Chih-Jen Shih

List of Publications by Year
in descending order

69 papers	6,942 citations	101543 36 h-index	98798 67 g-index
71 all docs	71 docs citations	71 times ranked	11092 citing authors

#	Article	IF	Citations
1	Stabilization of Lead-Reduced Metal Halide Perovskite Nanocrystals by High-Entropy Alloying. Journal of the American Chemical Society, 2022, 144, 5864-5870.	13.7	20
2	Anisotropic nanocrystal superlattices overcoming intrinsic light outcoupling efficiency limit in perovskite quantum dot light-emitting diodes. Nature Communications, 2022, 13, 2106.	12.8	34
3	Ligand-assisted solid phase synthesis of mixed-halide perovskite nanocrystals for color-pure and efficient electroluminescence. Journal of Materials Chemistry C, 2021, 9, 5771-5778.	5.5	10
4	Continuous color tuning of single-fluorophore emission via polymerization-mediated through-space charge transfer. Science Advances, 2021, 7, .	10.3	43
5	State of the Art and Prospects for Halide Perovskite Nanocrystals. ACS Nano, 2021, 15, 10775-10981.	14.6	705
6	23.7: Invited Paper: High Performance Perovskite Quantum Dot Lightâ€Emitting Diodes Featuring Outcouplingâ€Enhanced Twoâ€Dimensional Superlattices. Digest of Technical Papers SID International Symposium, 2021, 52, 307-307.	0.3	0
7	Nanomaterials for molecular signal amplification in electrochemical nucleic acid biosensing: recent advances and future prospects for point-of-care diagnostics. Molecular Systems Design and Engineering, 2020, 5, 49-66.	3.4	53
8	Electronic Polarizability as the Fundamental Variable in the Dielectric Properties of Two-Dimensional Materials. Nano Letters, 2020, 20, 841-851.	9.1	70
9	Blue electroluminescent metal halide perovskites. Journal of Applied Physics, 2020, 128, 120901.	2.5	4
10	Phosphorescent Îº³â€(N^C^C)â€Gold(III) Complexes: Synthesis, Photophysics, Computational Studies and Application to Solutionâ€Processable OLEDs. Chemistry - A European Journal, 2020, 26, 17604-17612.	3.3	15
11	Highly Efficient Green Solution Processable Organic Light-Emitting Diodes Based on a Phosphorescent Îº3-(N^C^C)Gold(III)-Alkynyl Complex. Chemistry of Materials, 2020, 32, 1605-1611.	6.7	37
12	Scalable photonic sources using two-dimensional lead halide perovskite superlattices. Nature Communications, 2020, 11, 387.	12.8	29
13	Macroscopic Salt Rejection through Electrostatically Gated Nanoporous Graphene. Nano Letters, 2019, 19, 6400-6409.	9.1	18
14	Monochromatic LEDs based on perovskite quantum dots: Opportunities and challenges. Journal of the Society for Information Display, 2019, 27, 667-678.	2.1	7
15	Layered metal vanadates with different interlayer cations for high-rate Na-ion storage. Journal of Materials Chemistry A, 2019, 7, 16109-16116.	10.3	26
16	Efficient perovskite nanocrystal light-emitting diodes using a benzimidazole-substituted anthracene derivative as the electron transport material. Journal of Materials Chemistry C, 2019, 7, 8938-8945.	5.5	12
17	Flexible Green Perovskite Light Emitting Diodes. IEEE Journal of the Electron Devices Society, 2019, 7, 769-775.	2.1	6
18	Molecular Orientation Effects in Organic Lightâ€Emitting Diodes. Helvetica Chimica Acta, 2019, 102, e1900048.	1.6	29

#	Article	IF	Citations
19	Understanding the Ligand Effects on Photophysical, Optical, and Electroluminescent Characteristics of Hybrid Lead Halide Perovskite Nanocrystal Solids. Journal of Physical Chemistry Letters, 2019, 10, 7560-7567.	4.6	49
20	Length- and Thickness-Dependent Optical Response of Liquid-Exfoliated Transition Metal Dichalcogenides. Chemistry of Materials, 2019, 31, 10049-10062.	6.7	57
21	Mixing Entropy-Induced Layering Polydispersity Enabling Efficient and Stable Perovskite Nanocrystal Light-Emitting Diodes. ACS Energy Letters, 2019, 4, 118-125.	17.4	24
22	Conformal Deposition of Conductive Single-Crystalline Cobalt Silicide Layer on Si Wafer via a Molecular Approach. Chemistry of Materials, 2018, 30, 2168-2173.	6.7	2
23	Spectroscopic Size and Thickness Metrics for Liquid-Exfoliated <i>h</i>-BN. Chemistry of Materials, 2018, 30, 1998-2005.	6.7	65
24	Asymmetric electric field screening in van der Waals heterostructures. Nature Communications, 2018, 9, 1271.	12.8	38
25	Colloidal CsPbX₃ (X = Cl, Br, I) Nanocrystals 2.0: Zwitterionic Capping Ligands for Improved Durability and Stability. ACS Energy Letters, 2018, 3, 641-646.	17.4	647
26	An Elastic Interfacial Transistor Enabled by Superhydrophobicity. Small, 2018, 14, e1804006.	10.0	6
27	Interfacial Field-Effect Transistors: An Elastic Interfacial Transistor Enabled by Superhydrophobicity (Small 51/2018). Small, 2018, 14, 1870247.	10.0	0
28	18-2: Ultrapure Green Light-Emitting Diodes using Colloidal Quantum Wells of Hybrid Lead Halide Perovskites. Digest of Technical Papers SID International Symposium, 2018, 49, 214-217.	0.3	3
29	Exploration of Near-Infrared-Emissive Colloidal Multinary Lead Halide Perovskite Nanocrystals Using an Automated Microfluidic Platform. ACS Nano, 2018, 12, 5504-5517.	14.6	138
30	Quantum Confined Colloidal Perovskite Nanoplatelets for Extremely Pure Green and Efficient LEDs. , 2018, , .		1
31	Low-Temperature Wet Conformal Nickel Silicide Deposition for Transistor Technology through an Organometallic Approach. ACS Applied Materials & Interfaces, 2017, 9, 4948-4955.	8.0	1
32	Dismantling the â€œRed Wallâ€•of Colloidal Perovskites: Highly Luminescent Formamidinium and Formamidiniumâ€"Cesium Lead Iodide Nanocrystals. ACS Nano, 2017, 11, 3119-3134.	14.6	414
33	Layer-controlled two-dimensional perovskites: synthesis and optoelectronics. Journal of Materials Chemistry C, 2017, 5, 5610-5627.	5.5	60
34	Doping-Driven Wettability of Two-Dimensional Materials: A Multiscale Theory. Langmuir, 2017, 33, 12827-12837.	3.5	10
35	Molecular Epitaxy on Two-Dimensional Materials: The Interplay between Interactions. Industrial & Engineering Chemistry Research, 2017, 56, 10552-10581.	3.7	29
36	Ultrapure Green Light-Emitting Diodes Using Two-Dimensional Formamidinium Perovskites: Achieving Recommendation 2020 Color Coordinates. Nano Letters, 2017, 17, 5277-5284.	9.1	221

#	Article	IF	Citations
37	Design and Synthesis of Heteroleptic Iridium(III) Phosphors for Efficient Organic Light-Emitting Devices. Inorganic Chemistry, 2017, 56, 15304-15313.	4.0	20
38	Understanding the colloidal dispersion stability of 1D and 2D materials: Perspectives from molecular simulations and theoretical modeling. Advances in Colloid and Interface Science, 2017, 244, 36-53.	14.7	37
39	Aggregation-induced emission in lamellar solids of colloidal perovskite quantum wells. Science Advances, 2017, 3, eaaq0208.	10.3	65
40	Engineering Two-dimensional Materials Surface Chemistry. Chimia, 2016, 70, 800.	0.6	2
41	Efficient Blue Electroluminescence Using Quantum-Confined Two-Dimensional Perovskites. ACS Nano, 2016, 10, 9720-9729.	14.6	299
42	Layered and scrolled nanocomposites with aligned semi-infinite graphene inclusions at the platelet limit. Science, 2016, 353, 364-367.	12.6	125
43	Multiscale Analysis for Field-Effect Penetration through Two-Dimensional Materials. Nano Letters, 2016, 16, 5044-5052.	9.1	28
44	Layer Number Dependence of MoS₂ Photoconductivity Using Photocurrent Spectral Atomic Force Microscopic Imaging. ACS Nano, 2015, 9, 2843-2855.	14.6	84
45	Partially-Screened Field Effect and Selective Carrier Injection at Organic Semiconductor/Graphene Heterointerface. Nano Letters, 2015, 15, 7587-7595.	9.1	58
46	Understanding the Stabilization of Single-Walled Carbon Nanotubes and Graphene in Ionic Surfactant Aqueous Solutions: Large-Scale Coarse-Grained Molecular Dynamics Simulation-Assisted DLVO Theory. Journal of Physical Chemistry C, 2015, 119, 1047-1060.	3.1	50
47	Tuning Onâ€"Off Current Ratio and Field-Effect Mobility in a MoS₂â€"Graphene Heterostructure <i>via</i> Schottky Barrier Modulation. ACS Nano, 2014, 8, 5790-5798.	14.6	240
48	Evolution of Physical and Electronic Structures of Bilayer Graphene upon Chemical Functionalization. Journal of the American Chemical Society, 2013, 135, 18866-18875.	13.7	43
49	Wetting translucency of graphene. Nature Materials, 2013, 12, 866-869.	27.5	241
50	Metallized DNA nanolithography for encoding and transferring spatial information for graphene patterning. Nature Communications, 2013, 4, 1663.	12.8	155
51	Charge Transfer at Junctions of a Single Layer of Graphene and a Metallic Single Walled Carbon Nanotube. Small, 2013, 9, 1954-1963.	10.0	24
52	Disorder Imposed Limits of Mono- and Bilayer Graphene Electronic Modification Using Covalent Chemistry. Nano Letters, 2013, 13, 809-817.	9.1	62
53	Understanding and controlling the substrate effect on graphene electron-transfer chemistry via reactivity imprint lithography. Nature Chemistry, 2012, 4, 724-732.	13.6	463
54	Understanding the pH-Dependent Behavior of Graphene Oxide Aqueous Solutions: A Comparative Experimental and Molecular Dynamics Simulation Study. Langmuir, 2012, 28, 235-241.	3.5	517

#	Article	IF	Citations
55	Breakdown in the Wetting Transparency of Graphene. Physical Review Letters, 2012, 109, 176101.	7.8	313
56	Understanding Surfactant/Graphene Interactions Using a Graphene Field Effect Transistor: Relating Molecular Structure to Hysteresis and Carrier Mobility. Langmuir, 2012, 28, 8579-8586.	3.5	53
57	Molecular Insights into the Surface Morphology, Layering Structure, and Aggregation Kinetics of Surfactant-Stabilized Graphene Dispersions. Journal of the American Chemical Society, 2011, 133, 12810-12823.	13.7	140
58	A Compositional Window of Kinetic Stability for Amphiphilic Polymers and Colloidal Nanorods. Journal of Physical Chemistry C, 2011, 115, 7164-7170.	3.1	7
59	Click Chemistry on Solution-Dispersed Graphene and Monolayer CVD Graphene. Chemistry of Materials, 2011, 23, 3362-3370.	6.7	169
60	Bi- and trilayer graphene solutions. Nature Nanotechnology, 2011, 6, 439-445.	31.5	337
61	Understanding the Stabilization of Liquid-Phase-Exfoliated Graphene in Polar Solvents: Molecular Dynamics Simulations and Kinetic Theory of Colloid Aggregation. Journal of the American Chemical Society, 2010, 132, 14638-14648.	13.7	260
62	Phase field modeling of convective and morphological instability during directional solidification of an alloy. Journal of Crystal Growth, 2006, 295, 202-208.	1.5	23
63	Phase field modeling of excimer laser crystallization of thin silicon films on amorphous substrates. Journal of Applied Physics, 2006, 100, 053504.	2.5	13
64	A simple approach toward quantitative phase field simulation for dilute-alloy solidification. Journal of Crystal Growth, 2005, 282, 515-524.	1.5	11
65	Quantitative phase field simulation of deep cells in directional solidification of an alloy. Acta Materialia, 2005, 53, 2285-2294.	7.9	29
66	Efficient phase field simulation of a binary dendritic growth in a forced flow. Physical Review E, 2004, 69, 031601.	2.1	42
67	Long-time scale morphological dynamics near the onset of instability during directional solidification of an alloy. Journal of Crystal Growth, 2004, 264, 379-384.	1.5	16
68	Phase field simulation of non-isothermal free dendritic growth of a binary alloy in a forced flow. Journal of Crystal Growth, 2004, 264, 472-482.	1.5	63
69	Adaptive phase field simulation of non-isothermal free dendritic growth of a binary alloy. Acta Materialia, 2003, 51, 1857-1869.	7.9	62