

Xiao Dong

List of Publications by Year in descending order

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63
papers

2,233
citations

304743

22
h-index

223800

46
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63
all docs

63
docs citations

63
times ranked

2857
citing authors

#	ARTICLE	IF	CITATIONS
1	Robust and low cost in-fiber acousto-optic Mach-Zehnder interferometer and its application in dual-wavelength laser. Applied Optics, 2022, 61, 22-27.	1.8	0
2	Temperature-tunable optical properties and carrier relaxation of $\text{CuInP}_{2}\text{S}_{6}$ crystals under ferroelectric-paraelectric phase transition. Journal of Materials Chemistry C, 2022, 10, 696-706.	5.5	9
3	Ultrahigh-Pressure Magnesium Hydrosilicates as Reservoirs of Water in Early Earth. Physical Review Letters, 2022, 128, 035703.	7.8	16
4	Electronegativity and chemical hardness of elements under pressure. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2117416119.	7.1	25
5	Crystalline $\text{C}_{3}\text{N}_{3}\text{H}_{3}$ tube (3,0) nanothreads. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2201165119.	7.1	13
6	Pressure-Induced Hydrogen Transfer in 2-Butyne via a Double $\text{CH}\cdots\text{H}\cdots\text{C}$ Aromatic Transition State. Journal of Physical Chemistry Letters, 2022, 13, 4170-4175.	4.6	1
7	Phase transition of layer-stacked borophene under pressure. Physical Review B, 2022, 105, .	3.2	5
8	High-Pressure Synthesis of Highly Conjugated Polymers via Synergistic Polymerization of Phenylpropionic Acid. ACS Applied Polymer Materials, 2022, 4, 5246-5252.	4.4	2
9	Can HHe^{+} exist at high pressure: Exploration of high pressure induced $\text{HF}\cdots\text{He}$ compounds. Geoscience Frontiers, 2021, 12, 1039-1043.	8.4	2
10	Compact Dynamic In-Fiber Acoustically-Induced Mach-Zehnder Interferometer Based on Phase Mismatch and Its Application in a Tunable and Switchable Dual-Wavelength Laser. Journal of Lightwave Technology, 2021, 39, 3539-3545.	4.6	4
11	Phase transition and chemical reactivity of 1H-tetrazole under high pressure up to 100 GPa. Physical Chemistry Chemical Physics, 2021, 23, 19503-19510.	2.8	3
12	Helium-nitrogen mixtures at high pressure. Physical Review B, 2021, 103, .	3.2	16
13	Negative linear compressibility and unusual dynamic behavior of NaB_{3} . Physical Review Materials, 2021, 5, .	2.4	1
14	Compression Rate-Dependent Crystallization of Pyridine. Journal of Physical Chemistry C, 2021, 125, 6983-6989.	3.1	9
15	All-Fiber Frequency Shifter Based on an Acousto-Optic Tunable Filter Cascaded with a Tapered Fiber-Coupled Microcavity. Crystals, 2021, 11, 497.	2.2	2
16	Unraveling the anomalous mechanoluminescence intensity change and pressure-induced red-shift for manganese-doped zinc sulfide. Nano Energy, 2021, 85, 106005.	16.0	19
17	Scalable High-Pressure Synthesis of $\text{sp}^{2}\cdots\text{sp}^{3}$ Carbon Nanoribbon via [4 + 2] Polymerization of 1,3,5-Triethynylbenzene. Journal of Physical Chemistry Letters, 2021, 12, 7140-7145.	4.6	5
18	Formation of copper boride on Cu(111). Fundamental Research, 2021, 1, 482-487.	3.3	15

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19	Theoretical study of the crystal structure, stability, and properties of phases in the V-N system. <i>Physical Review B</i> , 2021, 104, .	3.2	4
20	Pressure Gradient Squeezing Hydrogen out of MnOOH: Thermodynamics and Electrochemistry. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 10893-10898.	4.6	3
21	Crystalline Fully Carboxylated Polyacetylene Obtained under High Pressure as a Li-Ion Battery Anode Material. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 12055-12061.	4.6	7
22	Restacked melon as highly-efficient photocatalyst. <i>Nano Energy</i> , 2020, 77, 105124.	16.0	7
23	Distance-Selected Topochemical Dehydro-Diels-Alder Reaction of 1,4-Diphenylbutadiyne toward Crystalline Graphitic Nanoribbons. <i>Journal of the American Chemical Society</i> , 2020, 142, 17662-17669.	13.7	23
24	High-temperature superconductivity in the Ti-H system at high pressures. <i>Physical Review B</i> , 2020, 101, .	3.2	15
25	First-principles prediction of two-dimensional copper borides. <i>Physical Review Materials</i> , 2020, 4, .	2.4	8
26	Predicted lithium oxide compounds and superconducting low-pressure LiO_4 . <i>Physical Review B</i> , 2019, 100, .	3.2	2
27	Predicting three-dimensional icosahedron-based boron B_{60} . <i>Physical Review B</i> , 2019, 99, .	3.2	21
28	Structure and Electrical Performance of $\text{Na}_2\text{C}_6\text{O}_6$ under High Pressure. <i>Journal of Physical Chemistry C</i> , 2019, 123, 17163-17169.	3.1	3
29	Magnetic borophenes from an evolutionary search. <i>Physical Review B</i> , 2019, 99, .	3.2	25
30	Drastic photoluminescence modulation of an organic molecular crystal with high pressure. <i>Materials Chemistry Frontiers</i> , 2019, 3, 1510-1517.	5.9	17
31	Pressure-Induced Polymerization of Monosodium Acetylide: A Radical Reaction Initiated Topochemically. <i>Journal of Physical Chemistry C</i> , 2019, 123, 30746-30753.	3.1	13
32	Pressure-Induced Diels-Alder Reactions in C_6H_6 - C_6F_6 Cocrystal towards Graphane Structure. <i>Angewandte Chemie</i> , 2019, 131, 1482-1487.	2.0	1
33	Pressure-Induced Diels-Alder Reactions in C_6H_6 - C_6F_6 Cocrystal towards Graphane Structure. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 1468-1473.	13.8	36
34	Low-energy 3D sp^2 carbons with versatile properties beyond graphite and graphene. <i>Dalton Transactions</i> , 2018, 47, 6233-6239.	3.3	7
35	Predicting the ground-state structure of sodium boride. <i>Physical Review B</i> , 2018, 97, .	3.2	26
36	Efficiently suppressing lithium dendrites on atomic level by ultrafiltration membrane of graphdiyne. <i>Materials Today Energy</i> , 2018, 10, 191-199.	4.7	28

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37	Novel high-pressure calcium carbonates. <i>Physical Review B</i> , 2018, 98, .	3.2	32
38	Tailored Synthesis of the Narrowest Zigzag Graphene Nanoribbon Structure by Compressing the Lithium Acetylide under High Temperature. <i>Journal of Physical Chemistry C</i> , 2018, 122, 20506-20512.	3.1	10
39	Novel Two-Dimensional Silicon Dioxide with in-Plane Negative Poisson's Ratio. <i>Nano Letters</i> , 2017, 17, 772-777.	9.1	184
40	A stable compound of helium and sodium at high pressure. <i>Nature Chemistry</i> , 2017, 9, 440-445.	13.6	276
41	Pressure-Induced Polymerization of Acetylene: Structure-Directed Stereoselectivity and a Possible Route to Graphane. <i>Angewandte Chemie</i> , 2017, 129, 6653-6657.	2.0	7
42	Pressure-Induced Polymerization of Acetylene: Structure-Directed Stereoselectivity and a Possible Route to Graphane. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 6553-6557.	13.8	31
43	Pressure-Induced Polymerization and Disproportionation of Li_2C_2 Accompanied with Irreversible Conductivity Enhancement. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 4241-4245.	4.6	14
44	Raman spectroscopy and x-ray diffraction of CaC_3O at lower mantle pressures. <i>Physical Review B</i> , 2017, 96, .	3.2	54
45	Genome adaptive evolution of <i>Lactobacillus casei</i> under long-term antibiotic selection pressures. <i>BMC Genomics</i> , 2017, 18, 320.	2.8	29
46	Polymerization of Acetonitrile via a Hydrogen Transfer Reaction from CH_3 to CN under Extreme Conditions. <i>Angewandte Chemie</i> , 2016, 128, 12219-12223.	2.0	4
47	Polymerization of Acetonitrile via a Hydrogen Transfer Reaction from CH_3 to CN under Extreme Conditions. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 12040-12044.	13.8	26
48	Novel superhard BaCO phases predicted from first principles. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 1859-1863.	2.8	44
49	Pressure induced polymerization of acetylide anions in CaC_2 and 10 ⁷ fold enhancement of electrical conductivity. <i>Chemical Science</i> , 2016, 8, 298-304.	7.4	17
50	Nitrogen oxides under pressure: stability, ionization, polymerization and superconductivity. <i>Scientific Reports</i> , 2015, 5, 16311.	3.3	9
51	A new phase from compression of carbon nanotubes with anisotropic Dirac fermions. <i>Scientific Reports</i> , 2015, 5, 10713.	3.3	23
52	Prediction of new thermodynamically stable aluminum oxides. <i>Scientific Reports</i> , 2015, 5, 9518.	3.3	18
53	Semimetallic Two-Dimensional Boron Allotrope with Massless Dirac Fermions. <i>Physical Review Letters</i> , 2014, 112, .	7.8	497
54	A metallic carbon consisting of helical carbon triangle chains. <i>Journal of Physics Condensed Matter</i> , 2014, 26, 235402.	1.8	10

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55	Novel Hydrogen Hydrate Structures under Pressure. Scientific Reports, 2014, 4, 5606.	3.3	41
56	An <i>ab initio</i> study on the transition paths from graphite to diamond under pressure. Journal of Physics Condensed Matter, 2013, 25, 145402.	1.8	22
57	Variable cell nudged elastic band method for studying solid–solid structural phase transitions. Computer Physics Communications, 2013, 184, 2111-2118.	7.5	71
58	High-pressure phases of NaAlH ₄ from first principles. Applied Physics Letters, 2012, 100, 061905.	3.3	10
59	Superhard F-carbon predicted by <i>ab initio</i> particle-swarm optimization methodology. Journal of Physics Condensed Matter, 2012, 24, 165504.	1.8	42
60	Tetragonal Allotrope of Group 14 Elements. Journal of the American Chemical Society, 2012, 134, 12362-12365.	13.7	170
61	Superconducting high-pressure phase of platinum hydride from first principles. Physical Review B, 2011, 84, .	3.2	47
62	Unusual compression behavior of TiO_2 from first principles. Physical Review B, 2010, 82, .	3.2	28
63	<i>Ab initio</i> study of the formation of transparent carbon under pressure. Physical Review B, 2010, 82, .	3.2	119