

Yirong Mo

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180
papers

6,550
citations

44
h-index

75
g-index

190
ext. papers

7,087
ext. citations

5.2
avg. IF

6.19
L-index

#	Paper	IF	Citations
180	Energy decomposition analysis of intermolecular interactions using a block-localized wave function approach. <i>Journal of Chemical Physics</i> , 2000 , 112, 5530-5538	3.9	312
179	Theoretical analysis of electronic delocalization. <i>Journal of Chemical Physics</i> , 1998 , 109, 1687-1697	3.9	273
178	Block-localized wavefunction (BLW) method at the density functional theory (DFT) level. <i>Journal of Physical Chemistry A</i> , 2007 , 111, 8291-301	2.8	218
177	Magnetic Evidence for the Aromaticity and Antiaromaticity of Charged Fluorenyl, Indenyl, and Cyclopentadienyl Systems. <i>Journal of the American Chemical Society</i> , 1997 , 119, 7075-7083	16.4	206
176	On The Nature of the Halogen Bond. <i>Journal of Chemical Theory and Computation</i> , 2014 , 10, 3726-37	6.4	194
175	XMVB: a program for ab initio nonorthogonal valence bond computations. <i>Journal of Computational Chemistry</i> , 2005 , 26, 514-21	3.5	187
174	The concept of protobranching and its many paradigm shifting implications for energy evaluations. <i>Chemistry - A European Journal</i> , 2007 , 13, 7731-44	4.8	173
173	Energy decomposition analysis based on a block-localized wavefunction and multistate density functional theory. <i>Physical Chemistry Chemical Physics</i> , 2011 , 13, 6760-75	3.6	171
172	Theoretical analysis of the rotational barrier of ethane. <i>Accounts of Chemical Research</i> , 2007 , 40, 113-9	24.3	159
171	Computational evidence that hyperconjugative interactions are not responsible for the anomeric effect. <i>Nature Chemistry</i> , 2010 , 2, 666-71	17.6	158
170	Ab initio QM/MM simulations with a molecular orbital-valence bond (MOVB) method: application to an SN2 reaction in water. <i>Journal of Computational Chemistry</i> , 2000 , 21, 1458-1469	3.5	137
169	The magnitude of hyperconjugation in ethane: a perspective from ab initio valence bond theory. <i>Angewandte Chemie - International Edition</i> , 2004 , 43, 1986-90	16.4	131
168	An energetic measure of aromaticity and antiaromaticity based on the Pauling-Wheland resonance energies. <i>Chemistry - A European Journal</i> , 2006 , 12, 2009-20	4.8	130
167	Cation-pi interactions: an energy decomposition analysis and its implication in delta-opioid receptor-ligand binding. <i>Journal of the American Chemical Society</i> , 2002 , 124, 4832-7	16.4	129
166	An Ab Initio Molecular Orbital-Valence Bond (MOVB) Method for Simulating Chemical Reactions in Solution. <i>Journal of Physical Chemistry A</i> , 2000 , 104, 3012-3020	2.8	116
165	A Simple Electrostatic Model for Trisilylamine: Theoretical Examinations of the n- π^* Negative Hyperconjugation, p π - π Bonding, and Stereoelectronic Interaction. <i>Journal of the American Chemical Society</i> , 1999 , 121, 5737-5742	16.4	102
164	Geometrical optimization for strictly localized structures. <i>Journal of Chemical Physics</i> , 2003 , 119, 1300-1306	3.6	93

163	Block-Localized Density Functional Theory (BLDFT), Diabatic Coupling, and Their Use in Valence Bond Theory for Representing Reactive Potential Energy Surfaces. <i>Journal of Chemical Theory and Computation</i> , 2009 , 5, 2702-2716	6.4	91
162	Charge transfer in the electron donor-acceptor complex BH ₃ NH ₃ . <i>Journal of the American Chemical Society</i> , 2004 , 126, 3974-82	16.4	87
161	How resonance assists hydrogen bonding interactions: an energy decomposition analysis. <i>Journal of Computational Chemistry</i> , 2007 , 28, 455-66	3.5	85
160	Polarization and Charge-Transfer Effects in Lewis Acid-Base Complexes. <i>Journal of Physical Chemistry A</i> , 2001 , 105, 6530-6536	2.8	79
159	New insight on the origin of the unusual acidity of Meldrum's acid from ab initio and combined QM/MM simulation study. <i>Journal of the American Chemical Society</i> , 2001 , 123, 3974-9	16.4	78
158	4n pi electrons but stable: N,N-dihydrodiazapentacenes. <i>Journal of Organic Chemistry</i> , 2009 , 74, 4343-9	4.2	71
157	C-Halogen Bonding Driven Supramolecular Helix of Bilateral N-Amidothiureas Bearing Turns. <i>Journal of the American Chemical Society</i> , 2017 , 139, 6605-6610	16.4	70
156	Nine questions on energy decomposition analysis. <i>Journal of Computational Chemistry</i> , 2019 , 40, 2248-2283	3.9	70
155	Molecular dynamics simulations on the Escherichia coli ammonia channel protein AmtB: mechanism of ammonia/ammonium transport. <i>Journal of the American Chemical Society</i> , 2006 , 128, 10876-84	16.4	67
154	Enzymatic mechanism of Fe-only hydrogenase: density functional study on H-H making/breaking at the diiron cluster with concerted proton and electron transfers. <i>Inorganic Chemistry</i> , 2004 , 43, 923-30	5.1	65
153	How do electron localization functions describe electron delocalization?. <i>Physical Chemistry Chemical Physics</i> , 2011 , 13, 20584-92	3.6	62
152	Probing the nature of hydrogen bonds in DNA base pairs. <i>Journal of Molecular Modeling</i> , 2006 , 12, 665-72	7.2	61
151	Delocalization in Allyl Cation, Radical, and Anion. <i>The Journal of Physical Chemistry</i> , 1996 , 100, 6469-6474		61
150	Is cyclobutadiene really highly destabilized by antiaromaticity?. <i>Chemical Communications</i> , 2012 , 48, 8437-9	3.9	60
149	Theoretical Resonance Energies of Benzene, Cyclobutadiene, and Butadiene. <i>The Journal of Physical Chemistry</i> , 1994 , 98, 10048-10053		60
148	Electron transfer in pnictogen bonds. <i>Journal of Physical Chemistry A</i> , 2014 , 118, 8911-21	2.8	59
147	Importance of Electronic Delocalization on the C-N Bond Rotation in HCX(NH ₂) (X = O, NH, CH ₂ , S, and Se). <i>Journal of Physical Chemistry A</i> , 2003 , 107, 10011-10018	2.8	59
146	Bond-Distorted Orbitals and Effects of Hybridization and Resonance on C-C Bond Lengths. <i>The Journal of Physical Chemistry</i> , 1996 , 100, 11569-11572		55

145	Is cyclopropane really the sigma-aromatic paradigm?. <i>Chemistry - A European Journal</i> , 2009 , 15, 9730-6	4.8	52
144	Can QTAIM topological parameters be a measure of hydrogen bonding strength?. <i>Journal of Physical Chemistry A</i> , 2012 , 116, 5240-6	2.8	51
143	The origins of the directionality of noncovalent intermolecular interactions. <i>Journal of Computational Chemistry</i> , 2016 , 37, 34-45	3.5	49
142	Why Cyclooctatetraene Is Highly Stabilized: The Importance of "Two-Way" (Double) Hyperconjugation. <i>Journal of Chemical Theory and Computation</i> , 2012 , 8, 1280-7	6.4	47
141	An efficient algorithm for energy gradients and orbital optimization in valence bond theory. <i>Journal of Computational Chemistry</i> , 2009 , 30, 399-406	3.5	47
140	Direct assessment of electron delocalization using NMR chemical shifts. <i>Angewandte Chemie - International Edition</i> , 2009 , 48, 9828-33	16.4	46
139	Polarization and charge-transfer effects in aqueous solution via ab initio QM/MM simulations. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 2976-80	3.4	46
138	The Magnitude of Hyperconjugation in Ethane: A Perspective from Ab Initio Valence Bond Theory. <i>Angewandte Chemie</i> , 2004 , 116, 2020-2024	3.6	45
137	How to properly compute the resonance energy within the ab initio valence bond theory: a response to the ZHJVL paper. <i>Theoretical Chemistry Accounts</i> , 2010 , 127, 27-38	1.9	44
136	Red-Shifting versus Blue-Shifting Hydrogen Bonds: Perspective from Ab Initio Valence Bond Theory. <i>Journal of Physical Chemistry A</i> , 2016 , 120, 2749-56	2.8	44
135	Computer-aided drug design: lead discovery and optimization. <i>Combinatorial Chemistry and High Throughput Screening</i> , 2012 , 15, 328-37	1.3	43
134	Efficient algorithm for the spin-free valence bond theory. I. New strategy and primary expressions. <i>International Journal of Quantum Chemistry</i> , 1998 , 67, 287-297	2.1	43
133	Steric strain versus hyperconjugative stabilization in ethane congeners. <i>Journal of Physical Chemistry A</i> , 2005 , 109, 2310-6	2.8	43
132	Hydrogen- and Halogen-Bonds between Ions of like Charges: Are They Anti-Electrostatic in Nature?. <i>Journal of Computational Chemistry</i> , 2018 , 39, 481-487	3.5	42
131	The B-H...H-P dihydrogen bonding in ion pair complexes [(CF ₃) ₃ BH(-)][HPH(3-n)(Me)(n)(+)] (n = 0-3) and its implication in H(2) elimination and activation reactions. <i>Journal of Physical Chemistry A</i> , 2009 , 113, 8108-17	2.8	41
130	Insight into the relative reactivity of "frustrated Lewis pairs" and stable carbenes in activating H ₂ and CH ₄ : a comparative computational study. <i>Physical Chemistry Chemical Physics</i> , 2010 , 12, 5268-75	3.6	41
129	A Unified Theory for the Blue- and Red-Shifting Phenomena in Hydrogen and Halogen Bonds. <i>Journal of Chemical Theory and Computation</i> , 2017 , 13, 1626-1637	6.4	40
128	Dispersion-corrected energy decomposition analysis for intermolecular interactions based on the BLW and dDXDM methods. <i>Journal of Physical Chemistry A</i> , 2011 , 115, 5467-77	2.8	38

127	Resonance effect in the allyl cation and anion: a revisit. <i>Journal of Organic Chemistry</i> , 2004 , 69, 5563-7	4.2	38
126	The resonance energy of benzene: a revisit. <i>Journal of Physical Chemistry A</i> , 2009 , 113, 5163-9	2.8	37
125	The Self-Association of Graphane Is Driven by London Dispersion and Enhanced Orbital Interactions. <i>Journal of Chemical Theory and Computation</i> , 2015 , 11, 1621-30	6.4	36
124	On the nature of blueshifting hydrogen bonds. <i>Chemistry - A European Journal</i> , 2014 , 20, 8444-52	4.8	36
123	How the generalized anomeric effect influences the conformational preference. <i>Chemistry - A European Journal</i> , 2013 , 19, 1436-44	4.8	35
122	Rotational barriers in alkanes. <i>Wiley Interdisciplinary Reviews: Computational Molecular Science</i> , 2011 , 1, 164-171	7.9	34
121	Sensing or no sensing: can the anomeric effect be probed by a sensing molecule?. <i>Journal of the American Chemical Society</i> , 2011 , 133, 13731-6	16.4	34
120	Molecular dynamics simulations of the detoxification of paraoxon catalyzed by phosphotriesterase. <i>Journal of Computational Chemistry</i> , 2009 , 30, 2388-401	3.5	33
119	A spin-free approach for valence bond theory and its applications. <i>Theoretical and Computational Chemistry</i> , 2002 , 143-185		33
118	A critical analysis on the rotation barriers in butane. <i>Journal of Organic Chemistry</i> , 2010 , 75, 2733-6	4.2	32
117	Theoretical study of conjugation, hyperconjugation, and steric effect in B2D4 (D=H, F, OH, NH2, and CH3). <i>Journal of Chemical Physics</i> , 1996 , 105, 1046-1051	3.9	32
116	Origins of Rotational Barriers in Hydrogen Peroxide and Hydrazine. <i>Journal of Chemical Theory and Computation</i> , 2005 , 1, 394-402	6.4	31
115	Single-handed supramolecular double helix of homochiral bis(N-amidothiourea) supported by double crossed C-H...S halogen bonds. <i>Nature Communications</i> , 2019 , 10, 3610	17.4	29
114	A Critical Check for the Role of Resonance in Intramolecular Hydrogen Bonding. <i>Chemistry - A European Journal</i> , 2017 , 23, 16885-16891	4.8	28
113	Density functional study on dihydrogen activation at the H cluster in Fe-only hydrogenases. <i>Inorganic Chemistry</i> , 2005 , 44, 4941-6	5.1	28
112	How solvent influences the anomeric effect: roles of hyperconjugative versus steric interactions on the conformational preference. <i>Journal of Organic Chemistry</i> , 2014 , 79, 1571-81	4.2	27
111	Combined quantum mechanics/molecular mechanics study on the reversible isomerization of glucose and fructose catalyzed by <i>Pyrococcus furiosus</i> phosphoglucose isomerase. <i>Journal of the American Chemical Society</i> , 2008 , 130, 7022-31	16.4	27
110	Deprotonation mechanism of NH ₄ ⁺ in the <i>Escherichia coli</i> ammonium transporter AmtB: insight from QM and QM/MM calculations. <i>Angewandte Chemie - International Edition</i> , 2007 , 46, 6811-5	16.4	25

109	Y-aromaticity: why is the trimethylenemethane dication more stable than the butadienyl dication?. <i>Journal of Organic Chemistry</i> , 2005 , 70, 7605-16	4.2	24
108	Electron conjugation versus π -repulsion in substituted benzenes: why the carbon-nitrogen bond in nitrobenzene is longer than in aniline. <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 11821-8	3.6	23
107	Generalized X-Pol Theory and Charge Delocalization States. <i>Journal of Chemical Theory and Computation</i> , 2010 , 6, 2402-10	6.4	23
106	Amine-hydrogen halide complexes: experimental electric dipole moments and a theoretical decomposition of dipole moments and binding energies. <i>Journal of Physical Chemistry A</i> , 2006 , 110, 10025-34	2.8	23
105	On the resonance theory. <i>Computational and Theoretical Chemistry</i> , 1993 , 283, 227-236		23
104	Studies of Solvation Free Energies of Methylammoniums and Irregular Basicity Ordering of Methylamines in Aqueous Solution by a Combined Discrete-Continuum Model. <i>Journal of Physical Chemistry A</i> , 2004 , 108, 4277-4282	2.8	22
103	Hyperconjugation effect in substituted methyl boranes: an orbital deletion procedure analysis. <i>Journal of Organic Chemistry</i> , 2004 , 69, 3493-9	4.2	22
102	Sequential Mechanism of Methane Dehydrogenation over Metal (Mo or W) Oxide and Carbide Catalysts. <i>Journal of Physical Chemistry A</i> , 2000 , 104, 4505-4513	2.8	22
101	The Origin of the Non-Additivity in Resonance-Assisted Hydrogen Bond Systems. <i>Journal of Physical Chemistry A</i> , 2017 , 121, 8535-8541	2.8	21
100	Elucidation of the Forces Governing the Stereochemistry of Biphenyl. <i>European Journal of Organic Chemistry</i> , 2013 , 2013, 611-616	3.2	21
99	Block-Localized Wavefunction (BLW) Based Two-State Approach for Charge Transfers between Phenyl Rings. <i>Journal of Chemical Theory and Computation</i> , 2012 , 8, 800-5	6.4	21
98	An Effective Hamiltonian Molecular Orbital-Valence Bond (MOVb) Approach for Chemical Reactions Applied to the Nucleophilic Substitution Reaction of Hydrosulfide Ion and Chloromethane. <i>Journal of Chemical Theory and Computation</i> , 2009 , 5, 174-185	6.4	21
97	Application of the orbital deletion procedure (ODP) to planar carbocations. <i>Chemical Physics Letters</i> , 1998 , 289, 383-390	2.5	21
96	ELECTRONIC DELOCALIZATION: A QUANTITATIVE STUDY FROM MODERN AB INITIO VALENCE BOND THEORY. <i>Journal of Theoretical and Computational Chemistry</i> , 2002 , 01, 137-151	1.8	21
95	A theoretical perspective of the agostic effect in early transition metal compounds. <i>Coordination Chemistry Reviews</i> , 2020 , 419, 213401	23.2	20
94	The norbornene mystery revealed. <i>Chemical Communications</i> , 2011 , 47, 227-9	5.8	20
93	BLOCK-LOCALIZED WAVEFUNCTION ENERGY DECOMPOSITION (BLW-ED) ANALYSIS OF π INTERACTIONS IN METAL-CARBONYL BONDING. <i>Journal of Theoretical and Computational Chemistry</i> , 2008 , 07, 639-654	1.8	20
92	The Transition-Metal-Like Behavior of B (NHC) in the Activation of CO: HOMO-LUMO Swap Without Photoinduction. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 13076-13081	16.4	19

91	Study of intramolecular electron transfer with a two-state model based on the orbital deletion procedure. <i>Journal of Chemical Physics</i> , 2003 , 119, 6448-6456	3.9	18
90	Why are esters and amides weaker carbon acids than ketones and Acid fluorides? Contributions by resonance and inductive effects. <i>Journal of Organic Chemistry</i> , 2009 , 74, 7245-53	4.2	17
89	Quantitative evaluation of hyperconjugation in the cyclopropylcarbinyl cation and in cyclopropylborane. <i>Chemical Physics Letters</i> , 1997 , 280, 439-443	2.5	17
88	Two-state model based on the block-localized wave function method. <i>Journal of Chemical Physics</i> , 2007 , 126, 224104	3.9	17
87	Electron Transfer in Electrophilic Aromatic Nitration and Nitrosation: Computational Evidence for the Marcus Inverted Region. <i>Journal of Chemical Theory and Computation</i> , 2013 , 9, 4428-35	6.4	16
86	A Non-Orthogonal Block-Localized Effective Hamiltonian Approach for Chemical and Enzymatic Reactions. <i>Journal of Chemical Theory and Computation</i> , 2010 , 6, 2242-2251	6.4	16
85	Functional role of Asp160 and the deprotonation mechanism of ammonium in the Escherichia coli ammonia channel protein AmtB. <i>Journal of Physical Chemistry B</i> , 2009 , 113, 4922-9	3.4	16
84	The Block-Localized Wavefunction (BLW) Perspective of Chemical Bonding 2014 , 199-232		15
83	Why is the linking C-C bond in tetrahedranyltetrahedrane so short?. <i>Organic Letters</i> , 2006 , 8, 535-8	6.2	15
82	Two Push-Pull Channels Enhance the Dinitrogen Activation by Borylene Compounds. <i>Chemistry - A European Journal</i> , 2020 , 26, 2619-2625	4.8	15
81	Two states are not enough: quantitative evaluation of the valence-bond intramolecular charge-transfer model and its use in predicting bond length alternation effects. <i>Chemistry - A European Journal</i> , 2014 , 20, 17214-21	4.8	13
80	Protonation-Triggered Carbon-Chain Elongation in Geranyl Pyrophosphate Synthase (GPPS). <i>ACS Catalysis</i> , 2015 , 5, 4466-4478	13.1	12
79	Redox-active gold nanoclusters immobilized ZnO nanorod electrodes for electrochemical sensing applications. <i>RSC Advances</i> , 2014 , 4, 10766-10769	3.7	12
78	In silico identification of EGFR-T790M inhibitors with novel scaffolds: start with extraction of common features. <i>Drug Design, Development and Therapy</i> , 2013 , 7, 789-839	4.4	12
77	The contributions of through-bond interactions to the singlet-triplet energy difference in 1,3-dehydrobenzene. <i>Journal of Physical Chemistry A</i> , 2009 , 113, 10351-8	2.8	12
76	Intramolecular Electron Transfer: Computational Study Based on the Orbital Deletion Procedure (ODP). <i>Current Organic Chemistry</i> , 2006 , 10, 779-790	1.7	12
75	Attraction between electrophilic caps: A counterintuitive case of noncovalent interactions. <i>Journal of Computational Chemistry</i> , 2019 , 40, 1015-1022	3.5	12
74	Tetrel bonding interaction: an analysis with the block-localized wavefunction (BLW) approach. <i>Physical Chemistry Chemical Physics</i> , 2019 , 21, 11776-11784	3.6	11

73	Amino Acid Chiral Selection Via Weak Interactions in Stellar Environments: Implications for the Origin of Life. <i>Scientific Reports</i> , 2018 , 8, 8833	4.9	11
72	A full picture of enzymatic catalysis by hydroxynitrile lyases from <i>Hevea brasiliensis</i> : protonation dependent reaction steps and residue-gated movement of the substrate and the product. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 26864-75	3.6	11
71	A Direct Proof of the Resonance-Impaired Hydrogen Bond (RIHB) Concept. <i>Chemistry - A European Journal</i> , 2018 , 24, 1053-1056	4.8	11
70	Study of proton-coupled electron transfer (PCET) with four explicit diabatic states at the ab initio level. <i>Computational and Theoretical Chemistry</i> , 2017 , 1116, 50-58	2	10
69	Halogen Bonds in Novel Polyhalogen Monoanions. <i>Chemistry - A European Journal</i> , 2017 , 23, 8719-8728	4.8	10
68	Proton-Shuttle-Assisted Heterolytic Carbon-Carbon Bond Cleavage and Formation. <i>ACS Catalysis</i> , 2015 , 5, 2805-2813	13.1	10
67	Origin of the SN2 Benzylic Effect: Contributions by π Delocalization and Field/Inductive Effects. <i>European Journal of Organic Chemistry</i> , 2012 , 2012, 5991-6004	3.2	10
66	Steric and electronic effects on the heterolytic H ₂ -splitting by phosphine-boranes R ₃ B/PR ₂ 3 (R = C ₆ F ₅ , Ph; R ₂ = C ₆ H ₂ Me ₃ , tBu, Ph, C ₆ F ₅ , Me, H): A computational study. <i>International Journal of Quantum Chemistry</i> , 2011 , 111, 3761-3775	2.1	10
65	Theoretical analysis of the internal rotation in aminoborane and borylphosphine. <i>Theoretical Chemistry Accounts</i> , 1999 , 101, 311-318	1.9	10
64	The generalized block-localized wavefunction method: a case study on the conformational preference and C-O rotational barrier of formic acid. <i>Journal of Chemical Physics</i> , 2012 , 136, 144315	3.9	9
63	Correlation between biological activity and binding energy in systems of integrin with cyclic RGD-containing binders: a QM/MM molecular dynamics study. <i>Journal of Molecular Modeling</i> , 2012 , 18, 4917-27	2	9
62	Role of Charge Transfer in Halogen Bonding. <i>Journal of Physical Chemistry A</i> , 2021 , 125, 2944-2953	2.8	9
61	Combined QM(DFT)/MM molecular dynamics simulations of the deamination of cytosine by yeast cytosine deaminase (yCD). <i>Journal of Computational Chemistry</i> , 2016 , 37, 1163-74	3.5	9
60	Adjacent Lone Pair (ALP) Effect: A Computational Approach for Its Origin. <i>Chemistry - A European Journal</i> , 2016 , 22, 7415-21	4.8	9
59	Deprotonation of methyl-substituted, five-membered aromatic molecules: a surprising case of mixed conjugation, rehybridization, and induction contributions. <i>Organic Letters</i> , 2014 , 16, 4680-3	6.2	8
58	Valence bond description for the ground state and several low-lying excited states of LiH. <i>Computational and Theoretical Chemistry</i> , 1993 , 283, 237-249		8
57	Induction, Resonance, and Secondary Electrostatic Interaction on Hydrogen Bonding in the Association of Amides and Imides. <i>Journal of Organic Chemistry</i> , 2018 , 83, 13446-13453	4.2	8
56	Ab initio QM/MM simulations with a molecular orbital-valence bond (MOVB) method: application to an SN2 reaction in water 2000 , 21, 1458		8

55	Agostic Interactions in Early Transition-Metal Complexes: Roles of Hyperconjugation, Dispersion, and Steric Effect. <i>Chemistry - A European Journal</i> , 2019 , 25, 6591-6599	4.8	7
54	How Resonance Modulates Multiple Hydrogen Bonding in Self-Assembled Systems. <i>Journal of Organic Chemistry</i> , 2019 , 84, 14805-14815	4.2	7
53	On the large Hyperconjugation in alkanes and alkenes. <i>Journal of Molecular Modeling</i> , 2014 , 20, 2228	2	7
52	Direct evaluation of the hyperconjugative interactions in 1,1,1-trihaloethane (CH ₃ CX ₃ , X = F, Cl, and Br). <i>Journal of Physical Chemistry A</i> , 2014 , 118, 5743-7	2.8	7
51	Broad substrate specificity and catalytic mechanism of <i>Pseudomonas stutzeri</i> L-rhamnose isomerase: insights from QM/MM molecular dynamics simulations. <i>Journal of Physical Chemistry A</i> , 2009 , 113, 11595-603	2.8	7
50	Why Do Enolate Anions Favor O-Alkylation over C-Alkylation in the Gas Phase? The Roles of Resonance and Inductive Effects in the Gas-Phase S _N 2 Reaction between the Acetaldehyde Enolate Anion and Methyl Fluoride. <i>Journal of Organic Chemistry</i> , 2016 , 81, 3711-9	4.2	7
49	Product release mechanism and the complete enzyme catalysis cycle in yeast cytosine deaminase (yCD): A computational study. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2017 , 1865, 1020-1029	4	6
48	Classical Electrostatic Interaction Is the Origin for Blue-Shifting Halogen Bonds. <i>Inorganic Chemistry</i> , 2019 , 58, 8577-8586	5.1	6
47	Drastic Deprotonation Reactivity Difference of 3- and 5-Alkylpyrazole Isomers, Their I ₂ -Catalyzed Thermal Isomerization, and Telescoping Synthesis of 3,5-Dialkylpyrazoles: The "Adjacent Lone Pair Effect" Demystified. <i>Journal of Organic Chemistry</i> , 2016 , 81, 1718-22	4.2	6
46	Tautomerism of protonated imidazoles: A perspective from ab initio valence bond theory. <i>Tetrahedron</i> , 2018 , 74, 4791-4798	2.4	6
45	Metal-binding studies of linear rigid-axle [2]pseudorotaxanes with in situ generated anionic metal halide complexes. <i>CrystEngComm</i> , 2014 , 16, 7320	3.3	6
44	Doping and Undoping of OH ⁺ during Redox Processes of Poly(vinyl ferrocene). <i>Journal of the Electrochemical Society</i> , 2005 , 152, E94	3.9	6
43	Intramolecular multi-bond strain: the unrecognized side of the dichotomy of conjugated systems. <i>Chemical Science</i> , 2016 , 7, 5872-5878	9.4	6
42	Planar Tetracoordinate Silicon in Organic Molecules As Carbenoid-Type Amphoteric Centers: A Computational Study. <i>Chemistry - A European Journal</i> , 2021 , 27, 1402-1409	4.8	6
41	Astrophysical Sites that Can Produce Enantiomeric Amino Acids. <i>Symmetry</i> , 2019 , 11, 23	2.7	5
40	Why is sulfuric acid a much stronger acid than ethanol? Determination of the contributions by inductive/field effects and electron-delocalization effects. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 138-44	3.6	5
39	B-Heterocyclic Carbene Arising from Charge Shift: A Computational Verification. <i>Chemistry - A European Journal</i> , 2018 , 24, 10216	4.8	5
38	A simple preparation of 2,3,4,6-tetra-o-acyl-gluco-, galacto- and mannopyranoses and relevant theoretical study. <i>Molecules</i> , 2010 , 15, 374-84	4.8	5

37	The correlation between theoretical and experimentally estimated resonance energies. <i>Computational and Theoretical Chemistry</i> , 1995 , 357, 171-176		5
36	Role of Intramolecular Electron Delocalization in the C-X Bond Strength in CHX (n = 0-4, X = F, Cl, CN, OCH). <i>Journal of Physical Chemistry A</i> , 2018 , 122, 7716-7722	2.8	5
35	Bonding and Diels-Alder reactions of substituted 2-borabicyclo(1.1.0)but-1(3)-enes: a theoretical study. <i>Theoretical Chemistry Accounts</i> , 2019 , 138, 1	1.9	4
34	A strong dependence of the CH internal rotation barrier on conformation in thioacetic acid: Microwave measurements and an energy decomposition analysis. <i>Journal of Chemical Physics</i> , 2019 , 150, 134302	3.9	4
33	COMPUTATIONAL CHARACTERIZATION OF THE ELUSIVE C-CLUSTER OF CARBON MONOXIDE DEHYDROGENASE. <i>Journal of Theoretical and Computational Chemistry</i> , 2008 , 07, 473-484	1.8	4
32	Deprotonation Mechanism of NH ₄ ⁺ in the Escherichia coli Ammonium Transporter AmtB: Insight from QM and QM/MM Calculations. <i>Angewandte Chemie</i> , 2007 , 119, 6935-6939	3.6	4
31	Paired-permanent approach for VB theory (II). <i>Science in China Series B: Chemistry</i> , 2001 , 44, 561-570		4
30	Why N ₂ O ₂ is cis while (CHO) ₂ is trans: MO and VB studies. <i>International Journal of Quantum Chemistry</i> , 1995 , 56, 19-26	2.1	4
29	Resonance-Assisted but Antielectrostatic Intramolecular Au-H-O Hydrogen Bonding in Gold(I) Complexes: A Computational Verification. <i>Inorganic Chemistry</i> , 2021 , 60, 460-467	5.1	4
28	Effects of a remote binding partner on the electric field and electric field gradient at an atom in a weakly bound trimer. <i>Journal of Chemical Physics</i> , 2013 , 139, 034320	3.9	3
27	Model to study delocalization. <i>Journal of the Chemical Society, Faraday Transactions</i> , 1995 , 91, 241		3
26	Valence bond studies of N ₂ O ₄ . <i>Computational and Theoretical Chemistry</i> , 1994 , 315, 173-178		3
25	Resonance-assisted/impaired anion-π interaction: towards the design of novel anion receptors.. <i>RSC Advances</i> , 2020 , 10, 36181-36191	3.7	3
24	The Transition-Metal-Like Behavior of B ₂ (NHC) ₂ in the Activation of CO: HOMO-LUMO Swap Without Photoinduction. <i>Angewandte Chemie</i> , 2018 , 130, 13260-13265	3.6	2
23	Orbital deletion procedure and its applications. <i>Science in China Series B: Chemistry</i> , 1999 , 42, 253-260		2
22	Performance of the VBSCF method for pericyclic and σ bond shift reactions. <i>Journal of Computational Chemistry</i> , 2019 , 40, 1123-1129	3.5	2
21	Hydrogen and Halogen Bonding in Homogeneous External Electric Fields: Modulating the Bond Strengths. <i>Chemistry - A European Journal</i> , 2021 , 27, 14042-14050	4.8	2
20	Electride-Sponsored Radical-Controlled CO Reduction to Organic Acids: A Computational Design. <i>Chemistry - A European Journal</i> , 2020 , 26, 6234-6239	4.8	1

19	Applications of graphic method to C20, C60, and achiral single-wall nanotubes. <i>International Journal of Quantum Chemistry</i> , 2004 , 98, 51-58	2.1	1
18	Inter-anion chalcogen bonds: Are they anti-electrostatic in nature?. <i>Journal of Chemical Physics</i> , 2021 , 155, 234302	3.9	1
17	Classical Electrostatics Remains the Driving Force for Interanion Hydrogen and Halogen Bonding. <i>Journal of Physical Chemistry A</i> , 2021 , 125, 10428-10438	2.8	1
16	Mechanisms for the deamination reaction of 8-oxoguanine catalyzed by 8-oxoguanine deaminase: A combined QM/MM molecular dynamics study. <i>Journal of Theoretical and Computational Chemistry</i> , 2016 , 15, 1650066	1.8	1
15	Rational design of porous organic molecules (POMs) based on B-heterocyclic carbenes. <i>Molecular Systems Design and Engineering</i> , 2021 , 6, 132-138	4.6	1
14	Anti-Electrostatic Main Group Metal-Metal Bonds That Activate CO. <i>Journal of Physical Chemistry Letters</i> , 2021 , 12, 7545-7552	6.4	1
13	Explaining the Variations in Isotopic Ratios in Meteoritic Amino Acids. <i>Astrobiology</i> , 2020 , 20, 964-976	3.7	0
12	Side-On versus End-On Binding Modes between Metal Cations and (NHC)AlAl(NHC). <i>Organometallics</i> , 2020 , 39, 3240-3249	3.8	0
11	Molecular magnetism in nanodomains of isorecticular MIL-88(Fe)-MOFs. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 21677-21689	3.6	0
10	Two Push-Pull Channels Enhance the Dinitrogen Activation by Borylene Compounds. <i>Chemistry - A European Journal</i> , 2020 , 26, 2520	4.8	
9	Adjacent Lone Pair (ALP) Effect: A Computational Approach for Its Origin. <i>Chemistry - A European Journal</i> , 2016 , 22, 7305-7305	4.8	
8	Reply to comment on the paper "An efficient Algorithm for Energy Gradients and Orbital Optimization in Valence Bond Theory". <i>Journal of Computational Chemistry</i> , 2012 , 33, 914-915	3.5	
7	A new theory for symmetry orbital and tensor (II). <i>Science in China Series B: Chemistry</i> , 1999 , 42, 34-42		
6	General method for symmetry orbitals and tensors in electronic structure calculations. <i>Journal of Computational Chemistry</i> , 1999 , 20, 305-321	3.5	
5	Probing the nature of hydrogen bonds in DNA base pairs	665-672	
4	Computational Study of CO Reduction Catalyzed by Iron(II) Complex at Different Spin States: Cooperativity of Hydrogen Bonding and Auxiliary Group Effect. <i>ACS Omega</i> , 2021 , 6, 31971-31981	3.9	
3	Transport Mechanism in the Escherichia coli Ammonia Channel AmtB: A Computational Study. <i>Challenges and Advances in Computational Chemistry and Physics</i> , 2010 , 397-429	0.7	
2	Metalloradical complex Co-CBh3 catalyzes the CO reduction in gas phase: a theoretical study. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 1392-1400	3.6	

1 The Block-Localized Wavefunction (BLW) Method and Its Applications **2022**,