Jorge Barroso

List of Publications by Year in descending order

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84	4,571	71102 41	106344 65
papers	citations	h-index	g-index

87	87	87	1616
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Structural transformations in boron clusters induced by metal doping. Chemical Society Reviews, 2022, 51, 1098-1123.	38.1	47
2	Bare and ligand protected planar hexacoordinate silicon in SiSb₃M₃⁺ (M = Ca, Sr, Ba) clusters. Chemical Science, 2022, 13, 8045-8051.	7.4	13
3	Planar tetracoordinate fluorine atoms. Chemical Science, 2021, 12, 6699-6704.	7.4	25
4	Planar Hexacoordinate Carbons: Half Covalent, Half Ionic. Angewandte Chemie - International Edition, 2021, 60, 8700-8704.	13.8	40
5	Planar Hexacoordinate Carbons: Half Covalent, Half Ionic. Angewandte Chemie, 2021, 133, 8782-8786.	2.0	9
6	Planar Tetracoordinate Carbons in Allene-Type Structures. Journal of Physical Chemistry A, 2021, 125, 3009-3014.	2.5	12
7	Magnetically Induced Ring-Current Strengths of Planar and Nonplanar Molecules: New Insights from the Pseudo-Ï€ Model. Journal of Physical Chemistry A, 2021, 125, 5753-5764.	2.5	17
8	Planar Hypercoordinate Carbons in Alkali Metal Decorated CE 3 2â^' and CE 2 2â^' Dianions. Chemistry - A European Journal, 2021, 27, 16701-16706.	3.3	11
9	Consequences of Curvature on Induced Magnetic Field: The Case of Helicenes. Chemistry - A European Journal, 2020, 26, 326-330.	3.3	21
10	Embedding a Planar Hypercoordinate Carbon Atom into a [4n+2] Ï€â€System. ChemPhysChem, 2020, 21, 145-148.	2.1	22
11	Planar pentacoordinate silicon and germanium atoms. Chemical Communications, 2020, 56, 13772-13775.	4.1	17
12	Structural effects of alkali-metals on the B₁₂ skeleton. Physical Chemistry Chemical Physics, 2020, 22, 17344-17350.	2.8	17
13	Head to Tail Distortion Wave Characterizes the Enantiomerization of Helicenes. Journal of Organic Chemistry, 2020, 85, 15415-15421.	3.2	3
14	Structure and bonding of molecular stirrers with formula B₇M₂^{â^'} and B₈M₂ (M = Zn, Cd, Hg). Physical Chemistry Chemical Physics, 2020, 22, 12312-12320.	2.8	20
15	Planar or tetrahedral? A ternary 17-electron CBe₅H₄⁺ cluster with planar pentacoordinate carbon. Chemical Communications, 2020, 56, 8305-8308.	4.1	42
16	Delocalization in Substituted Benzene Dications: A Magnetic Point of View. ChemistryOpen, 2020, 9, 657-661.	1.9	4
17	Hydrogenâ€Bonded Crystalline Molecular Machines with Ultrafast Rotation and Displacive Phase Transitions. Chemistry - A European Journal, 2020, 26, 11727-11733.	3.3	13
18	Evaluation of restricted probabilistic cellular automata on the exploration of the potential energy surface of Be6B11â^'. Theoretical Chemistry Accounts, 2020, 139, 1.	1.4	26

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19	Revisiting the Rearrangement of Dewar Thiophenes. Molecules, 2020, 25, 284.	3.8	10
20	Probing Hyperconjugative Aromaticity of Monosubstituted Cyclopentadienes. Asian Journal of Organic Chemistry, 2019, 8, 123-127.	2.7	19
21	How Far Can One Push the Noble Gases Towards Bonding?: A Personal Account. Molecules, 2019, 24, 2933.	3.8	34
22	Fluxional Boron Clusters: From Theory to Reality. Accounts of Chemical Research, 2019, 52, 2732-2744.	15.6	79
23	Li₂B₂₄: the simplest combination for a three-ring boron tube. Nanoscale, 2019, 11, 2143-2147.	5.6	52
24	B10M2 (M = Rh, Ir): finally a stable boron-based icosahedral cluster. Chemical Communications, 2019, 55, 7490-7493.	4.1	22
25	Origin of the isotropic motion in crystalline molecular rotors with carbazole stators. Chemical Science, 2019, 10, 4422-4429.	7.4	11
26	Exhaustive exploration of MgB_n (n = 10â€“20) clusters and their anions. Physical Chemistry Chemical Physics, 2019, 21, 6935-6941.	2.8	61
27	The base-catalyzed keto-enol tautomerism of chrysophanol anthrone. A DFT investigation of the base-catalyzed reaction. Molecular Simulation, 2019, 45, 716-723.	2.0	2
28	Li₂B₁₂ and Li₃B₁₂: Prediction of the Smallest Tubular and Cageâ€like Boron Structures. Angewandte Chemie - International Edition, 2018, 57, 4627-4631.	13.8	73
29	Planar pentacoordinate carbon in CGa₅⁺ derivatives. Physical Chemistry Chemical Physics, 2018, 20, 12350-12355.	2.8	41
30	Planar pentacoordinate carbons. Nature Reviews Chemistry, 2018, 2, .	30.2	118
31	Structure and Bonding in CE₅^{â”} (E=Alâ€“Tl) Clusters: Planar Tetracoordinate Carbon versus Pentacoordinate Carbon. Chemistry - an Asian Journal, 2018, 13, 1467-1473.	3.3	30
32	Boron Nanowheels with Axles Containing Noble Gas Atoms: Viable Noble Gas Bound MÂ©B₁₀^{â”} Clusters (M=Nb, Ta). Chemistry - A European Journal, 2018, 24, 3590-3598.	3.3	19
33	Revisiting the racemization mechanism of helicenes. Chemical Communications, 2018, 54, 188-191.	4.1	107
34	Revisiting the Formation Mechanism of 1,3,4-Oxadiazole-2(3H)-ones from Hydrazonyl Chloride and Carbon Dioxide. Journal of Organic Chemistry, 2018, 83, 13045-13050.	3.2	10
35	Isomerization and luminescent properties of Schiff-base aluminum complexes containing 1H-pyrrole-2-carbaldehyde moieties. Inorganica Chimica Acta, 2018, 482, 535-541.	2.4	3
36	Noble Gas Inserted Metal Acetylides (Metal = Cu, Ag, Au). Journal of Physical Chemistry A, 2018, 122, 7391-7401.	2.5	25

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37	Bonding and Mobility of Alkali Metals in Helicenes. Chemistry - A European Journal, 2018, 24, 11227-11233.	3.3	6
38	E₅M₇⁺ (E=Câ€“Pb, M=Liâ€“Cs): A Source of Viable Starâ€Shaped Clusters. Chemistry - an Asian Journal, 2018, 13, 1751-1755.	3.3	15
39	Planar pentacoordinate carbon atoms embedded in a metallocene framework. Chemical Communications, 2017, 53, 138-141.	4.1	56
40	E₃M₃⁺ (E=Câ€“Pb, M=Liâ€“Cs) Clusters: The Smallest Molecular Stars. Chemistry - A European Journal, 2017, 23, 11430-11436.	3.3	12
41	A Spinning Umbrella: Carbon Monoxide and Dinitrogen Bound MB₁₂^{â€“} Clusters (M = Co, Rh, Ir). Journal of Physical Chemistry A, 2017, 121, 2971-2979.	2.5	31
42	Structure and Bonding of Alkali-Metal Pentalenides. Organometallics, 2017, 36, 310-317.	2.3	8
43	Coaxial Tripleâ€Layered versus Helical Be₆B₁₁^{â^’} Clusters: Dual Structural Fluxionality and Multifold Aromaticity. Angewandte Chemie - International Edition, 2017, 56, 10174-10177.	13.8	83
44	Celebrating the 150th anniversary of the KekulÃ© benzene structure. Physical Chemistry Chemical Physics, 2016, 18, 11587-11588.	2.8	26
45	Dynamical behavior of boron clusters. Nanoscale, 2016, 8, 17639-17644.	5.6	67
46	10-Ï€-Electron arenes Ã la carte: structure and bonding of the [Eâ€“(C_nH_n)â€“E]^{nâ^’6} (E = Ca, Sr, Ba; n = 6â€“8) complexes. Physical Chemistry Chemical Physics, 2016, 18, 11909-11918.	2.8	29
47	Structure and bonding of IrB₁₂^{â^’}: converting a rigid boron B₁₂ platelet to a Wankel motor. RSC Advances, 2016, 6, 27177-27182.	3.6	67
48	Revisiting Aromaticity and Chemical Bonding of Fluorinated Benzene Derivatives. ChemistryOpen, 2015, 4, 302-307.	1.9	33
49	Dynamical behavior of Borospherene: A Nanobubble. Scientific Reports, 2015, 5, 11287.	3.3	81
50	A hierarchical algorithm for molecular similarity (<scp>Hâ€FORMS</scp>). Journal of Computational Chemistry, 2015, 36, 1456-1466.	3.3	41
51	Recent developments and future prospects of all-metal aromatic compounds. Chemical Society Reviews, 2015, 44, 6519-6534.	38.1	128
52	Planar pentacoordinate carbons in CBe₅^{4â^’} derivatives. Physical Chemistry Chemical Physics, 2015, 17, 4620-4624.	2.8	66
53	Planar tetracoordinate carbons with a double bond in CAl₃E clusters. Physical Chemistry Chemical Physics, 2015, 17, 8769-8775.	2.8	57
54	Exploring the Potential Energy Surface of E₂P₄ Clusters (E=Groupâ€...13 Element): The Quest for Inverse Carbonâ€Free Sandwiches. Chemistry - A European Journal, 2014, 20, 4583-4590.	3.3	19

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55	Stop rotating! One substitution halts the B₁₉^{â^'}motor. Chemical Communications, 2014, 50, 10680.	4.1	47
56	B₁₈^{2â^'}: a quasi-planar bowl member of the Wankel motor family. Chemical Communications, 2014, 50, 8140-8143.	4.1	107
57	Structural evolution of small gold clusters doped by one and two boron atoms. Journal of Computational Chemistry, 2014, 35, 2288-2296.	3.3	55
58	Reâ€examination of the C₆Li₆ Structure: To Be, or not To Be Symmetric. Chemistry - A European Journal, 2013, 19, 12668-12672.	3.3	20
59	Is Al₂Cl₆ Aromatic? Cautions in Superficial NICS Interpretation. Journal of Physical Chemistry A, 2013, 117, 5529-5533.	2.5	45
60	Isomerization Energy Decomposition Analysis for Highly Ionic Systems: Case Study of Starlike E₅Li₇⁺ Clusters. Chemistry - A European Journal, 2013, 19, 2305-2310.	3.3	56
61	Analysis of Aromaticity in Planar Metal Systems using the Linear Response Kernel.. Journal of Physical Chemistry A, 2013, 117, 3556-3560.	2.5	26
62	D3h CN3Be3+ and CO3Li3+: viable planar hexacoordinate carbon prototypes. Physical Chemistry Chemical Physics, 2012, 14, 14760.	2.8	59
63	And Yet It Rotates: The Starter for a Molecular Wankel Motor. Angewandte Chemie - International Edition, 2012, 51, 10226-10227.	13.8	51
64	CBe5Eâ^' (E = Al, Ga, In, Tl): planar pentacoordinate carbon in heptaatomic clusters. Physical Chemistry Chemical Physics, 2012, 14, 14764.	2.8	55
65	The Induced Magnetic Field. Accounts of Chemical Research, 2012, 45, 215-228.	15.6	204
66	What Is the Maximum Coordination Number in a Planar Structure?. Angewandte Chemie - International Edition, 2012, 51, 4275-4276.	13.8	70
67	Planar tetracoordinate carbon in CE42â^' (E=Alâ€“Tl) clusters. Chemical Physics Letters, 2012, 519-520, 29-33.	2.6	56
68	Unravelling phenomenon of internal rotation in B13+ through chemical bonding analysis. Chemical Communications, 2011, 47, 6242.	4.1	120
69	Stabilizing carbon-lithium stars. Physical Chemistry Chemical Physics, 2011, 13, 12975.	2.8	45
70	Planar Tetracoordinate Carbon versus Planar Tetracoordinate Boron: The Case of CB₄ and Its Cation. Journal of the American Chemical Society, 2011, 133, 13228-13231.	13.7	99
71	Starlike Aluminumâ€“Carbon Aromatic Species. Chemistry - A European Journal, 2011, 17, 714-719.	3.3	45
72	B₁₉^{2â^'}: An Aromatic Wankel Motor. Angewandte Chemie - International Edition, 2010, 49, 5668-5671.	13.8	162

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73	Structure and stability of Si6Li6: Aromaticity vs polarizability. Chemical Physics Letters, 2010, 496, 172-174.	2.6	20
74	Scalar and Spinâ^'Orbit Relativistic Corrections to the NICS and the Induced Magnetic Field: The case of the E₁₂^{2â^'} Spherenes (E = Ge, Sn, Pb). Journal of Chemical Theory and Computation, 2010, 6, 2701-2705.	5.3	44
75	Not All That Has a Negative NICS Is Aromatic: The Case of the H-Bonded Cyclic Trimer of HF. Journal of Chemical Theory and Computation, 2010, 6, 1131-1135.	5.3	81
76	CAl4Be and CAl3Be2â^': global minima with a planar pentacoordinate carbon atom. Chemical Communications, 2010, 46, 8776.	4.1	104
77	Designing 3-D Molecular Stars. Journal of the American Chemical Society, 2009, 131, 9426-9431.	13.7	78
78	Structure and Electron Delocalization in Al42- and Al44-. Journal of Chemical Theory and Computation, 2007, 3, 775-781.	5.3	53
79	Multimetallocenes. A Theoretical Study. Organometallics, 2007, 26, 4731-4736.	2.3	118
80	Boron Rings Enclosing Planar Hypercoordinate Group 14 Elements. Journal of the American Chemical Society, 2007, 129, 14767-14774.	13.7	129
81	Recent advances in planar tetracoordinate carbon chemistry. Journal of Computational Chemistry, 2007, 28, 362-372.	3.3	211
82	Ïƒ and Ï€ contributions to the induced magnetic field: Indicators for the mobility of electrons in molecules. Journal of Computational Chemistry, 2007, 28, 302-309.	3.3	119
83	The Induced Magnetic Field in Cyclic Molecules. Chemistry - A European Journal, 2004, 10, 4367-4371.	3.3	266
84	Theoretical Analysis of the Smallest Carbon Cluster Containing a Planar Tetracoordinate Carbon. Journal of the American Chemical Society, 2004, 126, 16160-16169.	13.7	126