

# Chih-Hung Chang

## List of Publications by Year in descending order

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89  
papers

2,450  
citations

185998

28  
h-index

223531

46  
g-index

91  
all docs

91  
docs citations

91  
times ranked

3521  
citing authors

#	ARTICLE	IF	CITATIONS
1	Enhancement of pool-boiling heat transfer using nanostructured surfaces on aluminum and copper. <i>International Journal of Heat and Mass Transfer</i> , 2010, 53, 3357-3365.	2.5	174
2	Inkjet printed high-mobility indium zinc tin oxide thin film transistors. <i>Journal of Materials Chemistry</i> , 2009, 19, 3135.	6.7	139
3	High-rate synthesis of Cu <sup>2+</sup> -BTC metal-organic frameworks. <i>Chemical Communications</i> , 2013, 49, 11518.	2.2	127
4	Inkjet printed chalcopyrite CuIn <sub>x</sub> Ga <sub>1-x</sub> Se <sub>2</sub> thin film solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2011, 95, 2616-2620.	3.0	110
5	Numerical Modeling of Sub-Wavelength Anti-Reflective Structures for Solar Module Applications. <i>Nanomaterials</i> , 2014, 4, 87-128.	1.9	100
6	Synthesis and post-processing of nanomaterials using microreaction technology. <i>Journal of Nanoparticle Research</i> , 2008, 10, 965-980.	0.8	99
7	Microwave assisted synthesis of Cu <sub>2</sub> ZnSnS <sub>4</sub> colloidal nanoparticle inks. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2012, 209, 2186-2194.	0.8	68
8	Inkjet-Printed High Mobility Transparent <sup>2D</sup> Oxide Semiconductors. <i>Journal of Display Technology</i> , 2009, 5, 520-524.	1.3	66
9	8.01% CuInGaSe <sub>2</sub> solar cells fabricated by air-stable low-cost inks. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 11154.	1.3	64
10	Fabrication of high-performance, low-temperature solution processed amorphous indium oxide thin-film transistors using a volatile nitrate precursor. <i>Journal of Materials Chemistry C</i> , 2015, 3, 854-860.	2.7	63
11	Near-infrared absorption gas sensing with metal-organic framework on optical fibers. <i>Sensors and Actuators B: Chemical</i> , 2016, 232, 43-51.	4.0	61
12	Low-temperature, inkjet printed p-type copper(I) iodide thin film transistors. <i>Journal of Materials Chemistry C</i> , 2016, 4, 10309-10314.	2.7	59
13	Large-scale Generation of Patterned Bubble Arrays on Printed Bi-functional Boiling Surfaces. <i>Scientific Reports</i> , 2016, 6, 23760.	1.6	54
14	Ultrashort Near-Infrared Fiber-Optic Sensors for Carbon Dioxide Detection. <i>IEEE Sensors Journal</i> , 2015, 15, 5327-5332.	2.4	49
15	Surface-Enhanced Infrared Absorption: Pushing the Frontier for On-Chip Gas Sensing. <i>ACS Sensors</i> , 2018, 3, 230-238.	4.0	49
16	Self-Assembly of Nanostructured Diatom Microshells into Patterned Arrays Assisted by Polyelectrolyte Multilayer Deposition and Inkjet Printing. <i>Journal of the American Chemical Society</i> , 2009, 131, 4178-4179.	6.6	48
17	Visible-light-sensitive Na-doped p-type flower-like ZnO photocatalysts synthesized via a continuous flow microreactor. <i>RSC Advances</i> , 2013, 3, 12702.	1.7	47
18	Plasmonics-enhanced metal-organic framework nanoporous films for highly sensitive near-infrared absorption. <i>Journal of Materials Chemistry C</i> , 2015, 3, 2763-2767.	2.7	41

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19	On the self-damping nature of densification in photonic sintering of nanoparticles. <i>Scientific Reports</i> , 2015, 5, 14845.	1.6	40
20	Reversible Insertion of Mg <sup>2+</sup> /Cl <sup>-</sup> Superhalides in Graphite as a Cathode for Aqueous Dual-Ion Batteries. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 19924-19928.	7.2	39
21	Effects of fluid flow on the growth and assembly of ZnO nanocrystals in a continuous flow microreactor. <i>CrystEngComm</i> , 2013, 15, 3326.	1.3	36
22	Visible-light-sensitive nanoscale Au-ZnO photocatalysts. <i>Journal of Nanoparticle Research</i> , 2013, 15, 1.	0.8	35
23	Continuous Microwave-Assisted Gas-Liquid Segmented Flow Reactor for Controlled Nucleation and Growth of Nanocrystals. <i>Crystal Growth and Design</i> , 2014, 14, 5349-5355.	1.4	34
24	Nanostructured ZnO as biomimetic anti-reflective coatings on textured silicon using a continuous solution process. <i>Journal of Materials Chemistry</i> , 2012, 22, 22906.	6.7	31
25	Metal-Organic Framework Thin Films: Fabrication, Modification, and Patterning. <i>Processes</i> , 2020, 8, 377.	1.3	31
26	Electron Microscopy and Optical Characterization of Cadmium Sulphide Nanocrystals Deposited on the Patterned Surface of Diatom Biosilica. <i>Journal of Nanomaterials</i> , 2009, 2009, 1-7.	1.5	30
27	Synthesis of colloidal PbSe nanoparticles using a microwave-assisted segmented flow reactor. <i>Materials Letters</i> , 2014, 128, 54-59.	1.3	30
28	Temperature, Crystalline Phase and Influence of Substrate Properties in Intense Pulsed Light Sintering of Copper Sulfide Nanoparticle Thin Films. <i>Scientific Reports</i> , 2018, 8, 2201.	1.6	29
29	Continuous synthesis of SnTe nanorods. <i>Journal of Materials Chemistry</i> , 2011, 21, 12218.	6.7	27
30	Modeling nanoscale temperature gradients and conductivity evolution in pulsed light sintering of silver nanowire networks. <i>Nanotechnology</i> , 2018, 29, 505205.	1.3	25
31	Curating Metal-Organic Frameworks To Compose Robust Gas Sensor Arrays in Dilute Conditions. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 6546-6564.	4.0	25
32	A grounded coplanar waveguide technique for microwave measurement of complex permittivity and permeability. <i>IEEE Transactions on Magnetics</i> , 2006, 42, 1929-1931.	1.2	24
33	High-rate synthesis of phosphine-stabilized undecagold nanoclusters using a multilayered micromixer. <i>Nanotechnology</i> , 2010, 21, 445604.	1.3	24
34	Aqueous Synthesis of Tailored ZnO Nanocrystals, Nanocrystal Assemblies, and Nanostructured Films by Physical Means Enabled by a Continuous Flow Microreactor. <i>Crystal Growth and Design</i> , 2014, 14, 4759-4767.	1.4	24
35	Multimodal characterization of solution-processed Cu <sub>3</sub> SbS <sub>4</sub> absorbers for thin film solar cells. <i>Journal of Materials Chemistry A</i> , 2018, 6, 8682-8692.	5.2	24
36	Rapid Pulsed Light Sintering of Silver Nanowires on Woven Polyester for personal thermal management with enhanced performance, durability and cost-effectiveness. <i>Scientific Reports</i> , 2018, 8, 17159.	1.6	24

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37	Segmented Microfluidic Flow Reactors for Nanomaterial Synthesis. <i>Nanomaterials</i> , 2020, 10, 1421.	1.9	23
38	Dense CdS thin films on fluorine-doped tin oxide coated glass by high-rate microreactor-assisted solution deposition. <i>Thin Solid Films</i> , 2013, 532, 16-21.	0.8	21
39	Room temperature fabrication and patterning of highly conductive silver features using in situ reactive inks by microreactor-assisted printing. <i>Journal of Materials Chemistry C</i> , 2015, 3, 7262-7266.	2.7	21
40	Plasmonic nanopatch array with integrated metal-organic framework for enhanced infrared absorption gas sensing. <i>Nanotechnology</i> , 2017, 28, 26LT01.	1.3	20
41	Thermal annealing activates amplified photoluminescence of germanium metabolically doped in diatom biosilica. <i>Journal of Materials Chemistry</i> , 2011, 21, 10658.	6.7	19
42	The synthesis of cadmium sulfide nanoplatelets using a novel continuous flow sonochemical reactor. <i>Ultrasonics Sonochemistry</i> , 2015, 26, 452-460.	3.8	19
43	Scalably synthesized environmentally benign, aqueous-based binary nanoparticle inks for $\text{Cu}_2\text{ZnSn}(\text{S},\text{Se})_4$ photovoltaic cells achieving over 9% efficiency. <i>Sustainable Energy and Fuels</i> , 2017, 1, 267-274.	2.5	19
44	Continuous precipitation of ceria nanoparticles from a continuous flow micromixer. <i>International Journal of Advanced Manufacturing Technology</i> , 2013, 64, 579-586.	1.5	17
45	Biogenic silica based $\text{Zn}_2\text{SiO}_4:\text{Mn}^{2+}$ and $\text{Y}_2\text{SiO}_5:\text{Eu}^{3+}$ phosphor layers patterned by inkjet printing process. <i>Journal of Materials Chemistry</i> , 2008, 18, 3633.	6.7	16
46	Continuous, size and shape-control synthesis of hollow silica nanoparticles enabled by a microreactor-assisted rapid mixing process. <i>Nanotechnology</i> , 2017, 28, 235602.	1.3	16
47	Reversible Insertion of $\text{MgCl}$ Superhalides in Graphite as a Cathode for Aqueous Dual-Ion Batteries. <i>Angewandte Chemie</i> , 2020, 132, 20096-20100.	1.6	16
48	Inkjet-Printed Ternary Oxide Dielectric and Doped Interface Layer for Metal-Oxide Thin-Film Transistors with Low Voltage Operation. <i>Advanced Materials Interfaces</i> , 2021, 8, 2100728.	1.9	16
49	Capillary Rise of Nanostructured Microwicks. <i>Micromachines</i> , 2018, 9, 153.	1.4	15
50	Tuning electronic and photocatalytic properties in pulsed light synthesis of $\text{Cu}_2\text{ZnSnS}_4$ films from $\text{CuS-ZnS-SnS}$ nanoparticles. <i>Materials Research Bulletin</i> , 2020, 122, 110645.	2.7	15
51	Continuous synthesis of colloidal chalcopyrite copper indium diselenide nanocrystal inks. <i>RSC Advances</i> , 2014, 4, 16418-16424.	1.7	14
52	Microstructural Analysis of Additively Manufactured 304L Stainless Steel Oxide Dispersion Strengthened Alloy. <i>Microscopy and Microanalysis</i> , 2019, 25, 2594-2595.	0.2	14
53	Feasibility and Surface Evaluation of the Pigment from <i>Scytalidium cuboideum</i> for Inkjet Printing on Textiles. <i>Coatings</i> , 2019, 9, 266.	1.2	14
54	Downshifting and antireflective thin films for solar module power enhancement. <i>Materials and Design</i> , 2021, 201, 109454.	3.3	14

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55	Conformal growth of copper sulfide thin films on highly textured surface via microreactor-assisted solution deposition. <i>CrystEngComm</i> , 2015, 17, 2827-2836.	1.3	13
56	Continuous formation of a seed layer and vertical ZnO nanowire arrays enabled by tailored reaction kinetics in a microreactor. <i>CrystEngComm</i> , 2016, 18, 8645-8652.	1.3	13
57	Oxide dispersion strengthened 304 L stainless steel produced by ink jetting and laser powder bed fusion. <i>CIRP Annals - Manufacturing Technology</i> , 2020, 69, 193-196.	1.7	13
58	Synthesis of CuInSe <sub>2</sub> nanocrystals using a continuous hot-injection microreactor. <i>Journal of Nanoparticle Research</i> , 2012, 14, 1.	0.8	12
59	Continuous-Flow Photocatalytic Microfluidic-Reactor for the Treatment of Aqueous Contaminants, Simplicity, and Complexity: A Mini-Review. <i>Symmetry</i> , 2021, 13, 1325.	1.1	12
60	Inkjet Printing of Few-Layer Enriched Black Phosphorus Nanosheets for Electronic Devices. <i>Advanced Electronic Materials</i> , 2021, 7, 2100577.	2.6	12
61	Low-cost & low-temperature curable solution-processed silica-based nanostructured antireflective coatings on CuIn <sub>1-x</sub> Ga <sub>x</sub> Se <sub>2</sub> thin film solar cells. <i>RSC Advances</i> , 2015, 5, 24712-24717.	1.7	10
62	Microfluidics-enabled rational design for Ag-ZnO nanocomposite films for enhanced photoelectrochemical performance. <i>CrystEngComm</i> , 2020, 22, 646-653.	1.3	10
63	Nucleation and growth of oriented metal-organic framework thin films on thermal SiO <sub>2</sub> surface. <i>Thin Solid Films</i> , 2018, 659, 24-35.	0.8	9
64	Microfluidics for Two-Dimensional Nanosheets: A Mini Review. <i>Processes</i> , 2020, 8, 1067.	1.3	9
65	Nanostructured copper sulfide thin film <i>via</i> a spatial successive ionic layer adsorption and reaction process showing significant surface-enhanced infrared absorption of CO <sub>2</sub> . <i>Journal of Materials Chemistry C</i> , 2020, 8, 3069-3078.	2.7	9
66	Investigation of CdS nanoparticles formation and deposition by the continuous flow microreactor. <i>Applied Surface Science</i> , 2019, 472, 158-164.	3.1	8
67	Two-step continuous-flow synthesis of CuInSe <sub>2</sub> nanoparticles in a solar microreactor. <i>RSC Advances</i> , 2014, 4, 13827-13830.	1.7	7
68	The effects of gallium on solution-derived indium oxide-based thin film transistors manufactured on display glass. <i>RSC Advances</i> , 2015, 5, 93779-93785.	1.7	7
69	Microreactor-Assisted Solution Deposition for Compound Semiconductor Thin Films. <i>Processes</i> , 2014, 2, 441-465.	1.3	6
70	Characterization of Cotton Ball-like Au/ZnO Photocatalyst Synthesized in a Micro-Reactor. <i>Micromachines</i> , 2018, 9, 322.	1.4	6
71	Visible to infrared plasmonic absorption from silver nanostructures enabled by microreactor-assisted solution deposition. <i>CrystEngComm</i> , 2017, 19, 1265-1272.	1.3	4
72	Inkjet Printing and In-Situ Crystallization of Biopigments for Eco-Friendly and Energy-Efficient Fabric Coloration. <i>International Journal of Precision Engineering and Manufacturing - Green Technology</i> , 2022, 9, 941-953.	2.7	4

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73	Blue Luminescent Biogenic Silicon-Germanium Oxide Nanocomposites. Materials Research Society Symposia Proceedings, 2005, 873, 1.	0.1	3
74	Formation of zinc oxide films using submicron zinc particle dispersions. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2012, 30, 041805.	0.6	3
75	Fusion of Stacked Nanowires: From Atomistic to Analytical Models. Advanced Theory and Simulations, 2021, 4, 2100104.	1.3	3
76	Novel Multilayer Process for CuInSe <sub>2</sub> Thin Film Formation by Rapid Thermal Processing. Materials Research Society Symposia Proceedings, 1997, 485, 163.	0.1	2
77	Bipolar resistive switching of zinc-tin-oxide resistive random access memory. , 2011, , .		2
78	Growth kinetics of copper sulfide thin films by photochemical deposition. CrystEngComm, 2016, 18, 6748-6758.	1.3	2
79	Hydrothermal synthesis and site symmetry tuning of polycrystalline YVO <sub>4</sub> :Eu nanoparticles via a continuous-flow microreactor. Nanotechnology, 2020, 31, 235603.	1.3	2
80	A Foam-Core Meniscus Coating Process for Retrofit Anti-Reflective Coatings. Journal of Micro and Nano-Manufacturing, 2019, 7, .	0.8	2
81	Synthesis of a 316L stainless steel-copper composite by laser melting. Additive Manufacturing Letters, 2022, 3, 100058.	0.9	2
82	Chemical Solution Based MoS <sub>2</sub> Thin Film Deposition Based on Dimensional Reduction. Materials Research Society Symposia Proceedings, 2014, 1675, 215-218.	0.1	1
83	Growth Kinetics of ZnS Thin Films from a High-Rate Chemical Bath Deposition with Trisodium-Nitrioltriacetate Complexing. ECS Journal of Solid State Science and Technology, 2018, 7, P615-P623.	0.9	1
84	A Scalable Solution Route to Porous Networks of Nanostructured Black Tungsten. Nanomaterials, 2021, 11, 2304.	1.9	1
85	Biosynthesis and Electron Microscopy Characterization of Diatom Nanocomposites. Materials Research Society Symposia Proceedings, 2005, 901, 1.	0.1	0
86	Air-stable solution-deposited chalcopyrite CuIn <sub>1-x</sub> Ga <sub>x</sub> Se <sub>2</sub> thin film solar cells. , 2011, , .		0
87	64-4:Invited Paper: Printed Metal Oxide Transistors. Digest of Technical Papers SID International Symposium, 2016, 47, 876-879.	0.1	0
88	On the unusual amber coloration of nanoporous sol-gel processed Al-doped silica glass: An experimental study. Scientific Reports, 2019, 9, 12474.	1.6	0
89	Nanocrystalline semiconductors for thin-film devices by microreactor-assisted chemical solution deposition. , 2021, , 167-194.		0