

Zhenhai Yu

List of Publications by Year in descending order

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62
papers

1,855
citations

331670

21
h-index

276875

41
g-index

63
all docs

63
docs citations

63
times ranked

2818
citing authors

#	ARTICLE	IF	CITATIONS
1	Solids, liquids, and gases under high pressure. <i>Reviews of Modern Physics</i> , 2018, 90, .	45.6	337
2	Pressure-Induced Phase Transformation, Reversible Amorphization, and Anomalous Visible Light Response in Organolead Bromide Perovskite. <i>Journal of the American Chemical Society</i> , 2015, 137, 11144-11149.	13.7	303
3	Size-Dependent Amorphization of Nanoscale Y_2O_3 at High Pressure. <i>Physical Review Letters</i> , 2010, 105, 095701.	7.8	100
4	High-pressure induced phase transitions of Y_2O_3 and $Y_2O_3:Eu^{3+}$. <i>Applied Physics Letters</i> , 2009, 94, .	3.3	74
5	Pressure-Induced Amorphization in Single-Crystal Ta_2O_5 Nanowires: A Kinetic Mechanism and Improved Electrical Conductivity. <i>Journal of the American Chemical Society</i> , 2013, 135, 13947-13953.	13.7	70
6	Structural phase transitions in Bi_2Se_3 under high pressure. <i>Scientific Reports</i> , 2015, 5, 15939.	3.3	56
7	Pressure-Induced Isostructural Phase Transition and Correlation of FeAs Coordination with the Superconducting Properties of 111-Type Na_xFeAs . <i>Journal of the American Chemical Society</i> , 2011, 133, 7892-7896.	13.7	55
8	Li-ion battery material under high pressure: amorphization and enhanced conductivity of $Li_4Ti_5O_{12}$. <i>National Science Review</i> , 2019, 6, 239-246.	9.5	49
9	Magnetic exchange induced Weyl state in a semimetal $EuCd_2Sb_2$. <i>APL Materials</i> , 2020, 8, .	5.1	37
10	Crystal structure and transporting properties of Bi_2S_3 under high pressure: Experimental and theoretical studies. <i>Journal of Alloys and Compounds</i> , 2016, 688, 329-335.	5.5	36
11	Solvated fullerenes, a new class of carbon materials suitable for high-pressure studies: A review. <i>Journal of Physics and Chemistry of Solids</i> , 2015, 84, 85-95.	4.0	35
12	Pressure-Induced Structural Phase Transition and a Special Amorphization Phase of Two-Dimensional Ferromagnetic Semiconductor $Cr_2Ge_2Te_6$. <i>Journal of Physical Chemistry C</i> , 2019, 123, 13885-13891.	3.1	35
13	Magnetic critical behavior of the van der Waals Fe_5GeTe_2 crystal with near room temperature ferromagnetism. <i>Scientific Reports</i> , 2020, 10, 15345.	3.3	35
14	Recent progress on high-pressure and high-temperature studies of fullerenes and related materials. <i>Matter and Radiation at Extremes</i> , 2019, 4, .	3.9	34
15	Understanding $CrGeTe_3$: an abnormal phase change material with inverse resistance and density contrast. <i>Journal of Materials Chemistry C</i> , 2019, 7, 9025-9030.	5.5	28
16	Stoichiometric evolutions of PH_3 under high pressure: implication for high- T_c superconducting hydrides. <i>National Science Review</i> , 2019, 6, 524-531.	9.5	28
17	Pressure-induced superconductivity and topological phase transitions in the topological nodal-line semimetal $SrAs_3$. <i>Npj Quantum Materials</i> , 2020, 5, .	5.2	27
18	Impact of Pressure on the Resonant Bonding in Chalcogenides. <i>Journal of Physical Chemistry C</i> , 2017, 121, 25447-25454.	3.1	25

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19	Isostructural Phase Transition in Bismuth Oxide Chloride Induced by Redistribution of Charge under High Pressure. <i>Journal of Physical Chemistry C</i> , 2015, 119, 27657-27665.	3.1	24
20	Quasi 3D polymerization in C60 bilayers in a fullerene solvate. <i>Carbon</i> , 2017, 124, 499-505.	10.3	23
21	Lattice dynamics in monolayer and few-layer SnSe2. <i>Physical Review B</i> , 2017, 96, .	3.2	22
22	Pressure-induced structural and semiconductor-semiconductor transitions in C_{60}	3.2	20
23	Reversing the Resistivity Contrast in the Phase-Change Memory Material $GeSb_2Te_4$ Using High Pressure. <i>Advanced Electronic Materials</i> , 2015, 1, 1500240.	5.1	19
24	Photoluminescence and phase transition in Er_2O_3 under high pressure. <i>Journal of Alloys and Compounds</i> , 2017, 725, 941-945.	5.5	19
25	Pressure-induced isostructural phase transition and charge transfer in superconducting FeSe. <i>Journal of Alloys and Compounds</i> , 2018, 767, 811-819.	5.5	19
26	X-ray diffraction and spectroscopy study of nano- Eu_2O_3 structural transformation under high pressure. <i>Journal of Alloys and Compounds</i> , 2017, 701, 542-548.	5.5	18
27	Structural phase transitions of $(Bi_{1-x}Sb_x)_2(Te_{1-y}Se_y)_3$ compounds under high pressure and the influence of the atomic radius on the compression processes of tetradymites. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 2207-2216.	2.8	18
28	Pressure-Induced Crystallization and Phase Transformation of Para-xylene. <i>Scientific Reports</i> , 2017, 7, 5321.	3.3	18
29	Structural Phase Transitions and Metallized Phenomena in Arsenic Telluride under High Pressure. <i>Inorganic Chemistry</i> , 2016, 55, 3907-3914.	4.0	17
30	High-Pressure Crystal Growth, Superconducting Properties, and Electronic Band Structure of Nb_2P_5 . <i>Chemistry of Materials</i> , 2020, 32, 8781-8788.	6.7	17
31	Conventional empirical law reverses in the phase transitions of 122-type iron-based superconductors. <i>Scientific Reports</i> , 2014, 4, 7172.	3.3	16
32	Pressure-induced structural transitions of a room temperature ionic liquid 1-ethyl-3-methylimidazolium chloride. <i>Journal of Chemical Physics</i> , 2017, 146, .	3.0	16
33	Unique 2D \leftrightarrow 3D Structure Transformations in Trichalcogenide $CrSiTe_3$ under High Pressure. <i>Journal of Physical Chemistry C</i> , 2020, 124, 15600-15606.	3.1	15
34	Pressure-induced phase transitions of exposed curved surface nano-TiO2 with high photocatalytic activity. <i>Journal of Applied Physics</i> , 2016, 119, .	2.5	14
35	Raman spectroscopy and lattice dynamical stability study of 2D ferromagnetic semiconductor $Cr_2Ge_2Te_6$ under high pressure. <i>Journal of Alloys and Compounds</i> , 2020, 819, 153368.	5.5	14
36	Anomalous anisotropic compression behavior of superconducting CrAs under high pressure. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 14766-14770.	7.1	13

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37	The behaviors of anatase and TiO ₂ (B) phase coexisting nanosheets under high pressure. Radiation Physics and Chemistry, 2016, 120, 1-6.	2.8	13
38	Unexpected Semimetallic BiS ₂ at High Pressure and High Temperature. Journal of Physical Chemistry Letters, 2018, 9, 5785-5791.	4.6	12
39	Superconductivity in chromium nitrides Pr ₃ Cr _{10-x} N ₁₁ with strong electron correlations. National Science Review, 2020, 7, 21-26.	9.5	12
40	Bandgap widening by pressure-induced disorder in two-dimensional lead halide perovskite. Applied Physics Letters, 2020, 116, 101901.	3.3	12
41	Quantum oscillations and nontrivial topological state in a compensated semimetal TaP . Physical Review B, 2019, 100, .		
42	Pressured-induced superconducting phase with large upper critical field and concomitant enhancement of antiferromagnetic transition in EuTe ₂ . Nature Communications, 2022, 13, .	12.8	11
43	Size-dependent phase transition of Er ₂ O ₃ under high pressure. Applied Physics Letters, 2018, 112, 143102.	3.3	10
44	High pressure powder X-ray diffraction study of Cr ₂ As and pressure-induced structural phase transition. Solid State Communications, 2012, 152, 509-512.	1.9	9
45	Pressure-induced band-gap closure and metallization in two-dimensional transition metal halide CdI ₂ . Applied Materials Today, 2020, 18, 100532.	4.3	9
46	Pressure-induced electronic anomaly and multiband superconductivity in the doped topological insulator NbxByS . Physical Review B, 2020, 101, .	3.2	7
47	Pressure-induced superconductivity on the layered semimetal CaAsP . Physical Review B, 2020, 101, .	3.2	7
48	Phase transformation and fluorescent enhancement of ErF ₃ at high pressure. Solid State Communications, 2016, 242, 30-35.	1.9	6
49	Pressure-Induced Two-Color Photoluminescence and Phase Transition of Two-Dimensional Layered MnCl ₂ . Journal of Physical Chemistry C, 2020, 124, 23317-23323.	3.1	6
50	Correlated structural and electronic phase transformations in transition metal chalcogenide under high pressure. Journal of Applied Physics, 2016, 119, .	2.5	5
51	Robust magnetoresistance in TaAs ₂ under pressure up to about 37 GPa. Applied Physics Letters, 2019, 115, 122403.	3.3	5
52	The experimental compression behavior of platinum hydride to 128 GPa. Materials Letters, 2019, 249, 84-86.	2.6	5
53	Coupled magnetic and structural phase transitions in the antiferromagnetic polar metal PbO under pressure. Physical Review B, 2020, 102, .	3.2	5
54	High-pressure synchrotron Mössbauer and X-ray diffraction studies: Exploring the structure-related valence fluctuation in EuNi ₂ P ₂ . Physica B: Condensed Matter, 2016, 501, 101-105.	2.7	4

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55	Structural evolution behavior of manganese monophosphide under high pressure: experimental and theoretical study. <i>Journal of Physics Condensed Matter</i> , 2017, 29, 254002.	1.8	4
56	Pressure-Induced Dimerization of C60 at Room Temperature as Revealed by an In Situ Spectroscopy Study Using an Infrared Laser. <i>Crystals</i> , 2020, 10, 182.	2.2	4
57	<i>In situ</i> high-pressure synchrotron X-ray diffraction study of the structural stability in the intermetallic compound Mn ₂ Sb. <i>Physica Status Solidi (B): Basic Research</i> , 2012, 249, 2239-2243.	1.5	3
58	Large magnetoresistance and unexpected low thermal conductivity in topological semimetal CrP ₄ single crystal. <i>Applied Physics A: Materials Science and Processing</i> , 2022, 128, 1.	2.3	3
59	Superconductivity at 4.6 K in the Cr-based nitride La ₃ Cr ₁₀ N ₁₁ . <i>Europhysics Letters</i> , 2019, 128, 67002.	2.0	2
60	The Remarkable Anisotropic Compressibility and Metallic Cr ₂ Cr Chains in Topological Semimetal CrP ₄ under High Pressure. <i>Physica Status Solidi (B): Basic Research</i> , 2021, 258, 2000544.	1.5	2
61	Dehydro-Diels-Alder reaction and diamondization of bowl-shaped clusters C ₁₈ Te ₃ Br ₄ (Bu-O) ₆ . <i>Nano Research</i> , 0, , 1.	10.4	2
62	High-pressure synthesis of nanomaterials with exotic phases. , 2022, , .		0