Qiang Chen

List of Publications by Year
in descending order

68 papers	3,499 citations	172457 29 h-index	138484 58 g-index
71 all docs	71 docs citations	71 times ranked	1645 citing authors

#	Article	IF	Citations
1	Observation of an all-boron fullerene. Nature Chemistry, 2014, 6, 727-731.	13.6	724
2	The B₃₅ Cluster with a Double-Hexagonal Vacancy: A New and More Flexible Structural Motif for Borophene. Journal of the American Chemical Society, 2014, 136, 12257-12260.	13.7	298
3	Experimental and Theoretical Evidence of an Axially Chiral Borospherene. ACS Nano, 2015, 9, 754-760.	14.6	228
4	Observation and characterization of the smallest borospherene, B28â^' and B28. Journal of Chemical Physics, 2016, 144, 064307.	3.0	141
5	Deciphering the mystery of hexagon holes in an all-boron graphene Î±-sheet. Physical Chemistry Chemical Physics, 2011, 13, 11575.	2.8	136
6	Endohedral and Exohedral Metalloborospherenes: M@B₄₀ (M=Ca, Sr) and M&B₄₀ (M=Be, Mg). Angewandte Chemie - International Edition, 2015, 54, 941-945.	13.8	130
7	Cageâ€Like B₄₁⁺ and B₄₂²⁺: New Chiral Members of the Borospherene Family. Angewandte Chemie - International Edition, 2015, 54, 8160-8164.	13.8	105
8	Quasi-planar aromatic B₃₆and B₃₆^{â^'}clusters: all-boron analogues of coronene. Physical Chemistry Chemical Physics, 2014, 16, 18282.	2.8	91
9	Competition between quasi-planar and cage-like structures in the B₂₉^{â^'}cluster: photoelectron spectroscopy and ab initio calculations. Physical Chemistry Chemical Physics, 2016, 18, 29147-29155.	2.8	85
10	Planar B₃₈^{â^'}and B₃₇^{â^'}clusters with a double-hexagonal vacancy: molecular motifs for borophenes. Nanoscale, 2017, 9, 4550-4557.	5.6	76
11	B₁₁^{â^'}: a moving subnanoscale tank tread. Nanoscale, 2015, 7, 16054-16060.	5.6	72
12	Boronyl Chemistry: The BO Group as a New Ligand in Gas-Phase Clusters and Synthetic Compounds. Accounts of Chemical Research, 2014, 47, 2435-2445.	15.6	71
13	Saturn-like charge-transfer complexes Li₄&B₃₆, Li₅&B₃₆⁺, and Li₆&B₃₆²⁺: exohedral metalloborospherenes with a perfect cage-like B₃₆^{4â^'}core. Physical Chemistry Chemical Physics, 2016, 18, 9922-9926.	2.8	58
14	Double-chain planar D2h B4H2, C2h B8H2, and C2h B12H2: conjugated aromatic borenes. Physical Chemistry Chemical Physics, 2012, 14, 14769.	2.8	51
15	Endohedral Ca@B₃₈: stabilization of a B₃₈^{2â^'}borospherene dianion by metal encapsulation. Physical Chemistry Chemical Physics, 2016, 18, 11610-11615.	2.8	50
16	Chemical bonding and dynamic fluxionality of a B₁₅⁺cluster: a nanoscale double-axle tank tread. Physical Chemistry Chemical Physics, 2016, 18, 15774-15782.	2.8	48
17	B26â^': The smallest planar boron cluster with a hexagonal vacancy and a complicated potential landscape. Chemical Physics Letters, 2017, 683, 336-341.	2.6	48
18	Endohedral charge-transfer complex Ca@B₃₇^{â^'}: stabilization of a B₃₇^{3â^'}borospherene trianion by metal-encapsulation. Physical Chemistry Chemical Physics, 2016, 18, 14186-14190.	2.8	45

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19	Investigation of pH sensitivity of poly(acrylic acid-co-acrylamide) hydrogel. Polymer International, 2003, 52, 1153-1157.	3.1	44
20	Binary nature of monolayer boron sheets from ab initio global searches. Journal of Chemical Physics, 2013, 138, 024701.	3.0	44
21	Planar B₄₁^{â^'}and B₄₂^{â^'}clusters with double-hexagonal vacancies. Nanoscale, 2019, 11, 23286-23295.	5.6	44
22	Perfectly planar boronyl boroxine D3h B6O6: A boron oxide analog of boroxine and benzene. Journal of Chemical Physics, 2013, 138, 244304.	3.0	43
23	B₄₈^{â^'}: a bilayer boron cluster. Nanoscale, 2021, 13, 3868-3876.	5.6	43
24	B₃₃^{â€“} and B₃₄^{â€“}: Aromatic Planar Boron Clusters with a Hexagonal Vacancy. European Journal of Inorganic Chemistry, 2017, 2017, 4546-4551.	2.0	41
25	Pi and sigma double conjugations in boronyl polyboroene nanoribbons: B_n(BO)₂^{â^'} and B_n(BO)₂ (n = 5â^'12). Journal of Chemical Physics, 2013, 139, 174301.	3.0	40
26	Neutral Au₁-Doped Cluster Catalysts AuTi₂O_{3â€“6} for CO Oxidation by O₂. Journal of the American Chemical Society, 2019, 141, 2027-2034.	13.7	39
27	Photoelectron spectroscopy of boron-gold alloy clusters and boron boronyl clusters: B3Aunâ^' and B3(BO)nâ^' (n = 1, 2). Journal of Chemical Physics, 2013, 139, 044308.	3.0	32
28	Ribbon aromaticity in double-chain planar BnH22â^' and Li2BnH2 nanoribbon clusters up to n = 22: lithiated boron dihydride analogues of polyenes. Physical Chemistry Chemical Physics, 2013, 15, 18872.	2.8	31
29	Nickel-catalyzed cross-coupling of carboxylic anhydrides with arylboronic acids. RSC Advances, 2014, 4, 53885-53890.	3.6	31
30	Endohedral C₃Ca@B₃₉⁺and C₂Ca@B₃₉⁺: axially chiral metalloborospherenes based on B₃₉^{â^'}. Physical Chemistry Chemical Physics, 2015, 17, 19690-19694.	2.8	31
31	Chemical bonding in electron-deficient boron oxide clusters: core boronyl groups, dual 3câ€“4e hypervalent bonds, and rhombic 4câ€“4e bonds. Physical Chemistry Chemical Physics, 2014, 16, 7274.	2.8	29
32	Coupling of Methane and Carbon Dioxide Mediated by Diatomic Copper Boride Cations. Angewandte Chemie - International Edition, 2018, 57, 14134-14138.	13.8	27
33	Probing the structures and chemical bonding of boron-boronyl clusters using photoelectron spectroscopy and computational chemistry: B4(BO)nâ^' (n = 1â€“3). Journal of Chemical Physics, 2012, 137, 044307.	3.0	26
34	On the structures and bonding in boron-gold alloy clusters: B6Aunâ^' and B6Aun (n = 1â^'3). Journal of Chemical Physics, 2013, 138, 084306.	3.0	24
35	CH(phenol)-Bridged Bis(imino)pyridines as Compartmental Supports for Diiron Precatalysts for Ethylene Polymerization: Exploring Cooperative Effects on Performance. Organometallics, 2018, 37, 4002-4014.	2.3	24
36	Ï€-Aromatic B16H6: A Neutral Boron Hydride Analogue of Naphthalene. Journal of Cluster Science, 2011, 22, 513-523.	3.3	23

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37	Photoelectron spectroscopy of B4O4â^': Dual 3c-4e Ï€ hyperbonds and rhombic 4c-4e o-bond in boron oxide clusters. Journal of Chemical Physics, 2015, 142, 134305.	3.0	23
38	Cage-like B₃₉⁺clusters with the bonding pattern of Ïƒ + Ï€ double delocalization: new members of the borospherene family. Physical Chemistry Chemical Physics, 2017, 19, 10998-11003.	2.8	23
39	Photoelectron spectroscopy of lithium and gold alloyed boron oxide clusters: charge transfer complexes, covalent gold, hyperhalogen, and dual three-center four-electron hyperbonds. Physical Chemistry Chemical Physics, 2014, 16, 5129.	2.8	22
40	Ni(ii) source as a pre-catalyst for the cross-coupling of benzylic pivalates with arylboronic acids: facile access to tri- and diarylmethanes. RSC Advances, 2015, 5, 15338-15340.	3.6	22
41	B₃₁^{â^'} and B₃₂^{â^'}: chiral quasi-planar boron clusters. Nanoscale, 2019, 11, 9698-9704.	5.6	22
42	Perfectly planar concentric Ï€-aromatic B18H3â^', B18H4, B18H5+, and B18H62+ with [10]annulene character. Physical Chemistry Chemical Physics, 2011, 13, 20620.	2.8	20
43	Methylene-bridged bimetallic bis(imino)pyridine-cobaltous chlorides as precatalysts for vinyl-terminated polyethylene waxes. Dalton Transactions, 2018, 47, 6124-6133.	3.3	20
44	1,5-Naphthyl-linked bis(imino)pyridines as binucleating scaffolds for dicobalt ethylene oligo-/polymerization catalysts: exploring temperature and steric effects. Dalton Transactions, 2019, 48, 8264-8278.	3.3	19
45	Predicting lanthanide boride inverse sandwich tubular molecular rotors with the smallest coreâ€“shell structure. Nanoscale, 2019, 11, 21311-21316.	5.6	19
46	Thermal activation of methane by vanadium boride cluster cations VB_n⁺ (n = 3â€“6). Physical Chemistry Chemical Physics, 2018, 20, 4641-4645.	2.8	17
47	Cage-like B40 +: a perfect borospherene monocation. Journal of Molecular Modeling, 2016, 22, 124.	1.8	16
48	B30H8, B39H9 2â^', B42H10, B48H10, and B72H12: polycyclic aromatic snub hydroboron clusters analogous to polycyclic aromatic hydrocarbons. Journal of Molecular Modeling, 2013, 19, 1195-1204.	1.8	15
49	Bilayer B 54 , B 60 , and B 62 Clusters in a Universal Structural Pattern. European Journal of Inorganic Chemistry, 2020, 2020, 3296-3301.	2.0	15
50	Planar dicyclic B6S6, B6S6â^', and B6S62â^' clusters: Boron sulfide analogues of naphthalene. Journal of Chemical Physics, 2015, 142, 014302.	3.0	14
51	A first-principles study on the B5O5+/0 and B5O5â^' clusters: The boron oxide analogs of C6H5+/0 and CH3Cl. Journal of Chemical Physics, 2015, 143, 064303.	3.0	14
52	Aromatic cage-like B₃₄ and B₃₅⁺: new axially chiral members of the borospherene family. Physical Chemistry Chemical Physics, 2018, 20, 15344-15349.	2.8	13
53	A novel borophene featuring heptagonal holes: a common precursor of borospherenes. Physical Chemistry Chemical Physics, 2017, 19, 19890-19895.	2.8	12
54	Charge-induced structural transition between seashell-like B₂₉^{â^'} and B₂₉⁺ in 18 Ï€-electron configurations. Physical Chemistry Chemical Physics, 2018, 20, 15330-15334.	2.8	12

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55	Cageâ€Like B₄₁⁺ and B₄₂²⁺: New Chiral Members of the Borospherene Family. Angewandte Chemie, 2015, 127, 8278-8282.	2.0	11
56	â€œW-X-Mâ€•transformations in isomerization of B39â˜' borospherenes. AIP Advances, 2016, 6, .	1.3	11
57	Transition-metal-like bonding behaviors of a boron atom in a boron-cluster boronyl complex [(Î·⁷-B₇)-B-BO]^{â˜'}. Chemical Science, 2021, 12, 8157-8164.	7.4	11
58	Coupling of Methane and Carbon Dioxide Mediated by Diatomic Copper Boride Cations. Angewandte Chemie, 2018, 130, 14330-14334.	2.0	10
59	Mechanistic Variants in Methane Activation Mediated by Gold(I) Supported on Silicon Oxide Clusters. Chemistry - A European Journal, 2018, 24, 17506-17512.	3.3	10
60	Methyleneâ€bridged bis(8â€arylimino)â€5,6,7â€trihydroâ€quinolylinickel precatalysts for ethylene polymerization. Journal of Polymer Science, 2020, 58, 1675-1686.	3.8	8
61	Homo-Coupling of Terminal Alkynes Using a Simple, Cheap Ni(dppe)Cl₂/Ag₂O Catalyst System. Synthetic Communications, 2015, 45, 824-830.	2.1	7
62	From Quasi-Planar B56 to Penta-Ring Tubular CaÂ©B56: Prediction of Metal-Stabilized CaÂ©B56 as the Embryo of Metal-Doped Boron Î±-Nanotubes. Scientific Reports, 2016, 6, 37893.	3.3	7
63	Pyrazino-[2,3-f][1,10]phenanthroline as a new anchoring group of organic dyes for dye-sensitized solar cells. RSC Advances, 2015, 5, 46206-46209.	3.6	5
64	Boronyl as a terminal ligand in boron oxide clusters: hexagonal ring C_{2v}B₆O₄and ethylene-like D_{2h}B₆O₄^{â˜'/2â˜'}. Physical Chemistry Chemical Physics, 2015, 17, 19929-19935.	2.8	5
65	Selective Generation of Free Hydrogen Atoms in the Reaction of Methane with Diatomic Gold Boride Cations. Zeitschrift Fur Physikalische Chemie, 2019, 233, 785-797.	2.8	5
66	Investigation of the gelation process by in-situ interferometry. Macromolecular Rapid Communications, 2000, 21, 998-1001.	3.9	4
67	Ribbon Aromaticity of Double-Chain B2n C2H2 Clusters (nÂ=Â2â€“9): A First Principle Study. Journal of Cluster Science, 2015, 26, 2043-2050.	3.3	4
68	Boron-lead multiple bonds in the PbB2Oâ€“ and PbB3O2â€“ clusters. Communications Chemistry, 2022, 5, .	4.5	4