Y-L Chueh

List of Publications by Citations

342 papers	13,872 citations	55 h-index	106 g-index
358 ext. papers	15,722 ext. citations	9 avg, IF	6.44 L-index

#	Paper	IF	Citations
342	Three-dimensional nanopillar-array photovoltaics on low-cost and flexible substrates. *Nature Materials*, **2009**, 8, 648-53	27	909
341	Ultrahigh-gain photodetectors based on atomically thin graphene-MoS2 heterostructures. *Scientific Reports*, **2014**, 4, 3826	4.9	678
340	Fiber-based all-solid-state flexible supercapacitors for self-powered systems. *ACS Nano*, **2012**, 6, 9200-6	16.7	554
339	Dual-gated MoS2/WSe2 van der Waals tunnel diodes and transistors. *ACS Nano*, **2015**, 9, 2071-9	16.7	441
338	A review of rechargeable batteries for portable electronic devices. *Informa Materiy*, **2019**, 1, 6-32	23.1	400
337	Toward the Development of Printable Nanowire Electronics and Sensors. *Advanced Materials*, **2009**, 21, 3730-3743	24	336
336	Diameter-dependent electron mobility of InAs nanowires. *Nano Letters*, **2009**, 9, 360-5	11.5	328
335	Ultrathin compound semiconductor on insulator layers for high-performance nanoscale transistors. *Nature*, **2010**, 468, 286-9	50.4	327
334	Ordered arrays of dual-diameter nanopillars for maximized optical absorption. *Nano Letters*, **2010**, 10, 3823-7	11.5	249
333	Polarization-resolved black phosphorus/molybdenum disulfide mid-wave infrared photodiodes with high detectivity at room temperature. *Nature Photonics*, **2018**, 12, 601-607	33.9	226
332	p-Type InP nanopillar photocathodes for efficient solar-driven hydrogen production. *Angewandte Chemie - International Edition*, **2012**, 51, 10760-4	16.4	226
331	Systematic Study of the Growth of Aligned Arrays of Fe2O3 and Fe3O4 Nanowires by a Vapor Solid Process. *Advanced Functional Materials*, **2006**, 16, 2243-2251	15.6	222
330	Metal-catalyzed crystallization of amorphous carbon to graphene. *Applied Physics Letters*, **2010**, 96, 063110	3.4	208
329	Direct Synthesis and Practical Bandgap Estimation of Multilayer Arsenene Nanoribbons. *Chemistry of Materials*, **2016**, 28, 425-429	9.6	189
328	Honeycomb-like Porous Carbon-Cobalt Oxide Nanocomposite for High-Performance Enzymeless Glucose Sensor and Supercapacitor Applications. *ACS Applied Materials & Interfaces*, **2015**, 7, 15812-20	9.5	180
327	Lead-Free Perovskite Nanowire Array Photodetectors with Drastically Improved Stability in Nanoengineering Templates. *Nano Letters*, **2017**, 17, 523-530	11.5	177
326	13% efficiency hybrid organic/silicon-nanowire heterojunction solar cell via interface engineering. *ACS Nano*, **2013**, 7, 10780-7	16.7	175

325	Wafer Scale Phase-Engineered 1T- and 2H-MoSe /Mo Core-Shell 3D-Hierarchical Nanostructures toward Efficient Electrocatalytic Hydrogen Evolution Reaction. *Advanced Materials*, **2016**, 28, 9831-9838	24	156
324	Oxygen defect and Si nanocrystal dependent white-light and near-infrared electroluminescence of Si-implanted and plasma-enhanced chemical-vapor deposition-grown Si-rich SiO2. *Journal of Applied Physics*, **2005**, 97, 094306	2.5	154
323	Low-temperature growth and interface characterization of BiFeO3 thin films with reduced leakage current. *Applied Physics Letters*, **2005**, 87, 172901	3.4	137
322	Probing surface band bending of surface-engineered metal oxide nanowires. *ACS Nano*, **2012**, 6, 9366-72	16.7	136
321	RuO2 Nanowires and RuO2/TiO2 Core/Shell Nanowires: From Synthesis to Mechanical, Optical, Electrical, and Photoconductive Properties. *Advanced Materials*, **2007**, 19, 143-149	24	133
320	Hollow NiCo2S4 Nanospheres Hybridized with 3D Hierarchical Porous rGO/Fe2O3 Composites toward High-Performance Energy Storage Device. *Advanced Energy Materials*, **2018**, 8, 1703453	21.8	125
319	ZnO1-x nanorod arrays/ZnO thin film bilayer structure: from homojunction diode and high-performance memristor to complementary 1D1R application. *ACS Nano*, **2012**, 6, 8407-14	16.7	113
318	p-Type alpha-Fe2O3 nanowires and their n-type transition in a reductive ambient. *Small*, **2007**, 3, 1356-61	11	106
317	Manipulated transformation of filamentary and homogeneous resistive switching on ZnO thin film memristor with controllable multistate. *ACS Applied Materials & Interfaces*, **2013**, 5, 6017-23	9.5	100
316	Magnetic and Electrical Characterizations of Half-Metallic Fe3O4 Nanowires. *Advanced Materials*, **2007**, 19, 2290-2294	24	100
315	Room temperature multiplexed gas sensing using chemical-sensitive 3.5-nm-thin silicon transistors. *Science Advances*, **2017**, 3, e1602557	14.3	98
314	Nitrogen-doped tungsten oxide nanowires: low-temperature synthesis on Si, and electrical, optical, and field-emission properties. *Small*, **2007**, 3, 658-64	11	98
313	TaSi2 nanowires: A potential field emitter and interconnect. *Nano Letters*, **2006**, 6, 1637-44	11.5	98
312	Controlled growth of carbon nanotube-graphene hybrid materials for flexible and transparent conductors and electron field emitters. *Nanoscale*, **2012**, 4, 632-8	7.7	97
311	Single-crystalline branched zinc phosphide nanostructures: synthesis, properties, and optoelectronic devices. *Nano Letters*, **2007**, 7, 269-75	11.5	96
310	Single CuO(x) nanowire memristor: forming-free resistive switching behavior. *ACS Applied Materials & Interfaces*, **2014**, 6, 16537-44	9.5	95
309	Van der Waals heteroepitaxial AZO/NiO/AZO/muscovite (ANA/muscovite) transparent flexible memristor. *Nano Energy*, **2019**, 56, 322-329	17.1	93
308	Quantum confinement effects in nanoscale-thickness InAs membranes. *Nano Letters*, **2011**, 11, 5008-12	11.5	88

307	Electrostatically Charged MoS/Graphene Oxide Hybrid Composites for Excellent Electrochemical Energy Storage Devices. *ACS Applied Materials & Interfaces*, **2018**, 10, 35571-35579	9.5	86
306	Supersensitive, ultrafast, and broad-band light-harvesting scheme employing carbon nanotube/TiO2 core-shell nanowire geometry. *ACS Nano*, **2012**, 6, 6687-92	16.7	76
305	Significant efficiency enhancement of hybrid solar cells using core-shell nanowire geometry for energy harvesting. *ACS Nano*, **2011**, 5, 9501-10	16.7	75
304	Synthesis of taperlike Si nanowires with strong field emission. *Applied Physics Letters*, **2005**, 86, 133112	3.4	75
303	Nanoscale InGaSb heterostructure membranes on Si substrates for high hole mobility transistors. *Nano Letters*, **2012**, 12, 2060-6	11.5	74
302	Monolithic 3D CMOS Using Layered Semiconductors. *Advanced Materials*, **2016**, 28, 2547-54	24	72
301	Graphene-coated copper nanowire networks as a highly stable transparent electrode in harsh environments toward efficient electrocatalytic hydrogen evolution reactions. *Journal of Materials Chemistry A*, **2017**, 5, 13320-13328	13	71
300	Ultra-Fast Synthesis of Graphene and Highly Oriented Graphite by Rapid Microwave Heating Process. *Science of Advanced Materials*, **2014**, 6, 1-8	2.3	70
299	Wafer-Scale Growth of WSe2 Monolayers Toward Phase-Engineered Hybrid WOx/WSe2 Films with Sub-ppb NOx Gas Sensing by a Low-Temperature Plasma-Assisted Selenization Process. *Chemistry of Materials*, **2017**, 29, 1587-1598	9.6	66
298	Black Ge based on crystalline/amorphous core/shell nanoneedle arrays. *Nano Letters*, **2010**, 10, 520-3	11.5	65
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295	An ultrasensitive flexible pressure sensor for multimodal wearable electronic skins based on large-scale polystyrene ball@reduced graphene-oxide core□shell nanoparticles. *Journal of Materials Chemistry C*, **2018**, 6, 5514-5520	7.1	63
294	Nanoscale doping of InAs via sulfur monolayers. *Applied Physics Letters*, **2009**, 95, 072108	3.4	63
293	A superior dye adsorbent towards the hydrogen evolution reaction combining active sites and phase-engineering of (1T/2H) MoS2/□MoO3 hybrid heterostructured nanoflowers. *Journal of Materials Chemistry A*, **2018**, 6, 15320-15329	13	63
292	Perovskite Quantum Dots with Near Unity Solution and Neat-Film Photoluminescent Quantum Yield by Novel Spray Synthesis. *Advanced Materials*, **2018**, 30, 1705532	24	61
291	Epitaxial photostriction-magnetostriction coupled self-assembled nanostructures. *ACS Nano*, **2012**, 6, 6952-9	16.7	59
290	Hybrid core-shell nanowire forests as self-selective chemical connectors. *Nano Letters*, **2009**, 9, 2054-8	11.5	56

289	Formation and characterization of NixInAs/InAs nanowire heterostructures by solid source reaction. *Nano Letters*, **2008**, 8, 4528-33	11.5	56
288	Highly stable nitrogen-doped carbon nanotubes derived from carbon dots and metal-organic frameworks toward excellent efficient electrocatalyst for oxygen reduction reaction. *Nano Energy*, **2019**, 63, 103788	17.1	55
287	Phase-Engineered PtSe -Layered Films by a Plasma-Assisted Selenization Process toward All PtSe -Based Field Effect Transistor to Highly Sensitive, Flexible, and Wide-Spectrum Photoresponse Photodetectors. *Small*, **2018**, 14, e1800032	11	54
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285	A critical review on two-dimensional quantum dots (2D QDs): From synthesis toward applications in energy and optoelectronics. *Progress in Quantum Electronics*, **2019**, 68, 100226	9.1	53
284	Large scale single-crystal Cu(In,Ga)Se2 nanotip arrays for high efficiency solar cell. *Nano Letters*, **2011**, 11, 4443-8	11.5	53
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278	Hybridizing Plasmonic Materials with 2D-Transition Metal Dichalcogenides toward Functional Applications. *Small*, **2020**, 16, e1904271	11	49
277	Toward efficient and omnidirectional n-type Si solar cells: concurrent improvement in optical and electrical characteristics by employing microscale hierarchical structures. *ACS Nano*, **2014**, 8, 2959-69	16.7	47
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275	Ferroelectricity of HfZrO2 in Energy Landscape With Surface Potential Gain for Low-Power Steep-Slope Transistors. *IEEE Journal of the Electron Devices Society*, **2015**, 3, 377-381	2.3	46
274	Resistive switching of Au/ZnO/Au resistive memory: an in situ observation of conductive bridge formation. *Nanoscale Research Letters*, **2012**, 7, 559	5	46
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272	Synthesis of ethanol-soluble few-layer graphene nanosheets for flexible and transparent conducting composite films. *Nanotechnology*, **2011**, 22, 295606	3.4	45

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270	Highly effective field-effect mobility amorphous InGaZnO TFT mediated by directional silver nanowire arrays. *ACS Applied Materials & Interfaces*, **2015**, 7, 232-40	9.5	41
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267	Interface enhanced well-dispersed Co9S8 nanocrystals as an efficient polysulfide host in lithium□sulfur batteries. *Journal of Energy Chemistry*, **2020**, 48, 109-115	12	41
266	Pressure Welding of Silver Nanowires Networks at Room Temperature as Transparent Electrodes for Efficient Organic Light-Emitting Diodes. *Small*, **2018**, 14, e1800541	11	40
265	Electricity generation based on vertically aligned PbZr0.2Ti0.8O3 nanowire arrays. *Nano Energy*, **2012**, 1, 424-428	17.1	40
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262	A solar-thermal energy harvesting scheme: enhanced heat capacity of molten HITEC salt mixed with Sn/SiO(x) core-shell nanoparticles. *Nanoscale*, **2014**, 6, 4555-9	7.7	38
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241	Self-Selecting Resistive Switching Scheme Using TiO Nanorod Arrays. *Scientific Reports*, **2017**, 7, 2066	4.9	30
240	Hierarchically Interconnected Ni3S2 Nanofibers as Binder-Free Electrodes for High-Performance Sodium-Ion Energy-Storage Devices. *ACS Applied Nano Materials*, **2019**, 2, 2634-2641	5.6	30
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220	Solution-based silk fibroin dielectric in n-type C60 organic field-effect transistors: Mobility enhancement by the pentacene interlayer. *Applied Physics Letters*, **2013**, 103, 233304	3.4	27
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195	Flexible high performance hybrid AZO/Ag-nanowire/AZO sandwich structured transparent conductors for flexible Cu(In,Ga)Se2 solar cell applications. *Journal of Materials Chemistry A*, **2016**, 4, 6980-6988	13	21
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List of Publications

1	Metal- and Alloy-Based Core–Shell Particles in Nitrate Senary Salt with Low Thermal Hysteresis for Solar Thermal Energy Storage. *ACS Applied Energy Materials*, **2022**, 5, 2697-2705	6.1