

# Shoutao Zhang

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

42 papers	965 citations	15 h-index	30 g-index
43 ext. papers	1,285 ext. citations	6.2 avg, IF	4.54 L-index

#	Paper	IF	Citations
42	Multi-mode plasmonic resonance broadband LWIR metamaterial absorber based on lossy metal ring.. <i>Optics Express</i> , <b>2022</b> , 30, 473-483	3.3	2
41	Pressure-Driven Ne-Bearing Polynitrides with Ultrahigh Energy Density. <i>Chinese Physics Letters</i> , <b>2022</b> , 39, 056102	1.8	0
40	Emerging Yttrium Phosphides with Tetrahedron Phosphorus and Superconductivity under High Pressures. <i>Chemistry - A European Journal</i> , <b>2021</b> , 27, 17420-17427	4.8	0
39	Superconductive Sodium Carbides with Pentagon Carbon at High Pressures. <i>Journal of Physical Chemistry Letters</i> , <b>2021</b> , 12, 5850-5856	6.4	2
38	Hard and superconducting cubic boron phase via swarm-intelligence structural prediction driven by a machine-learning potential. <i>Physical Review B</i> , <b>2021</b> , 103,	3.3	7
37	Pressure-stabilized GdN <sub>6</sub> with an armchair-antiarmchair structure as a high energy density material. <i>Journal of Materials Chemistry A</i> , <b>2021</b> , 9, 16751-16758	13	2
36	Crystal structures and superconductivity of lithium and fluorine implanted gold hydrides under high pressures. <i>Physical Chemistry Chemical Physics</i> , <b>2021</b> , 23, 21544-21553	3.6	1
35	Superconducting boron allotropes. <i>Physical Review B</i> , <b>2020</b> , 101,	3.3	8
34	Unconventional stable stoichiometry of vanadium peroxide. <i>Physical Chemistry Chemical Physics</i> , <b>2020</b> , 22, 11460-11466	3.6	1
33	Structural and electronic properties of tungsten oxides under high pressures. <i>Journal of Physics Condensed Matter</i> , <b>2020</b> , 32, 085403	1.8	2
32	Achieving high hydrogen evolution reaction activity of a MoC monolayer. <i>Physical Chemistry Chemical Physics</i> , <b>2020</b> , 22, 26189-26199	3.6	4
31	Unveiling the Role of Oxygen Vacancy in Li <sub>2</sub> MnO <sub>3</sub> upon Delithiation. <i>Journal of Physical Chemistry C</i> , <b>2019</b> , 123, 23403-23409	3.8	6
30	Metallic P <sub>3</sub> C monolayer as anode for sodium-ion batteries. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 405-411	13	49
29	High-Temperature Ferromagnetism in an FeP Monolayer with a Large Magnetic Anisotropy. <i>Journal of Physical Chemistry Letters</i> , <b>2019</b> , 10, 2733-2738	6.4	50
28	Predicted Pressure-Induced Superconducting Transition in Electride Li <sub>6</sub> P. <i>Physical Review Letters</i> , <b>2019</b> , 122, 097002	7.4	51
27	Phase diagrams and electronic properties of B-S and H-B-S systems under high pressure. <i>Physical Review B</i> , <b>2019</b> , 100,	3.3	7
26	Two-Dimensional PC with Direct Band Gap and Anisotropic Carrier Mobility. <i>Journal of the American Chemical Society</i> , <b>2019</b> , 141, 1599-1605	16.4	76

25	Hexagonal BC <sub>2</sub> N with Remarkably High Hardness. <i>Journal of Physical Chemistry C</i> , <b>2018</b> , 122, 6801-6807	3.8	15
24	TiC Monolayer with High Specific Capacity for Sodium-Ion Batteries. <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 5962-5968	16.4	152
23	Gold with +4 and +6 Oxidation States in AuF and AuF <sub>2</sub> . <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 9545-9550	16.4	50
22	Nonmetallic FeH <sub>6</sub> under High Pressure. <i>Journal of Physical Chemistry C</i> , <b>2018</b> , 122, 12022-12028	3.8	21
21	Structural and Superconducting Properties of Tungsten Hydrides Under High Pressure. <i>Frontiers in Physics</i> , <b>2018</b> , 6,	3.9	5
20	Pressure-Induced Stable Beryllium Peroxide. <i>Inorganic Chemistry</i> , <b>2017</b> , 56, 5233-5238	5.1	15
19	Understanding the role of lithium sulfide clusters in lithium-sulfur batteries. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 9293-9298	13	34
18	Tetragonal Structure BC <sub>4</sub> as a Superhard Material. <i>Journal of Physical Chemistry C</i> , <b>2017</b> , 121, 10119-10123	3.3	5
17	Phase diagram, stability and electronic properties of an FeB system under high pressure: a first principles study. <i>RSC Advances</i> , <b>2017</b> , 7, 15986-15991	3.7	18
16	Pressure-induced stable BeN <sub>4</sub> as a high-energy density material. <i>Journal of Power Sources</i> , <b>2017</b> , 365, 155-161	8.9	22
15	Stable and metallic two-dimensional TaC <sub>2</sub> as an anode material for lithium-ion battery. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 18698-18706	13	50
14	Tellurium Hydrides at High Pressures: High-Temperature Superconductors. <i>Physical Review Letters</i> , <b>2016</b> , 116, 057002	7.4	104
13	Structure and Electronic Properties of FeSH Compound under High Pressure. <i>Inorganic Chemistry</i> , <b>2016</b> , 55, 11434-11439	5.1	35
12	Silicon Framework-Based Lithium Silicides at High Pressures. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 16761-7	9.5	11
11	Globally stable structures of Li <sub>x</sub> Zn (x = 1-4) compounds at high pressures. <i>Physical Chemistry Chemical Physics</i> , <b>2016</b> , 18, 4437-43	3.6	6
10	ATLAS: A real-space finite-difference implementation of orbital-free density functional theory. <i>Computer Physics Communications</i> , <b>2016</b> , 200, 87-95	4.2	29
9	First-principle optimal local pseudopotentials construction via optimized effective potential method. <i>Journal of Chemical Physics</i> , <b>2016</b> , 144, 134108	3.9	15
8	Exploring the metallic phase of N <sub>2</sub> O under high pressure. <i>RSC Advances</i> , <b>2015</b> , 5, 65745-65749	3.7	4

7	Ten-fold coordinated polymorph and metallization of TiO <sub>2</sub> under high pressure. <i>RSC Advances</i> , <b>2015</b> , 5, 54253-54257	3.7	11
6	Crystal Structures and Electronic Properties of Cesium Xenides at High Pressures. <i>Journal of Physical Chemistry C</i> , <b>2015</b> , 119, 24996-25002	3.8	12
5	Pressure-induced structural changes and elemental dissociation of cadmium and mercury chalcogenides. <i>RSC Advances</i> , <b>2015</b> , 5, 104426-104432	3.7	4
4	Phase Diagram and High-Temperature Superconductivity of Compressed Selenium Hydrides. <i>Scientific Reports</i> , <b>2015</b> , 5, 15433	4.9	56
3	Hypervalent Iodine with Linear Chain at High Pressure. <i>Scientific Reports</i> , <b>2015</b> , 5, 14393	4.9	8
2	Exploring High-Pressure Structures of N <sub>2</sub> CO. <i>Journal of Physical Chemistry C</i> , <b>2014</b> , 118, 27252-27257	3.8	13
1	Fabrication of Alkali Metal Boride: Honeycomb-Like Structured NaB <sub>4</sub> with High Hardness and Excellent Electrical Conductivity. <i>Advanced Functional Materials</i> , 2110872	15.6	2