Weizhou Wang

List of Publications by Year
in descending order

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		159585	149698
96	3,407	30	56
papers	citations	h-index	g-index

99	99	99	3606
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Chalcogen Bond: A Sister Noncovalent Bond to Halogen Bond. Journal of Physical Chemistry A, 2009, 113, 8132-8135.	2.5	489
2	Ïƒ-Hole Bond vs Ï€-Hole Bond: A Comparison Based on Halogen Bond. Chemical Reviews, 2016, 116, 5072-5104.	47.7	487
3	Theoretical Study on the Blueshifting Halogen Bond. Journal of Physical Chemistry A, 2004, 108, 1799-1805.	2.5	186
4	Origin of the Xâ”Hal (Hal = Cl, Br) Bond-Length Change in the Halogen-Bonded Complexes. Journal of Physical Chemistry A, 2008, 112, 4114-4119.	2.5	115
5	Halogen bonding in room-temperature phosphorescent materials. Coordination Chemistry Reviews, 2020, 404, 213107.	18.8	106
6	Noncovalent Ï€â‹…â‹…â‹…Ï€ interaction between graphene and aromatic molecule: Structure, energy, and nature. Journal of Chemical Physics, 2014, 140, 094302.	3.0	83
7	Sub-5 nm Monolayer Arsenene and Antimonene Transistors. ACS Applied Materials & Interfaces, 2018, 10, 22363-22371.	8.0	77
8	Symmetrical Bifurcated Halogen Bond: Design and Synthesis. Crystal Growth and Design, 2011, 11, 3622-3628.	3.0	74
9	Structures, mobility and electronic properties of point defects in arsenene, antimonene and an antimony arsenide alloy. Journal of Materials Chemistry C, 2017, 5, 4159-4166.	5.5	72
10	Synthesis, Structure, and Photophysical Properties of Two Four-Coordinate Cu^Iâ€“NHC Complexes with Efficient Delayed Fluorescence. Inorganic Chemistry, 2016, 55, 2157-2164.	4.0	70
11	Cï£¿H Stretching Vibrational Shift of Benzene Dimer: Consistency of Experiment and Calculation. ChemPhysChem, 2007, 8, 2107-2111.	2.1	67
12	Theoretical Study on the Complexes of Benzene with Isoelectronic Nitrogenâ€Containing Heterocycles. ChemPhysChem, 2008, 9, 1003-1009.	2.1	64
13	Syntheses, Structures, Luminescence, and Magnetic Properties of One-dimensional Lanthanide Coordination Polymers with a Rigid 2,2â€²-Bipyridine-3,3â€²,6,6â€²-tetracarboxylic Acid Ligand. Inorganic Chemistry, 2012, 51, 2170-2177.	4.0	64
14	Phosphorescent Ï€-HoleÂ·Â·Â·Ï€ Bonding Cocrystals of Pyrene with Halo-perfluorobenzenes (F, Cl, Br, I). Crystal Growth and Design, 2015, 15, 4938-4945.	3.0	62
15	Some theoretical observations on the 1:1 glycine zwitterionâ€“water complex. Computational and Theoretical Chemistry, 2003, 626, 127-132.	1.5	55
16	Halogen Bond Involving Hypervalent Halogen: CSD Search and Theoretical Study. Journal of Physical Chemistry A, 2011, 115, 9294-9299.	2.5	55
17	On the Difference of the Properties between the Blue-Shifting Halogen Bond and the Blue-Shifting Hydrogen Bond. Journal of Physical Chemistry A, 2010, 114, 7257-7260.	2.5	47
18	Theoretical Study of 1,3,4,6,7,9,9b-Heptaazaphenalene and Its Ten Derivatives. Journal of Physical Chemistry A, 2004, 108, 97-106.	2.5	46

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19	Prolylprolinolâ€Catalyzed Asymmetric Michael Addition of Aliphatic Aldehydes to Nitroalkenes. Advanced Synthesis and Catalysis, 2010, 352, 644-650.	4.3	45
20	The Nature of the Noncovalent Interactions between Benzene and C₆₀ Fullerene. Journal of Physical Chemistry A, 2016, 120, 5766-5772.	2.5	41
21	Theoretical Study on the Bromomethaneâ^'Water 1:2 Complexes. Journal of Physical Chemistry A, 2005, 109, 8035-8040.	2.5	40
22	Interactions between haloperfluorobenzenes and fluoranthene in luminescent cocrystals from Ï€-holeâ‹¯Ï€ to Ïƒ-holeâ‹¯Ï€ bonds. CrystEngComm, 2017, 19, 5058-5067.	2.6	40
23	A Twoâ€Step Sequence to Ethyl Î±â€Fluorocyclopropanecarboxylates Through MIRC Reaction of Ethyl Dichloroacetate and Highly Regioselective Fluorination. European Journal of Organic Chemistry, 2013, 2013, 7372-7381.	2.4	39
24	Performance Limit of Monolayer WSe₂ Transistors; Significantly Outperform Their MoS₂ Counterpart. ACS Applied Materials & Interfaces, 2020, 12, 20633-20644.	8.0	39
25	Novel pyrene derivatives: Synthesis, properties and highly efficient non-doped deep-blue electroluminescent device. Dyes and Pigments, 2012, 92, 732-736.	3.7	35
26	The 1:1 glycineâ€“water complex: some theoretical observations. Computational and Theoretical Chemistry, 2002, 618, 235-244.	1.5	34
27	Structural Competition between Halogen Bonds and Loneâ€Pairâ‹…â‹…â‹…Ï€ Interactions in Solution. ChemPhysChem, 2012, 13, 1411-1414.	2.1	34
28	Communication: Competition between Ï€â‹¯Ï€ interaction and halogen bond in solution: A combined 13C NMR and density functional theory study. Journal of Chemical Physics, 2012, 136, 141101.	3.0	33
29	On the correlation between bond-length change and vibrational frequency shift in halogen-bonded complexes. Journal of Chemical Physics, 2011, 134, 224303.	3.0	32
30	Performance limit of monolayer MoSi₂N₄ transistors. Journal of Materials Chemistry C, 2021, 9, 14683-14698.	5.5	32
31	A new class of halogen bonds that avoids the Ïƒ-hole. Chemical Physics Letters, 2012, 532, 27-30.	2.6	31
32	Intermolecular and very strong intramolecular Câ€“Seâ‹¯O/N chalcogen bonds in nitrophenyl selenocyanate crystals. Physical Chemistry Chemical Physics, 2018, 20, 5227-5234.	2.8	28
33	Hyperconjugation versus intramolecular hydrogen bond: origin of the conformational preference of gaseous glycine. Chemical Physics Letters, 2003, 370, 147-153.	2.6	26
34	Determination of cis-diol-containing flavonoids in real samples using boronate affinity quantum dots coated with imprinted silica based on controllable oriented surface imprinting approach. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2020, 227, 117542.	3.9	26
35	Effects of functional groups for CO2 capture using metal organic frameworks. Frontiers of Chemical Science and Engineering, 2021, 15, 437-449.	4.4	26
36	The benzeneâ‹¯naphthalene complex: A more challenging system than the benzene dimer for newly developed computational methods. Journal of Chemical Physics, 2015, 143, 114312.	3.0	24

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37	Solubility Measurement and the Correlation of 1-Naphthaleneacetic Acid in Pure and Methanol + Water Binary Solvents from T = (278.25 to 323.55) K. Journal of Chemical & Engineering Data, 2017, 62, 1292-1301.	1.9	24
38	Highly accurate benchmark calculations of the interaction energies in the complexes C₆H₆Â·Â·Â·C₆X₆ (Xâ€‰=â€‰F, Cl, Br, and I). International Journal of Quantum Chemistry, 2017, 117, e25345.	2.0	24
39	Zinc 2-N-methyl N-confused porphyrin: an efficient catalyst for the conversion of CO₂ into cyclic carbonates. Catalysis Science and Technology, 2019, 9, 4255-4261.	4.1	24
40	Benchmark calculations of the adsorption of aromatic molecules on graphene. Journal of Computational Chemistry, 2015, 36, 1763-1771.	3.3	23
41	The Ï€Â·Â·Â·Ï€ Stacking Interactions between Homogeneous Dimers of C6FxI(6â€“x) (x = 0, 1, 2, 3, 4, and 5): A Comparative Study with the Halogen Bond. Journal of Physical Chemistry A, 2012, 116, 12486-12491.	2.5	21
42	Tetrel bonding on graphene. Computational and Theoretical Chemistry, 2019, 1147, 8-12.	2.5	21
43	Structural competition between Ï€â‹¯Ï€ interactions and halogen bonds: a crystallographic study. CrystEngComm, 2013, 15, 769-774.	2.6	20
44	Substituent effects in the Ï€â‹¯Ï€ interaction between graphene and benzene: An indication for the noncovalent functionalization of graphene. Computational and Theoretical Chemistry, 2014, 1046, 64-69.	2.5	19
45	Hydrogen bond and halogen bond inside the carbon nanotube. Journal of Chemical Physics, 2011, 134, 054317.	3.0	18
46	Effect of carboxylic acid on micelles of a neutral amphiphilic dendro-calix[4]arene. Organic and Biomolecular Chemistry, 2012, 10, 729-735.	2.8	18
47	Prediction of a Family of Cage-shaped Boric Acid Clusters. Journal of Physical Chemistry B, 2005, 109, 8562-8564.	2.6	17
48	Metalâ€“Organic Frameworks Grafted by Univariate and Multivariate Heterocycles for Enhancing CO2 Capture: A Molecular Simulation Study. Industrial & Engineering Chemistry Research, 2019, 58, 2195-2205.	3.7	17
49	Self-curl and self-assembly of boric acid clusters. Chemical Physics Letters, 2005, 405, 425-428.	2.6	16
50	The bifurcate chalcogen bond: Some theoretical observations. Computational and Theoretical Chemistry, 2009, 916, 135-138.	1.5	16
51	The Existence of a Nâ†’C Dative Bond in the C₆₀â€“Piperidine Complex. Angewandte Chemie - International Edition, 2021, 60, 1942-1950.	13.8	15
52	Unconventional interaction in N(P)-related systems. Chemical Physics Letters, 2005, 411, 439-444.	2.6	14
53	Pseudo-Bifurcated Chalcogen Bond in Crystal Engineering. Crystals, 2018, 8, 163.	2.2	14
54	The Ïƒ-holeâ‹¯Ïƒ-hole stacking interaction: An unrecognized type of noncovalent interaction. Journal of Chemical Physics, 2020, 153, 214302.	3.0	14

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55	Determination and Correlation of Solubilities of 2-Isopropylthioxanthone (ITX) in Seven Different Solvents from (299.15 to 329.85) K. Journal of Chemical & Engineering Data, 2015, 60, 941-946.	1.9	13
56	Highly efficient undoped deep-blue electroluminescent device based on a novel pyrene derivative. Solid-State Electronics, 2010, 54, 524-526.	1.4	12
57	ASSESSMENT OF THE PERFORMANCE OF THE M05-CLASS AND M06-CLASS FUNCTIONALS FOR THE STRUCTURE AND GEOMETRY OF THE HYDROGEN-BONDED AND HALOGEN-BONDED COMPLEXES. Journal of Theoretical and Computational Chemistry, 2012, 11, 1165-1173.	1.8	12
58	Unexpected strong stacking interactions between the homogeneous dimers of C6FxI(6â¯x) (x=0, 1, 2, 3, 4) Tj ETQq0 0 0 rgBT /Overlock	2.5	12
59	Improper halogen bond in the crystal structure. CrystEngComm, 2013, 15, 3093.	2.6	12
60	The nature of the noncovalent interactions between fullerene C60 and aromatic hydrocarbons. Computational and Theoretical Chemistry, 2017, 1122, 34-39.	2.5	12
61	Ab Initio Study of Gas Adsorption in Metalâ€“Organic Frameworks Modified by Lithium: The Significant Role of Li-Containing Functional Groups. Journal of Physical Chemistry C, 2018, 122, 18395-18404.	3.1	11
62	Toward a less costly but accurate calculation of the CCSD(T)/CBS noncovalent interaction energy. Journal of Computational Chemistry, 2020, 41, 1252-1260.	3.3	11
63	Application of Berlin's Theorem to Bond-Length Changes in Isolated Molecules and Red- and Blue-Shifting H-Bonded Clusters. Collection of Czechoslovak Chemical Communications, 2008, 73, 862-872.	1.0	10
64	A theoretical study of the atomic hydrogen binding on small Ag Cu (n+mâ©½ 5) clusters. Computational and Theoretical Chemistry, 2010, 959, 75-79.	1.5	10
65	The nature of the Iâ‹¯I interactions and a comparative study with the nature of the Ï€â‹¯Ï€ interactions. Computational and Theoretical Chemistry, 2014, 1030, 1-8.	2.5	10
66	An ab initio study of Pâ€“Hâ‹¯P interactions using the PH3â‹¯PH3 model complex. Computational and Theoretical Chemistry, 2003, 625, 25-30.	1.5	9
67	Method-dependent relative stability of hydrogen bonded and Ï€â€“Ï€ stacked structures of the formic acid tetramer. Chemical Physics Letters, 2005, 402, 54-56.	2.6	9
68	Strength order and nature of the Ï€-hole bond of cyanuric chloride and 1,3,5-triazine with halide. Physical Chemistry Chemical Physics, 2015, 17, 20636-20646.	2.8	9
69	On the nature of the stacking interaction between two graphene layers. Chemical Physics Letters, 2015, 620, 46-49.	2.6	9
70	Structure-directed formation of the dative/covalent bonds in complexes with C₇₀â‹¯piperidine. Physical Chemistry Chemical Physics, 2021, 23, 4365-4375.	2.8	9
71	The nature of the bond-length change upon molecule complexation. Collection of Czechoslovak Chemical Communications, 2010, 75, 243-256.	1.0	7
72	Theoretical rationale for the role of the strong halogen bond in the design and synthesis of organic semiconductor materials. Computational and Theoretical Chemistry, 2021, 1194, 113074.	2.5	7

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73	Computational screening of heterocycle decorations in metal-organic frameworks for efficient C2/C1 adsorption and separation. Fuel, 2020, 279, 118431.	6.4	6
74	Addition Reaction between Piperidine and C₆₀ to Form 1,4-Disubstituted C₆₀ Proceeds through van der Waals and Dative Bond Complexes: Theoretical and Experimental Study. Journal of the American Chemical Society, 2021, 143, 10930-10939.	13.7	6
75	A Robust Supramolecular Heterosynthon Assembled by a Hydrogen Bond and a Chalcogen Bond. Crystals, 2021, 11, 1309.	2.2	6
76	Noncovalent Interactions between 1,3,5-Trifluoro-2,4,6-triiodobenzene and a Series of 1,10-Phenanthroline Derivatives: A Combined Theoretical and Experimental Study. Crystals, 2019, 9, 140.	2.2	5
77	Accurate calculations of the noncovalent systems with flat potential energy surfaces: Naphthalene dimer and azulene dimer. Computational and Theoretical Chemistry, 2017, 1112, 52-60.	2.5	4
78	Weakening and Leveling Effect of Solvent Polarity on Halogen Bond Strength of Diiodoperfluoroalkane with Halide. Journal of Solution Chemistry, 2017, 46, 1092-1103.	1.2	4
79	Supramolecular Interactions of Fullerene C₆₀ with 1,3,5â€Trifluoroâ€2,4,6â€triiodobenzene: A Combined Theoretical and Experimental Study. ChemPlusChem, 2018, 83, 470-477.	2.8	4
80	Unexpected Sandwiched-Layer Structure of the Cocrystal Formed by Hexamethylbenzene with 1,3-Diiodotetrafluorobenzene: A Combined Theoretical and Crystallographic Study. Crystals, 2020, 10, 379.	2.2	4
81	The Existence of a Nâ†'C Dative Bond in the C 60 â€“Piperidine Complex. Angewandte Chemie, 2021, 133, 1970-1978.	2.0	4
82	Effect of CP-corrected gradient optimization on the water-radical (anion) dimmer hypersurface. Computational and Theoretical Chemistry, 2003, 631, 171-180.	1.5	3
83	Thioformyl chloride dimer: An excellent model system for the assessment of new computational methods. Computational and Theoretical Chemistry, 2012, 983, 83-87.	2.5	2
84	Structural study on four co-crystals of N-containing heteroaromatics with iodofluorobenzene. Chemical Research in Chinese Universities, 2015, 31, 84-90.	2.6	2
85	Crystal structure of halogen-bonded 2-chloro-1,10-phenanthrolineâ€"1,4-diiodotetrafluorobenzene (2/1), C₃₀H₁₄Cl₂F₄I₂N₄. Zeitschrift Fur Kristallographie - New Crystal Structures, 2017, 232, 323-324.	0.3	2
86	Determination and Correlation of Solubilities of 1,3,5-Trifluoro-2,4,6-triiodobenzene in Different Solvents from 289.25 to 332.15 K. Journal of Chemical & Engineering Data, 2019, 64, 4306-4313.	1.9	2
87	Halogen bonds in the crystal structure of 4,3:5,4-terpyridine â€“ 1,4-diiodotetrafluorobenzene (1/1), C₂₁H₁₁F₄I₂N₃. Zeitschrift Fur Kristallographie - New Crystal Structures, 2019, 234, 935-937.	0.3	2
88	The Face-to-Face Ïƒ-Holeâ‹¯Ïƒ-Hole Stacking Interactions: Structures, Energies, and Nature. Crystals, 2021, 11, 877.	2.2	2
89	The Bifurcated Ïƒ-HoleÂ·Â·Â·Ïƒ-Hole Stacking Interactions. Molecules, 2022, 27, 1252.	3.8	2
90	SN2-like Reaction in Hydrogen-Bonded Complexes:â€‰ A Theoretical Study. Journal of Physical Chemistry A, 2005, 109, 9353-9355.	2.5	1

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91	Halogen bonds and Ï€â€“Ï€ interactions in the crystal structure of 1,3,5-trifluoro-2,4,6-triiodobenzeneâ€“N,N-dimethylformamide (1/1), C₉H₇F₃I₃NO. Zeitschrift Fur Kristallographie - New Crystal Structures, 2017, 232, 937-938.	0.3	1
92	Halogen bonds in the crystal structure of 5-bromo-3,4â€²-bipyridine â€“ 1,4-diiodotetrafluorobenzene (2/1), C₂₆H₁₄Br₂F₄I₂N₄. Zeitschrift Fur Kristallographie - New Crystal Structures, 2019, 234, 1187-1188.	0.3	1
93	Origin of the unexpected attractive interactions between positive Ïƒ-holes and positive Ï€-lumps. Computational and Theoretical Chemistry, 2022, 1213, 113736.	2.5	1
94	Crystal structure of 2,9-dibromo-1,10-phenanthroline, C12H6Br2N2. Zeitschrift Fur Kristallographie - New Crystal Structures, 2017, 232, 441-442.	0.3	0
95	Halogen bonds in the crystal structure of 4,3â€²:5â€²,4â€³-terpyridine â€” 1,3-diiodotetrafluorobenzene (1/1), C₂₁H₁₁F₄I₂N₃. Zeitschrift Fur Kristallographie - New Crystal Structures, 2022, 237, 161-163.	0.3	0
96	Chalcogen bonds in the crystal structure of 4,7-dibromo-2,1,3-benzoselenadiazole, C₆H₂Br₂N₂Se. Zeitschrift Fur Kristallographie - New Crystal Structures, 2022, 237, 169-171.	0.3	0