

# Jian-Hua Hou

## List of Publications by Year in descending order

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43  
papers

850  
citations

623734

14  
h-index

501196

28  
g-index

45  
all docs

45  
docs citations

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times ranked

1065  
citing authors

#	ARTICLE	IF	CITATIONS
1	Exploring the anchoring effect of surface functionalized 2D electrides Ca <sub>2</sub> N and Y <sub>2</sub> C in lithium sulfur battery: First principle study. Applied Surface Science, 2022, 591, 153185.	6.1	6
2	2D phosphorus carbide as promising anode materials for Na/K-ion batteries from first-principles study. Journal of Molecular Modeling, 2022, 28, 152.	1.8	2
3	Prediction of the Be <sub>2</sub> B <sub>2</sub> monolayer: an ultrahigh capacity anode material for Li-ion and Na-ion batteries. Physical Chemistry Chemical Physics, 2022, 24, 14953-14963.	2.8	4
4	First-principle investigation of CO, CH <sub>4</sub> , and CO <sub>2</sub> adsorption on Cr-doped graphene-like hexagonal borophene. Journal of Molecular Modeling, 2022, 28, .	1.8	6
5	A novel two-dimensional main group metal organic framework Ga <sub>3</sub> C <sub>6</sub> N <sub>6</sub> as a promising anode material for Li/Na-Ion batteries. Applied Surface Science, 2022, 599, 153958.	6.1	6
6	The electronic structures and nonlinear optical properties of Alkali and Alkali earth metal atoms doped C <sub>6</sub> H <sub>6</sub> Cl <sub>6</sub> : A density functional theoretical study. Journal of Molecular Graphics and Modelling, 2022, 116, 108263.	2.4	0
7	Oxygen-substituted borophene as a potential anode material for Li/Na-ion batteries: a first principles study. Physical Chemistry Chemical Physics, 2021, 23, 9270-9279.	2.8	15
8	A first-principle study of FeB <sub>6</sub> monolayer as a potential anode material for Li-ion and Na-ion batteries. Computational Materials Science, 2021, 190, 110273.	3.0	17
9	Hexagonal borophene sandwiched between blue phosphorenes: A novel bonding heterostructure as an anchoring material for lithium-sulfur batteries. Applied Surface Science, 2021, 545, 148770.	6.1	11
10	Hydrogenated borophene/blue phosphorene: A novel two-dimensional donor-acceptor heterostructure with shrunken interlayer distance as a potential anode material for Li/Na ion batteries. Journal of Physics and Chemistry of Solids, 2021, 155, 110108.	4.0	8
11	Fe@B <sub>6</sub> H <sub>6</sub> aggregates: from simple building blocks to graphene analogue. Journal of Molecular Modeling, 2021, 27, 273.	1.8	0
12	Design a novel type of excess electron compounds with large nonlinear optical responses using group 12 elements (Zn, Cd and Hg). Journal of Molecular Graphics and Modelling, 2021, 109, 108003.	2.4	4
13	Cyclohexane-cored dendritic host materials with high triplet energy for efficient solution-processed blue thermally activated delayed fluorescence OLEDs. Dyes and Pigments, 2020, 174, 108097.	3.7	9
14	Graphene-like C <sub>3</sub> N/blue phosphorene heterostructure as a potential anode material for Li/Na-ion batteries: A first principles study. Solid State Ionics, 2020, 345, 115160.	2.7	19
15	Two-dimensional MnC as a potential anode material for Na/K-ion batteries: a theoretical study. Journal of Molecular Modeling, 2020, 26, 66.	1.8	15
16	Graphene encapsulated metallic state Ce <sub>2</sub> Sn <sub>2</sub> O <sub>7</sub> as a novel anode material for superior lithium-ion batteries and capacitors. Journal of Materials Chemistry A, 2020, 8, 5517-5524.	10.3	31
17	Effect of ball-milling time and Pd addition on electrochemical hydrogen storage performance of Co <sub>2</sub> B alloy. Solid State Sciences, 2020, 103, 106184.	3.2	14
18	2D Si <sub>3</sub> N as a Promising Anode Material for Li/Na-Ion Batteries from First-Principles Study. Journal of Electronic Materials, 2020, 49, 4180-4185.	2.2	16

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19	Two-dimensional Si <sub>3</sub> C: a promising high-capacity anode material for sodium-ion batteries. <i>Theoretical Chemistry Accounts</i> , 2020, 139, 1.	1.4	4
20	A First-Principles Study of Boron-Doped BC <sub>2</sub> N Sheet as Potential Anode Material for Li/Na-Ion Batteries. <i>ChemElectroChem</i> , 2019, 6, 3797-3805.	3.4	8
21	Two-dimensional Janus MoSSe as a potential anode material for Na/K-ion batteries: A theoretical study. <i>Chemical Physics Letters</i> , 2019, 735, 136777.	2.6	15
22	Dendritic host materials with non-conjugated adamantane cores for efficient solution-processed blue thermally activated delayed fluorescence OLEDs. <i>Journal of Materials Chemistry C</i> , 2019, 7, 11845-11850.	5.5	23
23	Piezo-phototronic effect for enhanced sensitivity and response range of ZnO thin film flexible UV photodetectors. <i>Journal of Applied Physics</i> , 2019, 125, .	2.5	28
24	A theoretical study of alkaline-earthides Li(NH <sub>3</sub> ) <sub>4</sub> M (M = Be, Mg, Ca) with large first hyperpolarizability. <i>Journal of Molecular Modeling</i> , 2019, 25, 150.	1.8	24
25	Finding all-nonmetal transition-metal-like superatom and its magnetic building block. <i>International Journal of Quantum Chemistry</i> , 2018, 118, e25570.	2.0	2
26	Electric-field-induced nonlinear optical switches of all-metal spherical aromatic molecules with infrared transparency: a theoretical study. <i>New Journal of Chemistry</i> , 2018, 42, 1031-1036.	2.8	11
27	Hexagonal Boron Nitride/Blue Phosphorene Heterostructure as a Promising Anode Material for Li/Na-Ion Batteries. <i>Journal of Physical Chemistry C</i> , 2018, 122, 23329-23335.	3.1	52
28	Alkaline-earthide: A new class of excess electron compounds Li-C <sub>6</sub> H <sub>6</sub> F <sub>6</sub> -M (M = Be, Mg and Ca) with extremely large nonlinear optical responses. <i>Chemical Physics Letters</i> , 2018, 711, 55-59.	2.6	54
29	An artificial [FeFe]-hydrogenase mimic with organic chromophore-linked thiolate bridges for the photochemical production of hydrogen. <i>Chemical Papers</i> , 2017, 71, 617-625.	2.2	9
30	Efficient External Electric Field Manipulated Nonlinear Optical Switches of All-Metal Electride Molecules with Infrared Transparency: Nonbonding Electron Transfer Forms an Excess Electron Lone Pair. <i>Journal of Physical Chemistry C</i> , 2017, 121, 958-968.	3.1	53
31	Electric-field-induced spin switch of endohedral dodecahedrane heterodimers H@C <sub>20</sub> Hn@C <sub>20</sub> Hn@M (M = Cu, Ag and Au, n = 15, 18, and 19): a theoretical study. <i>Journal of Molecular Modeling</i> , 2017, 23, 242.	1.8	2
32	Theoretically predicted ferrocene analogues with triplet aromatic CB <sub>5</sub> H <sub>5</sub> ligands. <i>Journal of Molecular Modeling</i> , 2017, 23, 325.	1.8	0
33	Fe <sub>6</sub> Monolayers: The Graphene-like Material with Hypercoordinate Transition Metal. <i>Journal of the American Chemical Society</i> , 2016, 138, 5644-5651.	13.7	219
34	Two-Dimensional Y <sub>2</sub> C Electride: A Promising Anode Material for Na-Ion Batteries. <i>Journal of Physical Chemistry C</i> , 2016, 120, 18473-18478.	3.1	81
35	Planar tetracoordinate carbon species Cl <sub>3</sub> E with 12-valence-electrons. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 4589-4593.	2.8	20
36	Unconventional charge distribution in the planar wheel-type M <sub>6</sub> B <sub>6</sub> H <sub>6</sub> <sup>+</sup> (M = Mn, Fe and Co): central M with negative charges and peripheral boron ring with positive charges. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 9644-9650.	2.8	18

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37	Planar wheel-type $M\hat{A}^{\ominus}B_nH_n2\hat{a}^{\sim}/\hat{a}^{\sim}/O$ clusters (M = Cr, Mn and Fe for dianion, anion and neutral,) Tj ETQq1 1 0.784314 rgBT <sub>3</sub> /Overlock	3.6	3
38	Exploring the geometrical structures of $X\hat{A}^{\ominus}B_nH_nm$ [(X, m) = (B, +1), (C, +2) for n = 5; (X, m) = (Be, 0), (B,)] Tj ETQq0 0 0 rgBT <sub>3</sub> /Overlock	2.8	3
39	Room-temperature NH <sub>3</sub> sensors with high sensitivity and short response/recovery times. Science Bulletin, 2014, 59, 447-451.	1.7	12
40	Improving the contrast of top-emitting organic light-emitting diodes with alternating V <sub>2</sub> O <sub>5</sub> /Ag layers. Thin Solid Films, 2013, 534, 645-649.	1.8	3
41	Efficient top-emitting organic light-emitting diodes with Sm/Ag bilayer cathode. Thin Solid Films, 2011, 519, 3890-3892.	1.8	1
42	Tuning the emissive colour of top-emitting organic light-emitting diodes by using exterior multilayer films. Journal Physics D: Applied Physics, 2009, 42, 035107.	2.8	3
43	Realization of blue, green and red emission from top-emitting white organic light-emitting diodes with exterior tunable optical films. Organic Electronics, 2008, 9, 959-963.	2.6	19