

Wei Chen

List of Publications by Year in descending order

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59
papers

6,289
citations

201385

27
h-index

138251

58
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60
all docs

60
docs citations

60
times ranked

7616
citing authors

#	ARTICLE	IF	CITATIONS
1	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.	6.6	1,622
2	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.	7.2	674
3	A Biomimetic Mussel-Inspired Polylysine Hydrogel with Robust Tissue Anchor and Anti-Infection Capacity. <i>Advanced Functional Materials</i> , 2017, 27, 1604894.	7.8	342
4	Highly Active, Nonprecious Electrocatalyst Comprising Borophene Subunits for the Hydrogen Evolution Reaction. <i>Journal of the American Chemical Society</i> , 2017, 139, 12370-12373.	6.6	335
5	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.	6.6	318
6	Hydrogenation: A Simple Approach To Realize Semiconductor ^{1/2} Half-Metal ^{1/2} Metal Transition in Boron Nitride Nanoribbons. <i>Journal of the American Chemical Society</i> , 2010, 132, 1699-1705.	6.6	277
7	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.	5.2	265
8	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.	6.6	218
9	Carbon-Encapsulated WO _x Hybrids as Efficient Catalysts for Hydrogen Evolution. <i>Advanced Materials</i> , 2018, 30, e1705979.	11.1	140
10	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.	1.9	135
11	Electronic Structure and Reactivity of Boron Nitride Nanoribbons with Stone-Wales Defects. <i>Journal of Chemical Theory and Computation</i> , 2009, 5, 3088-3095.	2.3	127
12	Copper nanoclusters: Synthesis, characterization and properties. <i>Science Bulletin</i> , 2012, 57, 41-47.	1.7	113
13	Structures and Considerable Static First Hyperpolarizabilities: New Organic Alkalides (M ⁺ @n ⁺ adz) ⁻ (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.		109
14	Enhancing the Hydrogen Activation Reactivity of Nonprecious Metal Substrates via Confined Catalysis Underneath Graphene. <i>Nano Letters</i> , 2016, 16, 6058-6063.	4.5	101
15	Alkali metal atom-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.	1.5	71
16	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.	1.3	64
17	Efficient, biosafe and tissue adhesive hemostatic cotton gauze with controlled balance of hydrophilicity and hydrophobicity. <i>Nature Communications</i> , 2022, 13, 552.	5.8	55
18	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.	1.5	46

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19	Unique Electronic Structure in a Porous GaIn Bimetallic Oxide NanoPhotocatalyst with Atomically Thin Pore Walls. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 11442-11446.	7.2	40
20	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.	4.0	40
21	An Effective Approach to Achieve a Spin Gapless SemiconductorMetalMetal Transition in Zigzag Graphene Nanoribbons: Attaching A Floating Induced Dipole Field via π - π Interactions. <i>Advanced Functional Materials</i> , 2013, 23, 1507-1518.	7.8	37
22	The Effects of the Formation of StoneWales Defects on the Electronic and Magnetic Properties of Silicon Carbide Nanoribbons: A FirstPrinciples Investigation. <i>ChemPhysChem</i> , 2013, 14, 2841-2852.	1.0	37
23	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.	2.7	36
24	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.	4.0	36
25	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
26	Constructing a mixed π -conjugated bridge to effectively enhance the nonlinear optical response in the MAmbius cyclacene-based systems. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 10933-10942.	1.3	29
27	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.	1.3	29
28	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.	2.7	28
29	Theoretical design of a series of 2D TM ₃ C ₃ N ₄ and TM ₃ C 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.	1.3	27
30	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.	1.2	25
31	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.	1.3	25
32	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.	1.3	23
33	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.	3.1	22
34	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.	2.0	22
35	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.	3.0	22
36	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.	1.5	20

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37	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.	1.3	20
38	(Super)alkali atoms interacting with the f electron cloud: a novel interaction mode triggers large nonlinear optical response of $M@P4$ and $M@C3H6$ ($M=Li, Na, K$ and $Li3O$). <i>Journal of Molecular Modeling</i> , 2013, 19, 5601-5610.	0.8	18
39	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.	4.0	17
40	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.	1.3	14
41	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.	1.3	13
42	Janus MoPC Monolayer with Superior Electrocatalytic Performance for the Hydrogen Evolution Reaction. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 7836-7844.	4.0	13
43	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.	1.3	12
44	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.	1.3	12
45	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.	1.7	11
46	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.	1.3	11
47	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.	5.0	10
48	Realizing diverse electronic and magnetic properties in hybrid zigzag BNC nanoribbons via hydrogenation. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 1326-1340.	1.3	9
49	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.	1.3	9
50	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.	2.7	7
51	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.	1.9	7
52	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.	1.7	6
53	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.	1.3	3
54	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.	0.5	3

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55	Probing the effect of carbon doping on structures, properties, and stability of magnesium clusters. Theoretical Chemistry Accounts, 2021, 140, 1.	0.5	3
56	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. Journal of the Electrochemical Society, 2021, 168, 126527.	1.3	3
57	High HER Catalytic Activity of Bulk GeP ₃ System and Its further Improvement by Introducing Monovacancy: A First-Principles Investigation. Journal of the Electrochemical Society, 2021, 168, 056508.	1.3	1
58	A new MoCN monolayer containing stable cyano structural units as a high-efficiency catalyst for the hydrogen evolution reaction. Nanoscale, 2022, , .	2.8	1
59	Constructing a simple Cone-Chain motif to significantly enhance the first hyperpolarizability of horn-shaped carbon nanocones. Physica E: Low-Dimensional Systems and Nanostructures, 2021, 136, 115021.	1.3	0