

Zhenhai Yu

List of Publications by Year in descending order

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62
papers

1,855
citations

331259

21
h-index

276539

41
g-index

63
all docs

63
docs citations

63
times ranked

2818
citing authors

#	ARTICLE	IF	CITATIONS
1	High-pressure synthesis of nanomaterials with exotic phases. , 2022, , .		0
2	Large magnetoresistance and unexpected low thermal conductivity in topological semimetal CrP4 single crystal. Applied Physics A: Materials Science and Processing, 2022, 128, 1.	1.1	3
3	Pressured-induced superconducting phase with large upper critical field and concomitant enhancement of antiferromagnetic transition in EuTe2. Nature Communications, 2022, 13, .	5.8	11
4	The Remarkable Anisotropic Compressibility and Metallic Cr ξ Cr Chains in Topological Semimetal CrP ₄ under High Pressure. Physica Status Solidi (B): Basic Research, 2021, 258, 2000544.	0.7	2
5	Superconductivity in chromium nitrides Pr ₃ Cr _{10-x} N ₁₁ with strong electron correlations. National Science Review, 2020, 7, 21-26.	4.6	12
6	Pressure-induced band-gap closure and metallization in two-dimensional transition metal halide CdI ₂ . Applied Materials Today, 2020, 18, 100532.	2.3	9
7	Raman spectroscopy and lattice dynamical stability study of 2D ferromagnetic semiconductor Cr ₂ Ge ₂ Te ₆ under high pressure. Journal of Alloys and Compounds, 2020, 819, 153368.	2.8	14
8	High-Pressure Crystal Growth, Superconducting Properties, and Electronic Band Structure of Nb ₂ P ₅ . Chemistry of Materials, 2020, 32, 8781-8788.	3.2	17
9	Magnetic critical behavior of the van der Waals Fe ₅ GeTe ₂ crystal with near room temperature ferromagnetism. Scientific Reports, 2020, 10, 15345.	1.6	35
10	Coupled magnetic and structural phase transitions in the antiferromagnetic polar metal $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle \text{Pb} \langle \text{mml:mi} \rangle \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle \text{mathvariant="normal"} \rangle \text{O} \langle \text{mml:mi} \rangle \langle \text{mml:mn} \rangle 6 \langle \text{mml:mn} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle \text{mathvariant="normal"} \rangle$ under pressure. Physical Review B, 2020, 102, .	1.1	5
11	Unique 2D \leftrightarrow 3D Structure Transformations in Trichalcogenide CrSiTe ₃ under High Pressure. Journal of Physical Chemistry C, 2020, 124, 15600-15606.	1.5	15
12	Pressure-induced superconductivity and topological phase transitions in the topological nodal-line semimetal SrAs ₃ . Npj Quantum Materials, 2020, 5, .	1.8	27
13	Bandgap widening by pressure-induced disorder in two-dimensional lead halide perovskite. Applied Physics Letters, 2020, 116, 101901.	1.5	12
14	Magnetic exchange induced Weyl state in a semimetal EuCd ₂ Sb ₂ . APL Materials, 2020, 8, .	2.2	37
15	Pressure-Induced Dimerization of C ₆₀ at Room Temperature as Revealed by an In Situ Spectroscopy Study Using an Infrared Laser. Crystals, 2020, 10, 182.	1.0	4
16	Pressure-Induced Two-Color Photoluminescence and Phase Transition of Two-Dimensional Layered MnCl ₂ . Journal of Physical Chemistry C, 2020, 124, 23317-23323.	1.5	6
17	Magnetotransport and $\langle \text{ab initio} \rangle$ calculation studies on the layered semimetal $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \text{CaA} \langle \text{mml:mi} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle \text{mathvariant="normal"} \rangle \text{I} \langle \text{mml:mi} \rangle \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle \text{mathvariant="normal"} \rangle \text{S} \langle \text{mml:mi} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle \text{mathvariant="normal"} \rangle \text{i} \langle \text{mml:mi} \rangle \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle \text{mathvariant="normal"} \rangle$ hosting multiple nontrivial topological states. Physical Review B, 2020, 101, .	1.1	7
18	Understanding CrGeTe ₃ : an abnormal phase change material with inverse resistance and density contrast. Journal of Materials Chemistry C, 2019, 7, 9025-9030.	2.7	28

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19	Robust magnetoresistance in TaAs ₂ under pressure up to about 37 GPa. Applied Physics Letters, 2019, 115, 122403.	1.5	5
20	Quantum oscillations and nontrivial topological state in a compensated semimetal TaP . Physical Review B, 2019, 100, .	1.5	5
21	Pressure-Induced Structural Phase Transition and a Special Amorphization Phase of Two-Dimensional Ferromagnetic Semiconductor $\text{Cr}_2\text{Ge}_2\text{Te}_6$. Journal of Physical Chemistry C, 2019, 123, 13885-13891.	1.5	35
22	Recent progress on high-pressure and high-temperature studies of fullerenes and related materials. Matter and Radiation at Extremes, 2019, 4, .	1.5	34
23	The experimental compression behavior of platinum hydride to 128 GPa. Materials Letters, 2019, 249, 84-86.	1.3	5
24	Stoichiometric evolutions of PH ₃ under high pressure: implication for high- <i>T_c</i> superconducting hydrides. National Science Review, 2019, 6, 524-531.	4.6	28
25	Superconductivity at 4.6 K in the Cr-based nitride $\text{La}_3\text{Cr}_{10}\text{N}_{11}$. Europhysics Letters, 2019, 128, 67002.	0.7	2
26	Pressure-induced electronic anomaly and multiband superconductivity in the doped topological insulator $\text{N}_x\text{Bi}_2\text{Te}_3$. Physical Review B, 2019, 100, .	1.1	7
27	Li-ion battery material under high pressure: amorphization and enhanced conductivity of $\text{Li}_4\text{Ti}_5\text{O}_{12}$. National Science Review, 2019, 6, 239-246.	4.6	49
28	Size-dependent phase transition of Er_2O_3 under high pressure. Applied Physics Letters, 2018, 112, 143102.	1.5	10
29	Solids, liquids, and gases under high pressure. Reviews of Modern Physics, 2018, 90, .	16.4	337
30	Pressure-induced isostructural phase transition and charge transfer in superconducting FeSe. Journal of Alloys and Compounds, 2018, 767, 811-819.	2.8	19
31	Pressure-induced structural and semiconductor-semiconductor transitions in $\text{C}_x\text{O}_{0.5}\text{Mg}$. Physical Review B, 2018, 98, .	1.1	20
32	Unexpected Semimetallic BiS_2 at High Pressure and High Temperature. Journal of Physical Chemistry Letters, 2018, 9, 5785-5791.	2.1	12
33	X-ray diffraction and spectroscopy study of nano- Eu_2O_3 structural transformation under high pressure. Journal of Alloys and Compounds, 2017, 701, 542-548.	2.8	18
34	Structural phase transitions of $(\text{Bi}_x\text{Sb}_{1-x})_2(\text{Te}_y\text{Se}_{3-y})_3$ compounds under high pressure and the influence of the atomic radius on the compression processes of tetradymites. Physical Chemistry Chemical Physics, 2017, 19, 2207-2216.	1.3	18
35	Pressure-induced structural transitions of a room temperature ionic liquid 1-ethyl-3-methylimidazolium chloride. Journal of Chemical Physics, 2017, 146, .	1.2	16
36	Structural evolution behavior of manganese monophosphide under high pressure: experimental and theoretical study. Journal of Physics Condensed Matter, 2017, 29, 254002.	0.7	4

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37	Impact of Pressure on the Resonant Bonding in Chalcogenides. <i>Journal of Physical Chemistry C</i> , 2017, 121, 25447-25454.	1.5	25
38	Quasi 3D polymerization in C60 bilayers in a fullerene solvate. <i>Carbon</i> , 2017, 124, 499-505.	5.4	23
39	Pressure-Induced Crystallization and Phase Transformation of Para-xylene. <i>Scientific Reports</i> , 2017, 7, 5321.	1.6	18
40	Lattice dynamics in monolayer and few-layer SnSe2. <i>Physical Review B</i> , 2017, 96, .	1.1	22
41	Photoluminescence and phase transition in Er2O3 under high pressure. <i>Journal of Alloys and Compounds</i> , 2017, 725, 941-945.	2.8	19
42	Pressure-induced phase transitions of exposed curved surface nano-TiO2 with high photocatalytic activity. <i>Journal of Applied Physics</i> , 2016, 119, .	1.1	14
43	Correlated structural and electronic phase transformations in transition metal chalcogenide under high pressure. <i>Journal of Applied Physics</i> , 2016, 119, .	1.1	5
44	Structural Phase Transitions and Metallized Phenomena in Arsenic Telluride under High Pressure. <i>Inorganic Chemistry</i> , 2016, 55, 3907-3914.	1.9	17
45	Phase transformation and fluorescent enhancement of ErF3 at high pressure. <i>Solid State Communications</i> , 2016, 242, 30-35.	0.9	6
46	High-pressure synchrotron Mössbauer and X-ray diffraction studies: Exploring the structure-related valence fluctuation in EuNi2P2. <i>Physica B: Condensed Matter</i> , 2016, 501, 101-105.	1.3	4
47	Crystal structure and transporting properties of Bi2S3 under high pressure: Experimental and theoretical studies. <i>Journal of Alloys and Compounds</i> , 2016, 688, 329-335.	2.8	36
48	The behaviors of anatase and TiO2(B) phase coexisting nanosheets under high pressure. <i>Radiation Physics and Chemistry</i> , 2016, 120, 1-6.	1.4	13
49	Structural phase transitions in Bi2Se3 under high pressure. <i>Scientific Reports</i> , 2015, 5, 15939.	1.6	56
50	Reversing the Resistivity Contrast in the Phase-Change Memory Material GeSb2Te4 Using High Pressure. <i>Advanced Electronic Materials</i> , 2015, 1, 1500240.	2.6	19
51	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.	1.5	24
52	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.	3.3	13
53	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.	1.9	35
54	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.	6.6	303

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55	Conventional empirical law reverses in the phase transitions of 122-type iron-based superconductors. Scientific Reports, 2014, 4, 7172.	1.6	16
56	Pressure-Induced Amorphization in Single-Crystal Ta ₂ O ₅ Nanowires: A Kinetic Mechanism and Improved Electrical Conductivity. Journal of the American Chemical Society, 2013, 135, 13947-13953.	6.6	70
57	<i>In situ</i> high-pressure synchrotron X-ray diffraction study of the structural stability in the intermetallic compound Mn ₂ Sb. Physica Status Solidi (B): Basic Research, 2012, 249, 2239-2243.	0.7	3
58	High pressure powder X-ray diffraction study of Cr ₂ As and pressure-induced structural phase transition. Solid State Communications, 2012, 152, 509-512.	0.9	9
59	Pressure-Induced Isostructural Phase Transition and Correlation of FeAs Coordination with the Superconducting Properties of 111-Type Na _{1-x} FeAs. Journal of the American Chemical Society, 2011, 133, 7892-7896.	6.6	55
60	Size-Dependent Amorphization of Nanoscale Y_2O_3 at High Pressure. Physical Review Letters, 2010, 105, 095701.	2.9	100
61	High-pressure induced phase transitions of Y ₂ O ₃ and Y ₂ O ₃ :Eu ³⁺ . Applied Physics Letters, 2009, 94, .	1.5	74
62	Dehydro-Diels-Alder reaction and diamondization of bowl-shaped clusters C ₁₈ Te ₃ Br ₄ (Bu-O) ₆ . Nano Research, 0, , 1.	5.8	2