

Guoying Gao

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9011425/publications.pdf>

Version: 2024-02-01

68
papers

2,744
citations

218381

26
h-index

182168

51
g-index

72
all docs

72
docs citations

72
times ranked

2274
citing authors

#	ARTICLE	IF	CITATIONS
1	Two-dimensional Boron Monolayers Mediated by Metal Substrates. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 13022-13026.	7.2	288
2	Superconducting High Pressure Phase of Germane. <i>Physical Review Letters</i> , 2008, 101, 107002.	2.9	224
3	High-pressure crystal structures and superconductivity of Stannane (SnH ₄). <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 1317-1320.	3.3	168
4	Compressed sodalite-like MgH ₆ as a potential high-temperature superconductor. <i>RSC Advances</i> , 2015, 5, 59292-59296.	1.7	147
5	Crystal Structures and Exotic Behavior of Magnesium under Pressure. <i>Journal of Physical Chemistry C</i> , 2010, 114, 21745-21749.	1.5	146
6	Superconductivity at ~ 100 K in dense SiH ₄ (H ₂) ₂ predicted by first principles. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 15708-15711.	3.3	132
7	Potential high-temperature superconductivity in CaYH ₁₂ under pressure. <i>Physical Review B</i> , 2019, 99, .	1.1	109
8	Dissociation of methane under high pressure. <i>Journal of Chemical Physics</i> , 2010, 133, 144508.	1.2	101
9	Crystal Structure and Superconductivity of PH ₃ at High Pressures. <i>Journal of Physical Chemistry C</i> , 2016, 120, 3458-3461.	1.5	78
10	Two-dimensional boron-nitrogen-carbon monolayers with tunable direct band gaps. <i>Nanoscale</i> , 2015, 7, 12023-12029.	2.8	74
11	Prediction of high-temperature superconductivity in ternary lanthanum borohydrides. <i>Physical Review B</i> , 2021, 104, .	1.1	66
12	Metallic and superconducting gallane under high pressure. <i>Physical Review B</i> , 2011, 84, .	1.1	65
13	Theoretical study of the ground-state structures and properties of niobium hydrides under pressure. <i>Physical Review B</i> , 2013, 88, .	1.1	63
14	Hydrogen-rich superconductors at high pressures. <i>Wiley Interdisciplinary Reviews: Computational Molecular Science</i> , 2018, 8, e1330.	6.2	57
15	Discovery of carbon-based strongest and hardest amorphous material. <i>National Science Review</i> , 2022, 9, nwab140.	4.6	49
16	Pressure-Induced Formation of Noble Metal Hydrides. <i>Journal of Physical Chemistry C</i> , 2012, 116, 1995-2000.	1.5	46
17	The Unusual and the Expected in the Si/C Phase Diagram. <i>Journal of the American Chemical Society</i> , 2013, 135, 11651-11656.	6.6	42
18	Electronic structures, lattice dynamics, and electron-phonon coupling of simple cubic Ca under pressure. <i>Solid State Communications</i> , 2008, 146, 181-185.	0.9	41

#	ARTICLE	IF	CITATIONS
19	A superhard sp ³ microporous carbon with direct bandgap. Chemical Physics Letters, 2017, 689, 68-73.	1.2	39
20	Tetragonal high-pressure phase of ZnO predicted from first principles. Physical Review B, 2009, 79, .	1.1	37
21	First-principles study of crystal structures and superconductivity of ternary YSH_6 and LaSH_6 at high pressures. Physical Review B, 2019, 100, .	1.1	33
22	Nb-H system at high pressures and temperatures. Physical Review B, 2017, 95, .	1.1	32
23	Continuous strengthening in nanotwinned diamond. Npj Computational Materials, 2019, 5, .	3.5	32
24	Mechanical properties of boron arsenide single crystal. Applied Physics Letters, 2019, 114, .	1.5	31
25	Hard three-dimensional BN framework with one-dimensional metallicity. Journal of Alloys and Compounds, 2018, 731, 364-368.	2.8	27
26	Polymerization of Acetonitrile via a Hydrogen Transfer Reaction from CH_3 to CN under Extreme Conditions. Angewandte Chemie - International Edition, 2016, 55, 12040-12044.	7.2	26
27	Pressure-induced boron nitride nanotube derivatives: 3D metastable allotropes. Journal of Applied Physics, 2017, 121, .	1.1	25
28	Magnetic borophenes from an evolutionary search. Physical Review B, 2019, 99, .	1.1	25
29	Superconductivity in Li-intercalated TaTe_2 driven by electric field gating. Physical Review Materials, 2019, 3, .	1.1	25
30	Superconducting binary hydrides: Theoretical predictions and experimental progresses. Materials Today Physics, 2021, 21, 100546.	2.9	24
31	Orientationally disordered H_2 the high-pressure van der Waals compound		

#	ARTICLE	IF	CITATIONS
37	Novel superhard boron-rich nitrides under pressure. <i>Science China Materials</i> , 2020, 63, 2358-2364.	3.5	17
38	Si ₁₀ : A sp ³ Silicon Allotrope with Spirally Connected Si ₅ Tetrahedrons. <i>Chemistry of Materials</i> , 2016, 28, 6441-6445.	3.2	16
39	Superhard three-dimensional B ₃ N ₄ with two-dimensional metallicity. <i>Journal of Materials Chemistry C</i> , 2017, 5, 5897-5901.	2.7	16
40	Helium-nitrogen mixtures at high pressure. <i>Physical Review B</i> , 2021, 103, .	1.1	16
41	Novel Si Networks in the Ca/Si Phase Diagram under Pressure. <i>Journal of Physical Chemistry C</i> , 2014, 118, 25167-25175.	1.5	15
42	High-pressure phases of boron arsenide with potential high thermal conductivity. <i>Physical Review B</i> , 2019, 99, .	1.1	15
43	Formation of copper boride on Cu(111). <i>Fundamental Research</i> , 2021, 1, 482-487.	1.6	15
44	New hexagonal boron nitride polytypes with triple-layer periodicity. <i>Journal of Applied Physics</i> , 2017, 121, .	1.1	13
45	One-step synthetic route and sintering for carbon-coated B ₄ C nanoparticles. <i>Journal of Alloys and Compounds</i> , 2019, 782, 263-269.	2.8	13
46	Superconductivity and lattice instability in face-centered cubic lanthanum under high pressure. <i>Journal of Physics Condensed Matter</i> , 2007, 19, 425234.	0.7	12
47	Prediction of superconductivity in pressure-induced new silicon boride phases. <i>Physical Review B</i> , 2020, 101, .	1.1	12
48	Spin-flip-driven giant magnetotransport in A-type antiferromagnet NaCrTe . <i>Physical Review Materials</i> , 2021, 5, .	1.1	12
49	Theoretical investigation of the valence states in Au <i>via</i> the AuF compounds under high pressure. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 17621-17627.	1.3	11
50	Mechanically ductile 3D sp ² microporous carbon. <i>Journal of Materials Science</i> , 2018, 53, 4316-4322.	1.7	10
51	Rapid fabrication of hierarchical porous SiC/C hybrid structure: toward high-performance capacitive energy storage with ultrahigh cyclability. <i>Journal of Materials Science</i> , 2021, 56, 16068-16081.	1.7	8
52	First-principles prediction of two-dimensional copper borides. <i>Physical Review Materials</i> , 2020, 4, .	0.9	8
53	Superconducting LaP_2H_2 with graphenelike phosphorus layers. <i>Physical Review B</i> , 2022, 105, .	1.1	8
54	Low-energy 3D sp ² carbons with versatile properties beyond graphite and graphene. <i>Dalton Transactions</i> , 2018, 47, 6233-6239.	1.6	7

#	ARTICLE	IF	CITATIONS
55	Novel carbon polymorphs with cumulative double bonds in three-dimensional sp^2 hybrid framework. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 15022-15029.	1.3	7
56	New modulated structures of solid bromine at high pressure. <i>Computational Materials Science</i> , 2020, 171, 109205.	1.4	7
57	Pressure-Induced Two-Color Photoluminescence and Phase Transition of Two-Dimensional Layered $MnCl_2$. <i>Journal of Physical Chemistry C</i> , 2020, 124, 23317-23323.	1.5	6
58	Nanocrystalline Cubic Silicon Carbide: A Route to Superhardness. <i>Small</i> , 2022, 18, e2201212.	5.2	6
59	Potential Semiconducting and Superconducting Metastable Si_3C Structures under Pressure. <i>Chemistry of Materials</i> , 2018, 30, 421-427.	3.2	5
60	Tunable electrical properties of C_{60} -m-xylene and the formation of semiconducting ordered amorphous carbon clusters under pressure. <i>Nano Research</i> , 2022, 15, 3788-3793.	5.8	5
61	Polymerization of Acetonitrile via a Hydrogen Transfer Reaction from CH_3 to CN under Extreme Conditions. <i>Angewandte Chemie</i> , 2016, 128, 12219-12223.	1.6	4
62	Synthesis of twin-structured nanodiamond particles. <i>AIP Advances</i> , 2020, 10, 015240.	0.6	4
63	Phase transitions of alkaline-earth metal sulfides under pressure. <i>Materials Research Express</i> , 2021, 8, 065902.	0.8	4
64	High-pressure polymorphs of Li_2BeH_4 predicted by first-principles calculations. <i>Journal of Physics Condensed Matter</i> , 2009, 21, 385405.	0.7	3
65	InnenrÄ¼cktitelbild: Two-Dimensional Boron Monolayers Mediated by Metal Substrates (<i>Angew. Chem.</i>) Tj ETQq1 1.0.784314 rgBT /Ov	1.6	2
66	High-Pressure Synthesis of cBN Nanoparticles with High-Density Nanotwin Substructures. <i>ACS Omega</i> , 2020, 5, 650-654.	1.6	2
67	Nanocrystalline Cubic Silicon Carbide: A Route to Superhardness (<i>Small</i> 22/2022). <i>Small</i> , 2022, 18, .	5.2	1
68	3D hybrid carbon composed of multigraphene bridged by carbon chains. <i>AIP Advances</i> , 2018, 8, 015019.	0.6	0