. Micromachines, 2017, 8, 7.	1.4	46

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19	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.	1.1	43
20	Nanomaterial enabled laser transfer for organic light emitting material direct writing. Applied Physics Letters, 2008, 93, .	1.5	42
21	Thermal sintering of solution-deposited nanoparticle silver ink films characterized by spectroscopic ellipsometry. Applied Physics Letters, 2008, 93, 234104.	1.5	41
22	Understanding Interfacialâ€Energyâ€Driven Dry Powder Mixing for Solventâ€Free Additive Manufacturing of Liâ€Ion Battery Electrodes. Advanced Materials Interfaces, 2017, 4, 1700570.	1.9	38
23	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.	1.1	33
24	Programming Nanoparticles in Multiscale: Optically Modulated Assembly and Phase Switching of Silicon Nanoparticle Array. ACS Nano, 2018, 12, 2231-2241.	7.3	32
25	Scalable Dry Printing Manufacturing to Enable Longâ€Life and High Energy Lithiumâ€Ion Batteries. Advanced Materials Technologies, 2017, 2, 1700106.	3.0	30
26	Aerosol printing and photonic sintering of bioresorbable zinc nanoparticle ink for transient electronics manufacturing. Science China Information Sciences, 2018, 61, 1.	2.7	25
27	Customizable Nonplanar Printing of Lithiumâ€Ion Batteries. Advanced Materials Technologies, 2019, 4, 1900645.	3.0	20
28	Fast Reversible Phase Change Silicon for Visible Active Photonics. Advanced Functional Materials, 2020, 30, 1910784.	7.8	19
29	Large-area nanoimprinting on various substrates by reconfigurable maskless laser direct writing. Nanotechnology, 2012, 23, 344012.	1.3	14
30	Strengthening the Electrodes for Li-Ion Batteries with a Porous Adhesive Interlayer through Dry-Spraying Manufacturing. ACS Applied Materials & Interfaces, 2019, 11, 25081-25089.	4.0	14
31	Simulation of Micro/Nanopowder Mixing Characteristics for Dry Spray Additive Manufacturing of Li-Ion Battery Electrodes. Journal of Micro and Nano-Manufacturing, 2017, 5, .	0.8	12
32	Laser induced plane acoustic wave generation, propagation, and interaction with rigid structures in water. Journal of Applied Physics, 2008, 104, 073104.	1.1	10
33	Aluminum Parts Fabricated by Laser-Foil-Printing Additive Manufacturing: Processing, Microstructure, and Mechanical Properties. Materials, 2020, 13, 414.	1.3	10
34	The Coupled Photothermal Reaction and Transport in a Laser Additive Metal Nanolayer Simultaneous Synthesis and Pattering for Flexible Electronics. Nanomaterials, 2016, 6, 12.	1.9	9
35	Crystallization in nano-confinement seeded by a nanocrystalâ€”A molecular dynamics study. Journal of Applied Physics, 2014, 115, 104307.	1.1	6
36	Silicon-wall interfacial free energy via thermodynamics integration. Journal of Chemical Physics, 2016, 145, 184702.	1.2	6

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37	Additive Manufacturing of Sandwichâ€“Structured Conductors for Applications in Flexible and Stretchable Electronics. Advanced Engineering Materials, 2021, 23, 2100286.	1.6	6
38	Direct printing of microstructures by femtosecond laser excitation of nanocrystals in solution. Applied Physics Letters, 2016, 108, .	1.5	5
39	Submicron Metal 3D Printing by Ultrafast Laser Heating and Induced Ligand Transformation of Nanocrystals. ACS Applied Materials & Interfaces, 2021, 13, 42154-42163.	4.0	5
40	Aerosol printing and flash sintering of conformal conductors on 3D nonplanar surfaces. Manufacturing Letters, 2022, 31, 119-123.	1.1	5
41	Ultrafast, Nonâ€Equilibrium and Transient Heating and Sintering of Nanocrystals for Nanoscale Metal Printing. Small, 2021, 17, e2103436.	5.2	5
42	Single crystal formation in micro/nano-confined domains by melt-mediated crystallization without seeds. Journal Physics D: Applied Physics, 2015, 48, 225302.	1.3	4
43	Laser-induced acoustic wave generation/propagation/interaction in water in various internal channels. Applied Physics A: Materials Science and Processing, 2010, 100, 391-400.	1.1	3
44	Feasibility Study of Single-Crystal Si Island Manufacturing by Microscale Printing of Nanoparticles and Laser Crystallization. ACS Applied Materials & Interfaces, 2019, 11, 34416-34423.	4.0	2
45	Large area flexible electronics fabrication by selective laser sintering of nanoparticles with a scanning mirror. , 2009, , .		1
46	Bioresorbable Electronics: Mechanically Milled Irregular Zinc Nanoparticles for Printable Bioresorbable Electronics (Small 17/2017). Small, 2017, 13, .	5.2	1
47	Direct Aerosol Printing of Lithium-ion Batteries. International Symposium on Microelectronics, 2017, 2017, 000391-000397.	0.3	1
48	Excimer laser annealing of ZnO nanoparticles for thin film transistor fabrication. , 2008, , .		0
49	Excimer laser annealing of TiO2 nanoparticles for dye sensitized solar cells. , 2009, , .		0
50	Organic Light Emitting Material Direct Writing by Nanomaterial Enabled Laser Transfer. Materials Research Society Symposia Proceedings, 2009, 1179, 44.	0.1	0
51	Lithiumâ€Ion Batteries: Scalable Dry Printing Manufacturing to Enable Longâ€Life and High Energy Lithiumâ€Ion Batteries (Adv. Mater. Technol. 10/2017). Advanced Materials Technologies, 2017, 2, .	3.0	0
52	Epidermal wireless sensors on releasable films for biophysical signal measurement on facial areas. , 2017, , .		0