Wei Chen

List of Publications by Year
in descending order

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	High-Index Faceted Ni₃S₂ Nanosheet Arrays as Highly Active and Ultrastable Electrocatalysts for Water Splitting. Journal of the American Chemical Society, 2015, 137, 14023-14026.	13.7	1,622
2	Coupling Mo₂C with Nitrogenâ€Rich Nanocarbon Leads to Efficient Hydrogenâ€Evolution Electrocatalytic Sites. Angewandte Chemie - International Edition, 2015, 54, 10752-10757.	13.8	674
3	A Biomimetic Musselâ€Inspired Îµâ€Polyâ€<scp>l</scp>â€lysine Hydrogel with Robust Tissueâ€Anchor and Antiâ€Infection Capacity. Advanced Functional Materials, 2017, 27, 1604894.	14.9	342
4	Highly Active, Nonprecious Electrocatalyst Comprising Borophene Subunits for the Hydrogen Evolution Reaction. Journal of the American Chemical Society, 2017, 139, 12370-12373.	13.7	335
5	The Structure and the Large Nonlinear Optical Properties of Li@Calix[4]pyrrole. Journal of the American Chemical Society, 2005, 127, 10977-10981.	13.7	318
6	Hydrogenation: A Simple Approach To Realize Semiconductorâˆ'Half-Metalâˆ'Metal Transition in Boron Nitride Nanoribbons. Journal of the American Chemical Society, 2010, 132, 1699-1705.	13.7	277
7	Metallic Co₉S₈ nanosheets grown on carbon cloth as efficient binder-free electrocatalysts for the hydrogen evolution reaction in neutral media. Journal of Materials Chemistry A, 2016, 4, 6860-6867.	10.3	265
8	Nonlinear Optical Properties of Alkalides Li+(calix[4]pyrrole)M-(M = Li, Na, and K):Â Alkali Anion Atomic Number Dependence. Journal of the American Chemical Society, 2006, 128, 1072-1073.	13.7	218
9	Carbonâ€Encapsulated WO<i>_x</i> Hybrids as Efficient Catalysts for Hydrogen Evolution. Advanced Materials, 2018, 30, e1705979.	21.0	140
10	Doping the Alkali Atom: An Effective Strategy to Improve the Electronic and Nonlinear Optical Properties of the Inorganic Al₁₂N₁₂ Nanocage. Inorganic Chemistry, 2014, 53, 349-358.	4.0	135
11	Electronic Structure and Reactivity of Boron Nitride Nanoribbons with Stone-Wales Defects. Journal of Chemical Theory and Computation, 2009, 5, 3088-3095.	5.3	127
12	Copper nanoclusters: Synthesis, characterization and properties. Science Bulletin, 2012, 57, 41-47.	1.7	113
13	Structures and Considerable Static First Hyperpolarizabilities:â€‰ New Organic Alkalides (M⁺@<i>n</i>⁶adz)Mâ€˜⁻ (M, Mâ€˜ = Li, Na, K; <i>n</i> = 2, 3) with Cation Inside and Anion Outside of the Cage Complexants. Journal of Physical Chemistry B, 2008, 112, 1090-1094.	2.6	109
14	Enhancing the Hydrogen Activation Reactivity of Nonprecious Metal Substrates via Confined Catalysis Underneath Graphene. Nano Letters, 2016, 16, 6058-6063.	9.1	101
15	Alkali metal atomâ€aromatic ring: A novel interaction mode realizes large first hyperpolarizabilities of M@AR (M = Li, Na, and K, AR = pyrrole, indole, thiophene, and benzene). Journal of Computational Chemistry, 2011, 32, 2005-2011.	3.3	71
16	Constructing (super)alkaliâ€“boron-heterofullerene dyads: an effective approach to achieve large first hyperpolarizabilities and high stabilities in M₃Oâ€“BC₅₉(M = Li, Na and K) and K@n-BC₅₉(n = 5 and 6). Physical Chemistry Chemical Physics, 2014, 16, 1597-1606.	2.8	64
17	Efficient, biosafe and tissue adhesive hemostatic cotton gauze with controlled balance of hydrophilicity and hydrophobicity. Nature Communications, 2022, 13, 552.	12.8	55
18	The nitrogen edgeâ€doped effect on the static first hyperpolarizability of the supershort singleâ€walled carbon nanotube. Journal of Computational Chemistry, 2009, 30, 1128-1134.	3.3	46

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19	Unique Electronic Structure in a Porous Gaâ€In Bimetallic Oxide Nanoâ€Photocatalyst with Atomically Thin Pore Walls. Angewandte Chemie - International Edition, 2016, 55, 11442-11446.	13.8	40
20	Interface Engineering of Heterogeneous CeO₂â€“CoO Nanofibers with Rich Oxygen Vacancies for Enhanced Electrocatalytic Oxygen Evolution Performance. ACS Applied Materials & Interfaces, 2021, 13, 46998-47009.	8.0	40
21	An Effective Approach to Achieve a Spin Gapless Semiconductorâ€“Halfâ€Metalâ€“Metal Transition in Zigzag Graphene Nanoribbons: Attaching A Floating Induced Dipole Field via <i>Ï€</i>â€“<i>Ï€</i> Interactions. Advanced Functional Materials, 2013, 23, 1507-1518.	14.9	37
22	The Effects of the Formation of Stoneâ€“Wales Defects on the Electronic and Magnetic Properties of Silicon Carbide Nanoribbons: A Firstâ€Principles Investigation. ChemPhysChem, 2013, 14, 2841-2852.	2.1	37
23	Constructing a mixed Ï€-conjugated bridge: a simple and effective approach to realize a large first hyperpolarizability in carbon nanotube-based systems. Journal of Materials Chemistry C, 2013, 1, 3833.	5.5	36
24	Facile Strategy to Extend Stability of Simple Component-Alumina-Supported Palladium Catalysts for Efficient Methane Combustion. ACS Applied Materials & Interfaces, 2020, 12, 56095-56107.	8.0	36
25	Successive hydrogenation starting from the edge(s): an effective approach to fine-tune the electronic and magnetic behaviors of SiC nanoribbons. Journal of Materials Chemistry, 2012, 22, 24166.	6.7	32
26	Constructing a mixed Ï€-conjugated bridge to effectively enhance the nonlinear optical response in the MÃ¶bius cyclacene-based systems. Physical Chemistry Chemical Physics, 2014, 16, 10933-10942.	2.8	29
27	Theoretical insights into the effective hydrogen evolution on Cu3P and its evident improvement by surface-doped Ni atoms. Physical Chemistry Chemical Physics, 2018, 20, 10407-10417.	2.8	29
28	Dihalogen edge-modification: an effective approach to realize the half-metallicity and metallicity in zigzag silicon carbon nanoribbons. Journal of Materials Chemistry C, 2014, 2, 7836-7850.	5.5	28
29	Theoretical design of a series of 2D TMâ€“C₃N₄ and TMâ€“C₃N₄@graphene (TM = V, Nb and Ta) nanostructures with highly efficient catalytic activity for the hydrogen evolution reaction. Physical Chemistry Chemical Physics, 2019, 21, 1773-1783.	2.8	27
30	Investigation on nonlinear optical properties of ladder-structure polydiacetylenes derivatives by using the elongation finite-field method. Chemical Physics Letters, 2009, 474, 175-179.	2.6	25
31	Highly efficient catalytic activity for the hydrogen evolution reaction on pristine and monovacancy defected WP systems: a first-principles investigation. Physical Chemistry Chemical Physics, 2018, 20, 13757-13764.	2.8	25
32	The donor/acceptor edge-modification: an effective strategy to modulate the electronic and magnetic behaviors of zigzag silicon carbon nanoribbons. Physical Chemistry Chemical Physics, 2013, 15, 18039.	2.8	23
33	Theoretical investigation on the high HER catalytic activity of 2D layered GeP3 nanomaterials and its further enhancement by applying the surface strain or coupling with graphene. Applied Surface Science, 2019, 481, 272-280.	6.1	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. 2D Materials, 2020, 7, 015015.	4.4	22
35	Applying surface strain and coupling with pure or N/B-doped graphene to successfully achieve high HER catalytic activity in 2D layered SnP₃-based nanomaterials: a first-principles investigation. Inorganic Chemistry Frontiers, 2020, 7, 647-658.	6.0	22
36	Introducing the Triangular Defect to Effectively Engineer the Wide Band Gap of Boron Nitride Nanoribbons with Zigzag and Even Armchair Edges. Journal of Physical Chemistry C, 2014, 118, 12880-12889.	3.1	20

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37	Embedding tetrahedral 3d transition metal TM₄ clusters into the cavity of two-dimensional graphdiyne to construct highly efficient and nonprecious electrocatalysts for hydrogen evolution reaction. Physical Chemistry Chemical Physics, 2020, 22, 3254-3263.	2.8	20
38	(Super)alkali atoms interacting with the Ïƒ electron cloud: a novel interaction mode triggers large nonlinear optical response of M@P4 and M@C3H6 (M=Li, Na, K and Li3O). Journal of Molecular Modeling, 2013, 19, 5601-5610.	1.8	18
39	Hostâ€"Guest Interaction Creates Hydrogen-Evolution Electrocatalytic Active Sites in 3d Transition Metal-Intercalated Titanates. ACS Applied Materials & Interfaces, 2018, 10, 696-703.	8.0	17
40	Molecular charge transfer by adsorbing TCNQ/TTF molecules via Ï€â€"Ï€ interaction: a simple and effective strategy to modulate the electronic and magnetic behaviors of zigzag SiC nanoribbons. Physical Chemistry Chemical Physics, 2015, 17, 941-950.	2.8	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. Physical Chemistry Chemical Physics, 2017, 19, 17834-17844.	2.8	13
42	Janus MoPC Monolayer with Superior Electrocatalytic Performance for the Hydrogen Evolution Reaction. ACS Applied Materials & Interfaces, 2022, 14, 7836-7844.	8.0	13
43	A first-principles investigation on the effect of the divacancy defect on the band structures of boron nitride (BN) nanoribbons. Physica E: Low-Dimensional Systems and Nanostructures, 2015, 69, 65-74.	2.7	12
44	Theoretical predication of the high hydrogen evolution catalytic activity for the cubic and tetragonal SnP systems. Physical Chemistry Chemical Physics, 2019, 21, 5521-5530.	2.8	12
45	Molecular charge transfer via Ï€â€"Ï€ interaction: an effective approach to realize the half-metallicity and spin-gapless-semiconductor in zigzag graphene nanoribbon. RSC Advances, 2015, 5, 53003-53011.	3.6	11
46	Adsorbing a PVDF polymer via noncovalent interactions to effectively tune the electronic and magnetic properties of zigzag SiC nanoribbons. Physical Chemistry Chemical Physics, 2015, 17, 24038-24047.	2.8	11
47	Solvothermal-assisted evaporation-induced self-assembly of ordered mesoporous alumina with improved performance. Journal of Colloid and Interface Science, 2018, 529, 432-443.	9.4	10
48	Realizing diverse electronic and magnetic properties in hybrid zigzag BNC nanoribbons via hydrogenation. Physical Chemistry Chemical Physics, 2016, 18, 1326-1340.	2.8	9
49	Adsorbing the 3d-transition metal atoms to effectively modulate the electronic and magnetic behaviors of zigzag SiC nanoribbons. Physical Chemistry Chemical Physics, 2017, 19, 3694-3705.	2.8	9
50	Covalent surface modification with electron-donating/accepting Ï€-conjugated chains to effectively tune the electronic and magnetic properties of zigzag SiC nanoribbons. Journal of Materials Chemistry C, 2017, 5, 2022-2032.	5.5	7
51	Realizing Efficient Catalytic Performance and High Selectivity for Oxygen Reduction Reaction on a 2D Ni₂SbTe₂ Monolayer. Inorganic Chemistry, 2022, 61, 2284-2291.	4.0	7
52	Adsorbing the magnetic superhalogen MnCl₃ to realize intriguing half-metallic and spin-gapless-semiconducting behavior in zigzag or armchair SiC nanoribbon. RSC Advances, 2018, 8, 13167-13177.	3.6	6
53	A theoretical study on the structures and electronic and magnetic properties of new boron nitride composite nanosystems by depositing superhalogen Al13on the surface of nanosheets/nanoribbons. Physical Chemistry Chemical Physics, 2018, 20, 15424-15433.	2.8	3
54	Theoretical investigation on the structures, electronic and magnetic properties of new 2D/1D composite nanosystems by adsorbing superhalogen MnCl3 on the BN monolayer/nanoribbons. Theoretical Chemistry Accounts, 2019, 138, 1.	1.4	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.	1.4	3
56	Increasing Silicon Concentration and Doping Heteroatom to Successfully Realize High HER Catalytic Activity in 2D Metal-Free BSi_n (n = 1â€“4) Structures: A First-Principles Study. Journal of the Electrochemical Society, 2021, 168, 126527.	2.9	3
57	High HER Catalytic Activity of Bulk GeP3 System and Its further Improvement by Introducing Monovacancy: A First-Principles Investigation. Journal of the Electrochemical Society, 2021, 168, 056508.	2.9	1
58	A new MoCN monolayer containing stable cyano structural units as a high-efficiency catalyst for the hydrogen evolution reaction. Nanoscale, 2022, , .	5.6	1
59	Constructing a simple Coneâ€“Chain motif to significantly enhance the first hyperpolarizability of horn-shaped carbon nanocones. Physica E: Low-Dimensional Systems and Nanostructures, 2021, 136, 115021.	2.7	0