Yucheng Huang

List of Publications by Year
in descending order

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77 papers	2,315 citations	159585 30 h-index	233421 45 g-index
79 all docs	79 docs citations	79 times ranked	3468 citing authors

#	Article	IF	Citations
1	Three-in-One: Sensing, Self-Assembly, and Cascade Catalysis of Cyclodextrin Modified Gold Nanoparticles. Journal of the American Chemical Society, 2016, 138, 16645-16654.	13.7	269
2	Two-dimensional few-layer group-III metal monochalcogenides as effective photocatalysts for overall water splitting in the visible range. Journal of Materials Chemistry A, 2018, 6, 22768-22777.	10.3	90
3	Stabilities, and electronic and piezoelectric properties of two-dimensional tin dichalcogenide derived Janus monolayers. Journal of Materials Chemistry C, 2019, 7, 13203-13210.	5.5	72
4	A Highly Efficient, Cleanâ€Surface, Porous Platinum Electrocatalyst and the Inhibition Effect of Surfactants on Catalytic Activity. Chemistry - A European Journal, 2013, 19, 240-248.	3.3	71
5	First-principles study on intrinsic defects of SnSe. RSC Advances, 2017, 7, 27612-27618.	3.6	69
6	Screening a Suitable Mo Form Supported on Graphdiyne for Effectively Electrocatalytic N₂ Reduction Reaction: From Atomic Catalyst to Cluster Catalyst. Journal of Physical Chemistry Letters, 2020, 11, 8128-8137.	4.6	69
7	Versatile Electronic and Magnetic Properties of SnSe₂ Nanostructures Induced by the Strain. Journal of Physical Chemistry C, 2014, 118, 9251-9260.	3.1	68
8	Thermostable nitrogen-doped HTiNbO5 nanosheets with a high visible-light photocatalytic activity. Nano Research, 2011, 4, 635-647.	10.4	61
9	Facet dependent binding and etching: Ultra-sensitive colorimetric visualization of blood uric acid by unmodified silver nanoprisms. Biosensors and Bioelectronics, 2014, 59, 227-232.	10.1	55
10	Carbon Dot Nanozymes: How to Be Close to Natural Enzymes. Chemistry - A European Journal, 2019, 25, 954-960.	3.3	50
11	Tuning the Carrier Confinement in GeS/Phosphorene van der Waals Heterostructures. Small, 2018, 14, 1703536.	10.0	48
12	Stabilities, Electronic and Optical Properties of SnSe_{2(1â€“x)}S_{2x} Alloys: A First-Principles Study. Journal of Physical Chemistry C, 2016, 120, 5839-5847.	3.1	45
13	Highly efficient photocatalytic water splitting utilizing a WO_{3â^'x}/ZnIn₂S₄ ultrathin nanosheet Z-scheme catalyst. Journal of Materials Chemistry A, 2021, 9, 908-914.	10.3	45
14	Layer-dependent electronic properties of phosphorene-like materials and phosphorene-based van der Waals heterostructures. Nanoscale, 2017, 9, 8616-8622.	5.6	44
15	Boosting Electrocatalytic N₂ Reduction to NH₃ over Two-Dimensional Gallium Selenide by Defect-Size Engineering. Inorganic Chemistry, 2020, 59, 4858-4867.	4.0	44
16	Confining single Pt atoms from Pt clusters on multi-armed CdS for enhanced photocatalytic hydrogen evolution. Journal of Materials Chemistry A, 2022, 10, 4594-4600.	10.3	43
17	Site Occupation of Eu²⁺ in Ba_{2â€“x}Sr_xSiO₄ (x = 0â€“1.9) and Origin of Improved Luminescence Thermal Stability in the Intermediate Composition. Inorganic Chemistry, 2018, 57, 7090-7096.	4.0	42
18	Electronic Properties of Ce³⁺-Doped Sr₃Al₂O₅Cl₂: A Combined Spectroscopic and Theoretical Study. Journal of Physical Chemistry C, 2015, 119, 6785-6792.	3.1	41

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19	First-principles study of Ce-doped Y3Al5O12 with Siâ€“N incorporation: electronic structures and optical properties. Journal of Materials Chemistry C, 2016, 4, 5214-5221.	5.5	40
20	Origin of the green persistent luminescence of Eu-doped SrAl₂O₄from a multiconfigurationalab initiostudy of 4f⁷â†' 4f⁶5d¹transitions. Journal of Materials Chemistry C, 2018, 6, 6637-6640.	5.5	40
21	Mechanical Properties, Electronic Structures, and Potential Applications in Lithium Ion Batteries: A First-Principles Study toward SnSe₂ Nanotubes. Journal of Physical Chemistry C, 2014, 118, 28291-28298.	3.1	37
22	Spectroscopic Distinctions between Two Types of Ce³⁺ Ions in X2-Y₂SiO₅: A Theoretical Investigation. Journal of Physical Chemistry A, 2014, 118, 4988-4994.	2.5	37
23	Methane dehydrogenation on Au/Ni surface alloys â€“ a first-principles study. Catalysis Science and Technology, 2013, 3, 1343.	4.1	36
24	Luminescence and electronic properties of Ba₂MgSi₂O₇:Eu²⁺: a combined experimental and hybrid density functional theory study. Journal of Materials Chemistry C, 2014, 2, 8328-8332.	5.5	35
25	Defect-rich MoS_{2(1â^'x)}Se_{2x} few-layer nanocomposites: a superior anode material for high-performance lithium-ion batteries. Journal of Materials Chemistry A, 2019, 7, 9837-9843.	10.3	35
26	Complete Separation of Carriers in the GeS/SnS Lateral Heterostructure by Uniaxial Tensile Strain. ACS Applied Materials & Interfaces, 2017, 9, 40969-40977.	8.0	34
27	Screening of effective NRR electrocatalysts among the Si-based MSi₂N₄ (M =) Tj ETQq1 1 0.784314 rgBT /O	10.3	34
28	Dipole controlled Schottky barrier in the blue-phosphorene-phase of GeSe based van der Waals heterostructures. Nanoscale Horizons, 2019, 4, 480-489.	8.0	32
29	Combined Experimental and ab Initio Study of Site Preference of Ce³⁺ in SrAl₂O₄. Journal of Physical Chemistry C, 2015, 119, 19326-19332.	3.1	31
30	Density Functional Investigations of Methanol Dehydrogenation on Pdâ^'Zn Surface Alloy. Langmuir, 2010, 26, 10796-10802.	3.5	30
31	Firstâ€Principles Study on Doping of SnSe₂ Monolayers. ChemPhysChem, 2016, 17, 375-379.	2.1	30
32	Molecular Dynamics Simulations of Polymerâ€Bonded Explosives (PBXs): Modeling, Mechanical Properties and their Dependence on Temperatures and Concentrations of Binders. Propellants, Explosives, Pyrotechnics, 2007, 32, 355-359.	1.6	28
33	Nanocrystals of CeVO₄ Doped by Metallic Heteroions. Inorganic Chemistry, 2011, 50, 6189-6194.	4.0	28
34	Water adsorption and dissociation on Ni surface: Effects of steps, dopants, coverage and self-aggregation. Physical Chemistry Chemical Physics, 2013, 15, 17804.	2.8	28
35	Ceâ€“O Covalence in Silicate Oxyapatites and Its Influence on Luminescence Dynamics. Journal of Physical Chemistry C, 2014, 118, 16051-16059.	3.1	28
36	Electronic modulation of carbon-encapsulated NiSe composites via Fe doping for synergistic oxygen evolution. Chemical Communications, 2018, 54, 9075-9078.	4.1	26

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37	Two-dimensional blue-phosphorene-phase germanium monochalcogenide photocatalysts for water splitting: From ultraviolet to visible absorption. Journal of Catalysis, 2019, 373, 67-74.	6.2	26
38	Two-Dimensional Be2C with Octacoordinate Carbons and Negative Poissonâ€™s Ratio. Journal of Physical Chemistry C, 2018, 122, 7959-7967.	3.1	25
39	SnS₂ nanotubes: a promising candidate for the anode material for lithium ion batteries. RSC Advances, 2015, 5, 32505-32510.	3.6	24
40	Edge-, width- and strain-dependent semiconductorâ€“metal transition in SnSe nanoribbons. RSC Advances, 2014, 4, 6933.	3.6	23
41	First-Principles Study on Structural, Electronic, and Spectroscopic Properties of Î³-Ca₂SiO₄:Ce³⁺ Phosphors. Journal of Physical Chemistry A, 2015, 119, 8031-8039.	2.5	23
42	Effects of Si Codoping on Optical Properties of Ce-Doped Ca₆BaP₄O₁₇: Insights from First-Principles Calculations. Journal of Physical Chemistry C, 2016, 120, 3999-4006.	3.1	22
43	Enhancing Electrochemical Hydrogen Evolution Performance of CoMoO₄-Based Microrod Arrays in Neutral Media through Alkaline Activation. ACS Applied Materials & Interfaces, 2020, 12, 30905-30914.	8.0	22
44	First-Principles Study of Water Dissociation on PdZn near Surface Alloys. Journal of Physical Chemistry C, 2011, 115, 18752-18760.	3.1	21
45	Transition Metal-Modified Co₄ Clusters Supported on Graphdiyne as an Effective Nitrogen Reduction Reaction Electrocatalyst. Inorganic Chemistry, 2021, 60, 18251-18259.	4.0	21
46	Thermodynamic Stabilities, Electronic Properties, and Optical Transitions of Intrinsic Defects and Lanthanide Ions (Ce³⁺, Eu²⁺, and Eu³⁺) in Li₂SrSiO₄. Inorganic Chemistry, 2018, 57, 6142-6151.	4.0	20
47	Site occupancy of Ce3+ in Î²-Ca2SiO4: A combined experimental and ab initio study. Optical Materials, 2015, 44, 67-72.	3.6	19
48	Tuning electronic and magnetic properties of SnSe₂ armchair nanoribbons via edge hydrogenation. Journal of Materials Chemistry C, 2014, 2, 10175-10183.	5.5	17
49	Theoretical insights into strong intrinsic piezoelectricity of blue-phosphorus-like group-IV monochalcogenides. Nano Research, 2022, 15, 209-216.	10.4	17
50	Structures, stabilities and piezoelectric properties of Janus gallium oxides and chalcogenides monolayers. Journal of Physics Condensed Matter, 2020, 32, 08LT01.	1.8	16
51	Effects of vacancies on valence stabilities of europium ions in Î²-Ca2SiO4: Eu phosphors. Journal of Luminescence, 2016, 178, 121-127.	3.1	15
52	Density Functional Theory Investigation on Thiophene Hydrodesulfurization Mechanism Catalyzed by ReS₂ (001) Surface. Journal of Physical Chemistry C, 2016, 120, 12012-12021.	3.1	14
53	Density functional study of methanol decomposition on clean and O or OH adsorbed PdZn(111). Journal of Chemical Physics, 2013, 138, 184701.	3.0	13
54	Width- and edge-dependent magnetic properties, electronic structures, and stability of SnSe2 nanoribbons. Physica E: Low-Dimensional Systems and Nanostructures, 2014, 59, 102-106.	2.7	13

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55	Surface Tuning to Promote the Electrocatalysis for Oxygen Evolution Reaction: From Metal-Free to Cobalt-Based Carbon Electrocatalysts. ACS Applied Materials & Interfaces, 2021, 13, 503-513.	8.0	13
56	Effect of Zn on the adsorption of CO on Pd(111). Journal of Chemical Physics, 2010, 133, 214702.	3.0	12
57	Zinc coverage dependent structure of PdZn surface alloy. Physical Chemistry Chemical Physics, 2011, 13, 107-109.	2.8	12
58	Hydrogen Activation on the Promoted and Unpromoted ReS2 (001) Surfaces under the Sulfidation Conditions: A First-Principles Study. Journal of Physical Chemistry C, 2015, 119, 17092-17101.	3.1	12
59	Ga2OSe monolayer: A promising hydrogen evolution photocatalyst screened from two-dimensional gallium chalcogenides and the derived janus. Green Energy and Environment, 2022, 7, 1045-1052.	8.7	12
60	Understanding the emission redshift in Sr 2 Si 5 N 8 :Eu 2+ with increasing Eu doping concentration from density functional calculations. Journal of Luminescence, 2017, 185, 187-191.	3.1	9
61	Chemical doping of the SnSe monolayer: a first-principle calculation. Physical Chemistry Chemical Physics, 2019, 21, 14629-14637.	2.8	9
62	Generating Electric Current Based on the Solvent-Dependent Charging Effects of Defective Boron Nitride Nanosheets. ACS Applied Materials & Interfaces, 2014, 6, 19752-19757.	8.0	8
63	Role of Au in Graphene Growth on a Ni Surface. ACS Catalysis, 2014, 4, 892-902.	11.2	8
64	First-principles investigation on the interlayer doping of SnSe2 bilayer. Journal of Nanoparticle Research, 2018, 20, 1.	1.9	8
65	First-principles study towards the reactivity of the Pd(111) surface with low Zn deposition. Journal of Chemical Physics, 2011, 134, 184702.	3.0	6
66	Crystal field interactions between Ce3+ion and fluoride ligands: a theoretical investigation. Materials Research Express, 2015, 2, 086202.	1.6	6
67	Thermal stabilities, electronic structures and optical properties of intrinsic defects and dopant cerium in Ca4F2Si2O7. Journal of Alloys and Compounds, 2017, 713, 28-37.	5.5	6
68	Density Functional Theory Investigation of Structureâ€“Activity Relationship for Efficient Electrochemical CO₂ Reduction on Defective SnSe₂ Nanosheets. ACS Applied Nano Materials, 2021, 4, 2760-2767.	5.0	6
69	Spin transport properties of 1,4,5,8-naphthalenetetracarboxylic dianhydride based molecular devices. Physical Chemistry Chemical Physics, 2019, 21, 24650-24658.	2.8	4
70	Ultrahigh-stability SnOX (X = S, Se) nanotubes with a built-in electric field as a highly promising platform for sensing NH₃, NO and NO₂: a theoretical investigation. Journal of Materials Chemistry A, 2022, 10, 7948-7959.	10.3	4
71	Site occupation and spectroscopic properties of Ce3+ in Y3Si5N9O from first-principles calculations. Journal of Alloys and Compounds, 2018, 730, 57-61.	5.5	3
72	Geometric, electronic and optical properties of undoped and cerium-doped La5(Si2+B1â˜')(O13â˜'N) solid solutions: A theoretical investigation. Journal of Luminescence, 2017, 192, 1026-1032.	3.1	2

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73	A multi-functional spintronic device based on 1,4,5,8-naphthalenetetracarboxylic diimide. Computational and Theoretical Chemistry, 2021, 1198, 113170.	2.5	2
74	Stabilities, electronic and piezoelectric properties of blue-phosphorene-phase MXs (MÂ=ÂGe, Sn; XÂ=ÂS, Se,) Tj ETQq0 0 0 rgBT /Overloc	6.1	2
75	First-Principles Study on the Stabilities, Electronic and Optical Properties of GexSn1-xSe Alloys. Nanomaterials, 2018, 8, 876.	4.1	1
76	Surficial charge state tuning of tungsten carbide for catalyzing alkaline hydrogen evolution reaction. International Journal of Hydrogen Energy, 2021, , .	7.1	1
77	Do two-dimensional group IV-VI M4X9 monolayers have photocatalytic activity toward overall water splitting? A comprehensive theoretical investigation. Applied Surface Science, 2022, 601, 154225.	6.1	1