Hanyu Zhang

List of Publications by Year
in descending order

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Version: 2024-02-01

35 papers	1,443 citations	393982 19 h-index	377514 34 g-index
37 all docs	37 docs citations	37 times ranked	2640 citing authors

#	Article	IF	Citations
1	Wide Band Gap Chalcogenide Semiconductors. Chemical Reviews, 2020, 120, 4007-4055.	23.0	246
2	Balancing the Hydrogen Evolution Reaction, Surface Energetics, and Stability of Metallic MoS₂ Nanosheets via Covalent Functionalization. Journal of the American Chemical Society, 2018, 140, 441-450.	6.6	241
3	Modulating Optoelectronic Properties of Two-Dimensional Transition Metal Dichalcogenide Semiconductors by Photoinduced Charge Transfer. ACS Nano, 2016, 10, 1671-1680.	7.3	154
4	Pseudocapacitive Storage in Nanolayered Ti₂NT_xMXene Using Mg-Ion Electrolyte. ACS Applied Nano Materials, 2019, 2, 2785-2795.	2.4	92
5	Electrocatalytic and Optoelectronic Characteristics of the Two-Dimensional Titanium Nitride Ti₄N₃T_x MXene. ACS Applied Materials & Interfaces, 2019, 11, 11812-11823.	4.0	87
6	Understanding Solvent Effects on the Properties of Two-Dimensional Transition Metal Dichalcogenides. ACS Applied Materials & Interfaces, 2016, 8, 8864-8869.	4.0	67
7	Dynamic and Progressive Control of DNA Origami Conformation by Modulating DNA Helicity with Chemical Adducts. ACS Nano, 2016, 10, 4989-4996.	7.3	61
8	Nanoscale mapping of hydrogen evolution on metallic and semiconducting MoS₂ nanosheets. Nanoscale Horizons, 2019, 4, 619-624.	4.1	46
9	Photodynamic inactivation of methicillin-resistant Staphylococcus aureus and Escherichia coli: A metalloporphyrin comparison. Journal of Photochemistry and Photobiology B: Biology, 2016, 165, 51-57.	1.7	43
10	Spatially Resolved Persistent Photoconductivity in MoS₂â€“WS₂ Lateral Heterostructures. ACS Nano, 2020, 14, 14080-14090.	7.3	36
11	Engineering Chemically Exfoliated Largeâ€Area Twoâ€Dimensional MoS₂ Nanolayers with Porphyrins for Improved Light Harvesting. ChemPhysChem, 2016, 17, 2854-2862.	1.0	32
12	Tailoring photoelectrochemical properties of semiconducting transition metal dichalcogenide nanolayers with porphyrin functionalization. Journal of Materials Chemistry C, 2017, 5, 11233-11238.	2.7	28
13	Mechanisms of Hydrogen Evolution Reaction in Two-Dimensional Nitride MXenes Using In Situ X-Ray Absorption Spectroelectrochemistry. ACS Catalysis, 2021, 11, 3128-3136.	5.5	28
14	Dynamics of Photocatalytic Hydrogen Production in Aqueous Dispersions of Monolayer-Rich Tungsten Disulfide. ACS Energy Letters, 2018, 3, 2223-2229.	8.8	26
15	Unique interfacial thermodynamics of few-layer 2D MoS₂ for (photo)electrochemical catalysis. Energy and Environmental Science, 2019, 12, 1648-1656.	15.6	25
16	Multiplexed Optical Detection of Plasma Porphyrins Using DNA Aptamer-Functionalized Carbon Nanotubes. Analytical Chemistry, 2013, 85, 8391-8396.	3.2	22
17	Accessibility and External versus Intercalative Binding to DNA As Assessed by Oxygen-Induced Quenching of the Palladium(II)-Containing Cationic Porphyrins Pd(T4) and Pd(tD4). Biochemistry, 2014, 53, 714-724.	1.2	22
18	DNA Oligonucleotide Templated Nanohybrids Using Electronic Type Sorted Carbon Nanotubes for Light Harvesting. Advanced Materials, 2012, 24, 5447-5451.	11.1	21

#	Article	IF	Citations
19	Understanding Photophysical Interactions of Semiconducting Carbon Nanotubes with Porphyrin Chromophores. Journal of Physical Chemistry C, 2014, 118, 11612-11619.	1.5	21
20	Plasmonic Hot Hole Transfer in Gold Nanoparticle-Decorated Transition Metal Dichalcogenide Nanosheets. ACS Photonics, 2020, 7, 197-202.	3.2	21
21	Microsecond charge separation at heterojunctions between transition metal dichalcogenide monolayers and single-walled carbon nanotubes. Materials Horizons, 2019, 6, 2103-2111.	6.4	17
22	Plasmon-Mediated Coherent Superposition of Discrete Excitons under Strong Excitonâ€“Plasmon Coupling in Few-Layer MoS₂ at Room Temperature. ACS Photonics, 2020, 7, 1129-1134.	3.2	15
23	Atomlike interaction and optically tunable giant band-gap renormalization in large-area atomically thin MoS2. Physical Review B, 2021, 104, .	1.1	15
24	Interference Provides Clarity: Direct Observation of 2D Materials at Fluidâ€“Fluid Interfaces. ACS Nano, 2020, 14, 777-790.	7.3	12
25	Measuring Photoexcited Free Charge Carriers in Mono- to Few-Layer Transition-Metal Dichalcogenides with Steady-State Microwave Conductivity. Journal of Physical Chemistry Letters, 2020, 11, 99-107.	2.1	11
26	Disentangling oxygen and water vapor effects on optoelectronic properties of monolayer tungsten disulfide. Nanoscale, 2020, 12, 8344-8354.	2.8	11
27	Modulating donorâ€“acceptor transition energies in phosphorusâ€“boron co-doped silicon nanocrystals via X- and L-type ligands. Faraday Discussions, 2020, 222, 201-216.	1.6	9
28	Probing Activities of Individual Catalytic Nanoflakes by Tunneling Mode of Scanning Electrochemical Microscopy. Journal of Physical Chemistry C, 2021, 125, 25525-25532.	1.5	7
29	Ultrastrong Coupling Leads to Slowed Cooling of Hot Excitons in Few-Layer Transition-Metal Dichalcogenides. Journal of Physical Chemistry C, 2022, 126, 8710-8719.	1.5	6
30	Regeneration of Light-Harvesting Complexes via Dynamic Replacement of Photodegraded Chromophores. ACS Applied Materials & Interfaces, 2015, 7, 7833-7837.	4.0	5
31	Stabilizing the heavily-doped and metallic phase of MoS₂ monolayers with surface functionalization. 2D Materials, 2022, 9, 015033.	2.0	5
32	Imaging the Thickness of Passivation Layers for Crystalline Silicon with Micronâ€Scale Spatial Resolution Using Spectral Photoluminescence. Solar Rrl, 2017, 1, 1700157.	3.1	3
33	Interplay between microstructure, defect states, and mobile charge generation in transition metal dichalcogenide heterojunctions. Nanoscale, 2021, 13, 8188-8198.	2.8	2
34	DNA binding of Pd(TC3), a conformable cationic porphyrin with a long-lived triplet state. Dalton Transactions, 2016, 45, 14277-14284.	1.6	0
35	Applying Dynamic Strain on Thin Oxide Films Immobilized on a Pseudoelastic Nickel-Titanium Alloy. Journal of Visualized Experiments, 2020, , .	0.2	0