Guo-Liang Chai

List of Publications by Year
in descending order

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71 papers	4,589 citations	136950 32 h-index	102487 66 g-index
71 all docs	71 docs citations	71 times ranked	5584 citing authors

#	Article	IF	Citations
1	Active sites engineering leads to exceptional ORR and OER bifunctionality in P,N Co-doped graphene frameworks. Energy and Environmental Science, 2017, 10, 1186-1195.	30.8	431
2	Alleviation of Dendrite Formation on Zinc Anodes via Electrolyte Additives. ACS Energy Letters, 2021, 6, 395-403.	17.4	340
3	Highly Selective CO₂ Electroreduction to CH₄ by Inâ€...Situ Generated Cu₂O Singleâ€Type Sites on a Conductive MOF: Stabilizing Key Intermediates with Hydrogen Bonding. Angewandte Chemie - International Edition, 2020, 59, 23641-23648.	13.8	335
4	Active Sites and Mechanisms for Oxygen Reduction Reaction on Nitrogen-Doped Carbon Alloy Catalysts: Stoneâ€“Wales Defect and Curvature Effect. Journal of the American Chemical Society, 2014, 136, 13629-13640.	13.7	273
5	Znâ€MOFâ€74 Derived Nâ€Doped Mesoporous Carbon as pHâ€Universal Electrocatalyst for Oxygen Reduction Reaction. Advanced Functional Materials, 2017, 27, 1606190.	14.9	231
6	Conductive Twoâ€Dimensional Phthalocyanineâ€based Metalâ€“Organic Framework Nanosheets for Efficient Electroreduction of CO₂. Angewandte Chemie - International Edition, 2021, 60, 17108-17114.	13.8	213
7	Highly effective sites and selectivity of nitrogen-doped graphene/CNT catalysts for CO₂electrochemical reduction. Chemical Science, 2016, 7, 1268-1275.	7.4	199
8	Integration of Strong Electron Transporter Tetrathiafulvalene into Metalloporphyrin-Based Covalent Organic Framework for Highly Efficient Electroreduction of CO₂. ACS Energy Letters, 2020, 5, 1005-1012.	17.4	180
9	Palladium alloys used as electrocatalysts for the oxygen reduction reaction. Energy and Environmental Science, 2021, 14, 2639-2669.	30.8	158
10	Cobalt single-atoms anchored on porphyrinic triazine-based frameworks as bifunctional electrocatalysts for oxygen reduction and hydrogen evolution reactions. Journal of Materials Chemistry A, 2019, 7, 1252-1259.	10.3	152
11	Adsorption and migration of alkali metals (Li, Na, and K) on pristine and defective graphene surfaces. Nanoscale, 2019, 11, 5274-5284.	5.6	149
12	Unraveling the Reactivity and Selectivity of Atomically Isolated Metalâ€“Nitrogen Sites Anchored on Porphyrinic Triazine Frameworks for Electroreduction of CO ₂. CCS Chemistry, 2019, 1, 384-395.	7.8	125
13	Mesoporous Carbon Hollow Spheres as Efficient Electrocatalysts for Oxygen Reduction to Hydrogen Peroxide in Neutral Electrolytes. ACS Catalysis, 2020, 10, 7434-7442.	11.2	123
14	Copper-surface-mediated synthesis of acetylenic carbon-rich nanofibers for active metal-free photocathodes. Nature Communications, 2018, 9, 1140.	12.8	115
15	Electrochemical oxygen reduction for H₂O₂ production: catalysts, pH effects and mechanisms. Journal of Materials Chemistry A, 2020, 8, 24996-25016.	10.3	94
16	Two-Electron Oxygen Reduction on Carbon Materials Catalysts: Mechanisms and Active Sites. Journal of Physical Chemistry C, 2017, 121, 14524-14533.	3.1	89
17	Facet Engineering to Regulate Surface States of Topological Crystalline Insulator Bismuth Rhombic Dodecahedrons for Highly Energy Efficient Electrochemical CO₂ Reduction. Advanced Materials, 2021, 33, e2008373.	21.0	84
18	Robust 3D macroporous structures with SnS nanoparticles decorating nitrogen-doped carbon nanosheet networks for high performance sodium-ion batteries. Journal of Materials Chemistry A, 2017, 5, 23460-23470.	10.3	79

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19	Highly Efficient Oxygen Reduction Catalysts by Rational Synthesis of Nanoconfined Maghemite in a Nitrogen-Doped Graphene Framework. ACS Catalysis, 2016, 6, 3558-3568.	11.2	74
20	Thermoelectric properties of two-dimensional selenene and tellurene from group-VI elements. Physical Chemistry Chemical Physics, 2018, 20, 24250-24256.	2.8	73
21	Highly Selective CO₂ Electroreduction to CH₄ by Inâ€…Situ Generated Cu₂O Singleâ€Type Sites on a Conductive MOF: Stabilizing Key Intermediates with Hydrogen Bonding. Angewandte Chemie, 2020, 132, 23849-23856.	2.0	70
22	Weakening Intermediate Bindings on CuPd/Pd Core/shell Nanoparticles to Achieve Ptâ€Like Bifunctional Activity for Hydrogen Evolution and Oxygen Reduction Reactions. Advanced Functional Materials, 2021, 31, 2100883.	14.9	68
23	Defected vanadium bronzes as superb cathodes in aqueous zinc-ion batteries. Nanoscale, 2020, 12, 20638-20648.	5.6	61
24	Possible Oxygen Reduction Reactions for Graphene Edges from First Principles. Journal of Physical Chemistry C, 2014, 118, 17616-17625.	3.1	56
25	Highâ€Performance Metalâ€Free Nanosheets Array Electrocatalyst for Oxygen Evolution Reaction in Acid. Advanced Functional Materials, 2020, 30, 2003000.	14.9	55
26	Fe Vacancies Induced Surface FeO₆ in Nanoarchitectures of Nâ€Doped Graphene Protected Î²â€FeOOH: Effective Active Sites for pHâ€Universal Electrocatalytic Oxygen Reduction. Advanced Functional Materials, 2018, 28, 1803330.	14.9	51
27	A universal pH range and a highly efficient Mo₂C-based electrocatalyst for the hydrogen evolution reaction. Journal of Materials Chemistry A, 2020, 8, 19879-19886.	10.3	50
28	Conductive Twoâ€Dimensional Phthalocyanineâ€based Metalâ€“Organic Framework Nanosheets for Efficient Electroreduction of CO₂. Angewandte Chemie, 2021, 133, 17245-17251.	2.0	48
29	Facile Fabrication of Robust Hydrogen Evolution Electrodes under High Current Densities via Pt@Cu Interactions. Advanced Functional Materials, 2021, 31, 2105579.	14.9	45
30	Indirect Four-Electron Oxygen Reduction Reaction on Carbon Materials Catalysts in Acidic Solutions. ACS Catalysis, 2017, 7, 7908-7916.	11.2	42
31	Atom-Resolved Analysis of Birefringence of Nonlinear Optical Crystals by Bader Charge Integration. Journal of Physical Chemistry C, 2019, 123, 31183-31189.	3.1	37
32	Recent progress of Bi-based electrocatalysts for electrocatalytic CO₂ reduction. Nanoscale, 2022, 14, 7957-7973.	5.6	35
33	Topological phase transitions driven by strain in monolayer tellurium. Physical Review B, 2018, 98, .	3.2	34
34	Template-free synthesis of graphene-like carbons as efficient carbocatalysts for selective oxidation of alkanes. Green Chemistry, 2020, 22, 1291-1300.	9.0	33
35	PbGa₂GeS₆: An Infrared Nonlinear Optical Material Synthesized by an Intermediate-Temperature Self-Fluxing Method. Crystal Growth and Design, 2018, 18, 1162-1167.	3.0	30
36	Planar tetra-coordinate carbon resulting in enhanced third-order nonlinear optical response of metal-terminated graphene nanoribbons. Journal of Materials Chemistry, 2012, 22, 11303.	6.7	24

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37	Reversible two-channel mechanochromic luminescence for a pyridinium-based white-light emitter with room-temperature fluorescenceâ€“phosphorescence dual emission. Physical Chemistry Chemical Physics, 2019, 21, 14728-14733.	2.8	24
38	Enhancing Hydrogen Evolution Electrocatalytic Performance in Neutral Media via Nitrogen and Iron Phosphide Interactions. Small Science, 2021, 1, 2100032.	9.9	24
39	Progress, Advantages, and Challenges of Topological Material Catalysts. Small Science, 2022, 2, .	9.9	23
40	Theoretical Evaluation on Terahertz Source Generators from Ternary Metal Chalcogenides of PbM₆Te₁₀ (M = Ga, In). Journal of Physical Chemistry C, 2018, 122, 4557-4564.	3.1	21
41	Effective Ensemble of Pt Single Atoms and Clusters over the (Ni,Co)(OH)₂ Substrate Catalyzes Highly Selective, Efficient, and Stable Hydrogenation Reactions. ACS Catalysis, 2022, 12, 8104-8115.	11.2	20
42	Spaceâ€Confined Oneâ€Step Growth of 2D MoO₂/MoS₂ Vertical Heterostructures for Superior Hydrogen Evolution in Alkaline Electrolytes. Small, 2022, 18, .	10.0	20
43	First-principles study of CN carbon nitride nanotubes. Nanotechnology, 2010, 21, 195702.	2.6	19
44	In-situ electrochemical modification of pre-intercalated vanadium bronze cathodes for aqueous zinc-ion batteries. Science China Materials, 2022, 65, 1165-1175.	6.3	18
45	Nonlinear optical properties of carbon nitride nanotubes. Physical Chemistry Chemical Physics, 2012, 14, 835-839.	2.8	17
46	Ba₆In₆Zn₄Se₁₉: a high performance infrared nonlinear optical crystal with [InSe₃]^{3â^’} trigonal planar functional motifs. Journal of Materials Chemistry C, 2020, 8, 7947-7955.	5.5	15
47	First-principles study of ZnO cluster-decorated carbon nanotubes. Nanotechnology, 2011, 22, 445705.	2.6	13
48	Effect of Axial Coordination of Iron Porphyrin on Their Nanostructures and Photocatalytic Performance. Crystal Growth and Design, 2019, 19, 3279-3287.	3.0	13
49	Interfacial effects in CuO/Co₃O₄ heterostructures enhance benzene catalytic oxidation performance. Environmental Science: Nano, 2022, 9, 781-796.	4.3	13
50	LaSiP₃ and LaSi₂P₆: Two Excellent Rareâ€Earth Pnictides with Strong SHG Responses as Midâ€and Farâ€Infrared Nonlinear Optical Crystals. Advanced Optical Materials, 2021, 9, 2002176.	7.3	9
51	Ba10In6Zn7S26-nZnS: An Inorganic Composite System with Interface Phase-Matching Tuned for High-Performance Infrared Nonlinear Optical Materials. Inorganic Chemistry, 2019, 58, 3990-3999.	4.0	8
52	Exceptional thermoelectric performance of a â€œstar-likeâ€•SnSe nanotube with ultra-low thermal conductivity and a high power factor. Physical Chemistry Chemical Physics, 2017, 19, 23247-23253.	2.8	7
53	Pyrimidine-assisted synthesis of S, N-codoped few-layered graphene for highly efficient hydrogen peroxide production in acid. Chem Catalysis, 2022, 2, 1450-1466.	6.1	7
54	Regulable pyrrolic-N-doped carbon materials as an efficient electrocatalyst for selective O₂ reduction to H₂O₂. New Journal of Chemistry, 2022, 46, 14510-14516.	2.8	7

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55	Structure dependent electronic and magnetic properties of graphitic GaNâ€“ZnO nanoribbons. Journal of Materials Chemistry, 2012, 22, 7708.	6.7	6
56	Theoretical Evaluation of Terahertz Sources Generated From SnGa₄Q₇ (Q=S,) Tj ETQq0 0 0 rgBT /Overlock 10	2.1	6
57	Graphitic GaNâ€“ZnO and corresponding nanotubes. Journal of Materials Chemistry, 2011, 21, 17071.	6.7	5
58	Solvent-mediated engineering of copper-metalated acetylenic polymer scaffolds with enhanced photoelectrochemical performance. Journal of Materials Chemistry A, 2021, 9, 9729-9734.	10.3	5
59	Ba₄GeSb₂Se₁₁: An Infrared Nonlinear Optical Crystal with a V-Shaped Se₃^{2â€“} Group Possessing a Large Contribution to the SHG Response. Inorganic Chemistry, 2021, 60, 15593-15598.	4.0	5
60	Density functional theory study of CH4 dissociation and C C coupling on W-terminated WC(0001) surface. Applied Surface Science, 2022, 591, 153128.	6.1	5
61	Effect of cage size on the thirdâ€order optical properties of endohedral metallofullerenes Sc₃N@C_{2n} (2n = 68, 70, 78, and 80): A theoretical study. International Journal of Quantum Chemistry, 2012, 112, 759-769.	2.0	4
62	Nitrogen-Mediated Graphene Oxide Enables Highly Efficient Proton Transfer. Scientific Reports, 2017, 7, 5213.	3.3	4
63	Ba10In6Zn7S10Se16 and Ba10In6Zn7Se26: Two new infrared nonlinear optical materials with T2 super tetrahedron. Journal of Alloys and Compounds, 2019, 797, 356-362.	5.5	4
64	THEORETICAL STUDY OF ONE- AND TWO-PHOTON ABSORPTION PROPERTIES FOR THREE SERIES OF DIPHENYLAMINE AND DIFLUORENYLAMINE SUBSTITUTED CONJUGATED COMPOUNDS. Journal of Theoretical and Computational Chemistry, 2012, 11, 1033-1056.	1.8	3
65	BaCdGeSe4: Synthesis, structure and nonlinear optical properties. Journal of Solid State Chemistry, 2021, 302, 122352.	2.9	3
66	Reply to the â€˜Comment on â€œPlanar tetra-coordinate carbon resulting in enhanced third-order nonlinear optical response of metal-terminated graphene nanoribbonsâ€â€™ by P. Karamanis, N. Otero and C. Pouchan, J. Mater. Chem. C, 2013, DOI: 10.1039/C3TC00922J. Journal of Materials Chemistry C, 2013, 1, 3041.	5.5	2
67	Theoretical study on the oneâ€, twoâ€, and threeâ€photon absorption properties of exohedral functionalized derivative of Sc₃N@C₈₀. International Journal of Quantum Chemistry, 2012, 112, 1198-1208.	2.0	1
68	Acidic Electrolytes: Highâ€Performance Metalâ€Free Nanosheets Array Electrocatalyst for Oxygen Evolution Reaction in Acid (Adv. Funct. Mater. 31/2020). Advanced Functional Materials, 2020, 30, 2070210.	14.9	1
69	Frontispiece: Highly Selective CO₂ Electroreduction to CH₄ by Inâ€…Situ Generated Cu₂O Singleâ€Type Sites on a Conductive MOF: Stabilizing Key Intermediates with Hydrogen Bonding. Angewandte Chemie - International Edition, 2020, 59, .	13.8	1
70	Frontispiz: Highly Selective CO₂ Electroreduction to CH₄ by Inâ€…Situ Generated Cu₂O Singleâ€Type Sites on a Conductive MOF: Stabilizing Key Intermediates with Hydrogen Bonding. Angewandte Chemie, 2020, 132, .	2.0	0
71	Rhodium-based bidentate phosphorus ligand catalyst for direct synthesis of ethylene glycol. Molecular Catalysis, 2022, 524, 112288.	2.0	0