

Wei Chen

List of Publications by Year in descending order

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59
papers

6,289
citations

201674

27
h-index

138484

58
g-index

60
all docs

60
docs citations

60
times ranked

7616
citing authors

#	ARTICLE	IF	CITATIONS
1	A new MoCN monolayer containing stable cyano structural units as a high-efficiency catalyst for the hydrogen evolution reaction. <i>Nanoscale</i> , 2022, , .	5.6	1
2	Efficient, biosafe and tissue adhesive hemostatic cotton gauze with controlled balance of hydrophilicity and hydrophobicity. <i>Nature Communications</i> , 2022, 13, 552.	12.8	55
3	Realizing Efficient Catalytic Performance and High Selectivity for Oxygen Reduction Reaction on a 2D Ni ₂ SbTe ₂ Monolayer. <i>Inorganic Chemistry</i> , 2022, 61, 2284-2291.	4.0	7
4	Janus MoPC Monolayer with Superior Electrocatalytic Performance for the Hydrogen Evolution Reaction. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 7836-7844.	8.0	13
5	High HER Catalytic Activity of Bulk GeP ₃ System and Its further Improvement by Introducing Monovacancy: A First-Principles Investigation. <i>Journal of the Electrochemical Society</i> , 2021, 168, 056508.	2.9	1
6	Probing the effect of carbon doping on structures, properties, and stability of magnesium clusters. <i>Theoretical Chemistry Accounts</i> , 2021, 140, 1.	1.4	3
7	Interface Engineering of Heterogeneous CeO ₂ @CoO Nanofibers with Rich Oxygen Vacancies for Enhanced Electrocatalytic Oxygen Evolution Performance. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 46998-47009.	8.0	40
8	Constructing a simple Cone@Chain motif to significantly enhance the first hyperpolarizability of horn-shaped carbon nanocones. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2021, 136, 115021.	2.7	0
9	Increasing Silicon Concentration and Doping Heteroatom to Successfully Realize High HER Catalytic Activity in 2D Metal-Free BSi _n (n = 1-4) Structures: A First-Principles Study. <i>Journal of the Electrochemical Society</i> , 2021, 168, 126527.	2.9	3
10	The crucial role of strained ring in enhancing the hydrogen evolution catalytic activity for the 2D carbon allotropes: a high-throughput first-principles investigation. <i>2D Materials</i> , 2020, 7, 015015.	4.4	22
11	Applying surface strain and coupling with pure or N/B-doped graphene to successfully achieve high HER catalytic activity in 2D layered SnP ₃ -based nanomaterials: a first-principles investigation. <i>Inorganic Chemistry Frontiers</i> , 2020, 7, 647-658.	6.0	22
12	Embedding tetrahedral 3d transition metal TM ₄ clusters into the cavity of two-dimensional graphdiyne to construct highly efficient and nonprecious electrocatalysts for hydrogen evolution reaction. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 3254-3263.	2.8	20
13	Facile Strategy to Extend Stability of Simple Component-Alumina-Supported Palladium Catalysts for Efficient Methane Combustion. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 56095-56107.	8.0	36
14	Theoretical design of a series of 2D TM ₃ N ₄ and TM ₃ N ₄ @graphene (TM = V, Nb and Ta) nanostructures with highly efficient catalytic activity for the hydrogen evolution reaction. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 1773-1783.	2.8	27
15	Theoretical investigation on the structures, electronic and magnetic properties of new 2D/1D composite nanosystems by adsorbing superhalogen MnCl ₃ on the BN monolayer/nanoribbons. <i>Theoretical Chemistry Accounts</i> , 2019, 138, 1.	1.4	3
16	Theoretical investigation on the high HER catalytic activity of 2D layered GeP ₃ nanomaterials and its further enhancement by applying the surface strain or coupling with graphene. <i>Applied Surface Science</i> , 2019, 481, 272-280.	6.1	22
17	Theoretical predication of the high hydrogen evolution catalytic activity for the cubic and tetragonal SnP systems. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 5521-5530.	2.8	12
18	Adsorbing the magnetic superhalogen MnCl ₃ to realize intriguing half-metallic and spin-gapless-semiconducting behavior in zigzag or armchair SiC nanoribbon. <i>RSC Advances</i> , 2018, 8, 13167-13177.	3.6	6

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19	Highly efficient catalytic activity for the hydrogen evolution reaction on pristine and monovacancy defected WP systems: a first-principles investigation. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 13757-13764.	2.8	25
20	Theoretical insights into the effective hydrogen evolution on Cu ₃ P and its evident improvement by surface-doped Ni atoms. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 10407-10417.	2.8	29
21	Host-Guest Interaction Creates Hydrogen-Evolution Electrocatalytic Active Sites in 3d Transition Metal-Intercalated Titanates. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 696-703.	8.0	17
22	Carbon-Encapsulated WO _x Hybrids as Efficient Catalysts for Hydrogen Evolution. <i>Advanced Materials</i> , 2018, 30, e1705979.	21.0	140
23	Solvothermal-assisted evaporation-induced self-assembly of ordered mesoporous alumina with improved performance. <i>Journal of Colloid and Interface Science</i> , 2018, 529, 432-443.	9.4	10
24	A theoretical study on the structures and electronic and magnetic properties of new boron nitride composite nanosystems by depositing superhalogen AlI ₃ on the surface of nanosheets/nanoribbons. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 15424-15433.	2.8	3
25	A Biomimetic Mussel-Inspired Polylysine Hydrogel with Robust Tissue Anchor and Anti-Infection Capacity. <i>Advanced Functional Materials</i> , 2017, 27, 1604894.	14.9	342
26	Covalent surface modification with electron-donating/accepting π -conjugated chains to effectively tune the electronic and magnetic properties of zigzag SiC nanoribbons. <i>Journal of Materials Chemistry C</i> , 2017, 5, 2022-2032.	5.5	7
27	Introducing the triangular BN nanodot or its cooperation with the edge-modification via the electron-donating/withdrawing group to achieve the large first hyperpolarizability in a carbon nanotube system. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 17834-17844.	2.8	13
28	Adsorbing the 3d-transition metal atoms to effectively modulate the electronic and magnetic behaviors of zigzag SiC nanoribbons. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 3694-3705.	2.8	9
29	Highly Active, Nonprecious Electrocatalyst Comprising Borophene Subunits for the Hydrogen Evolution Reaction. <i>Journal of the American Chemical Society</i> , 2017, 139, 12370-12373.	13.7	335
30	Enhancing the Hydrogen Activation Reactivity of Nonprecious Metal Substrates via Confined Catalysis Underneath Graphene. <i>Nano Letters</i> , 2016, 16, 6058-6063.	9.1	101
31	Unique Electronic Structure in a Porous Ga-In Bimetallic Oxide Nano-Photocatalyst with Atomically Thin Pore Walls. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 11442-11446.	13.8	40
32	Metallic Co ₉ S ₈ nanosheets grown on carbon cloth as efficient binder-free electrocatalysts for the hydrogen evolution reaction in neutral media. <i>Journal of Materials Chemistry A</i> , 2016, 4, 6860-6867.	10.3	265
33	Realizing diverse electronic and magnetic properties in hybrid zigzag BNC nanoribbons via hydrogenation. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 1326-1340.	2.8	9
34	Coupling Mo ₂ C with Nitrogen-Rich Nanocarbon Leads to Efficient Hydrogen Evolution Electrocatalytic Sites. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 10752-10757.	13.8	674
35	A first-principles investigation on the effect of the divacancy defect on the band structures of boron nitride (BN) nanoribbons. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2015, 69, 65-74.	2.7	12
36	Molecular charge transfer via π - π interaction: an effective approach to realize the half-metallicity and spin-gapless-semiconductor in zigzag graphene nanoribbon. <i>RSC Advances</i> , 2015, 5, 53003-53011.	3.6	11

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37	High-Index Faceted Ni ₃ S ₂ Nanosheet Arrays as Highly Active and Ultrastable Electrocatalysts for Water Splitting. <i>Journal of the American Chemical Society</i> , 2015, 137, 14023-14026.	13.7	1,622
38	Adsorbing a PVDF polymer via noncovalent interactions to effectively tune the electronic and magnetic properties of zigzag SiC nanoribbons. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 24038-24047.	2.8	11
39	Molecular charge transfer by adsorbing TCNQ/TTF molecules via π - π interaction: a simple and effective strategy to modulate the electronic and magnetic behaviors of zigzag SiC nanoribbons. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 941-950.	2.8	14
40	Constructing a mixed π -conjugated bridge to effectively enhance the nonlinear optical response in the Möbius cyclacene-based systems. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 10933-10942.	2.8	29
41	Dihalogen edge-modification: an effective approach to realize the half-metallicity and metallicity in zigzag silicon carbon nanoribbons. <i>Journal of Materials Chemistry C</i> , 2014, 2, 7836-7850.	5.5	28
42	Introducing the Triangular Defect to Effectively Engineer the Wide Band Gap of Boron Nitride Nanoribbons with Zigzag and Even Armchair Edges. <i>Journal of Physical Chemistry C</i> , 2014, 118, 12880-12889.	3.1	20
43	Doping the Alkali Atom: An Effective Strategy to Improve the Electronic and Nonlinear Optical Properties of the Inorganic Al ₁₂ N ₁₂ Nanocage. <i>Inorganic Chemistry</i> , 2014, 53, 349-358.	4.0	135
44	Constructing (super)alkali-boron-heterofullerene dyads: an effective approach to achieve large first hyperpolarizabilities and high stabilities in M ₃ O@BC ₅₉ (M = Li, Na and K) and K@n-BC ₅₉ (n = 5 and 6). <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 1597-1606.	2.8	64
45	(Super)alkali atoms interacting with the f electron cloud: a novel interaction mode triggers large nonlinear optical response of M@P ₄ and M@C ₃ H ₆ (M=Li, Na, K and Li ₃ O). <i>Journal of Molecular Modeling</i> , 2013, 19, 5601-5610.	1.8	18
46	The donor/acceptor edge-modification: an effective strategy to modulate the electronic and magnetic behaviors of zigzag silicon carbon nanoribbons. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 18039.	2.8	23
47	An Effective Approach to Achieve a Spin Gapless Semiconductor \rightarrow Half \rightarrow Metal \rightarrow Metal Transition in Zigzag Graphene Nanoribbons: Attaching A Floating Induced Dipole Field via π - π Interactions. <i>Advanced Functional Materials</i> , 2013, 23, 1507-1518.	14.9	37
48	Constructing a mixed π -conjugated bridge: a simple and effective approach to realize a large first hyperpolarizability in carbon nanotube-based systems. <i>Journal of Materials Chemistry C</i> , 2013, 1, 3833.	5.5	36
49	The Effects of the Formation of Stone-Wales Defects on the Electronic and Magnetic Properties of Silicon Carbide Nanoribbons: A First-Principles Investigation. <i>ChemPhysChem</i> , 2013, 14, 2841-2852.	2.1	37
50	Successive hydrogenation starting from the edge(s): an effective approach to fine-tune the electronic and magnetic behaviors of SiC nanoribbons. <i>Journal of Materials Chemistry</i> , 2012, 22, 24166.	6.7	32
51	Copper nanoclusters: Synthesis, characterization and properties. <i>Science Bulletin</i> , 2012, 57, 41-47.	1.7	113
52	Alkali metal atom \rightarrow aromatic ring: A novel interaction mode realizes large first hyperpolarizabilities of M@AR (M = Li, Na, and K, AR = pyrrole, indole, thiophene, and benzene). <i>Journal of Computational Chemistry</i> , 2011, 32, 2005-2011.	3.3	71
53	Hydrogenation: A Simple Approach To Realize Semiconductor \rightarrow Half-Metal \rightarrow Metal Transition in Boron Nitride Nanoribbons. <i>Journal of the American Chemical Society</i> , 2010, 132, 1699-1705.	13.7	277
54	The nitrogen edge-doped effect on the static first hyperpolarizability of the supershort single-walled carbon nanotube. <i>Journal of Computational Chemistry</i> , 2009, 30, 1128-1134.	3.3	46

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55	Investigation on nonlinear optical properties of ladder-structure polydiacetylenes derivatives by using the elongation finite-field method. <i>Chemical Physics Letters</i> , 2009, 474, 175-179.	2.6	25
56	Electronic Structure and Reactivity of Boron Nitride Nanoribbons with Stone-Wales Defects. <i>Journal of Chemical Theory and Computation</i> , 2009, 5, 3088-3095.	5.3	127
57	Structures and Considerable Static First Hyperpolarizabilities: New Organic Alkalides (M ⁺ @C ₆ ad ₂)M ⁻ (M, M ⁻ = Li, Na, K; n = 2, 3) with Cation Inside and Anion Outside of the Cage Complexants. <i>Journal of Physical Chemistry B</i> , 2008, 112, 1090-1094.	2.6	109
58	Nonlinear Optical Properties of Alkalides Li+(calix[4]pyrrole)M-(M = Li, Na, and K): Alkali Anion Atomic Number Dependence. <i>Journal of the American Chemical Society</i> , 2006, 128, 1072-1073.	13.7	218
59	The Structure and the Large Nonlinear Optical Properties of Li@Calix[4]pyrrole. <i>Journal of the American Chemical Society</i> , 2005, 127, 10977-10981.	13.7	318