

# Zengming Zhang

## List of Publications by Year in descending order

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79  
papers

1,111  
citations

393982

19  
h-index

525886

27  
g-index

80  
all docs

80  
docs citations

80  
times ranked

1512  
citing authors

#	ARTICLE	IF	CITATIONS
1	Multiple yet switchable hydrogen-bonded organic frameworks with white-light emission. <i>Nature Communications</i> , 2022, 13, 1882.	5.8	61
2	Anomalous Octahedron Distortion of Bi-Alloyed Cs <sub>2</sub> AgInCl <sub>6</sub> Crystal via XRD, Raman, Huangâ€Rhs Factor, and Photoluminescence. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 9572-9578.	2.1	60
3	Heat-Induced Solidâ€Solid Phase Transformation of TKX-50. <i>Journal of Physical Chemistry C</i> , 2017, 121, 8262-8271.	1.5	42
4	Tm <sup>3+</sup> /Dy <sup>3+</sup> /Eu <sup>3+</sup> (Sm <sup>3+</sup> ) tri-activated Y <sub>2</sub> WO <sub>6</sub> as one potential single-phase phosphor for WLEDs. <i>Journal of Alloys and Compounds</i> , 2019, 778, 942-950.	2.8	35
5	Possible Topological Hall Effect above Room Temperature in Layered Cr <sub>1.2</sub> Te <sub>2</sub> Ferromagnet. <i>Nano Letters</i> , 2021, 21, 4280-4286.	4.5	35
6	Nature-Mimic ZnO Nanoflowers Architecture: Chalcogenide Quantum Dots Coupling with ZnO/ZnTiO <sub>3</sub> Nanoheterostructures for Efficient Photoelectrochemical Water Splitting. <i>Journal of Physical Chemistry C</i> , 2017, 121, 21096-21104.	1.5	32
7	Pressure-induced modification of the anomalous Hall effect in layered $\text{Fe}_3\text{Te}_2$ . <i>Physical Review B</i> , 2019, 100, .		
8	Pressure- and Temperature-Dependent Structural Stability of LLM-105 Crystal. <i>Journal of Physical Chemistry C</i> , 2019, 123, 1110-1119.	1.5	30
9	Colossal Anomalous Hall Effect in Ferromagnetic van der Waals CrTe <sub>2</sub> . <i>ACS Nano</i> , 2021, 15, 9759-9763.	7.3	30
10	Raman and luminescence studies on phase transition of EuNbO <sub>4</sub> under high pressure. <i>Journal of Rare Earths</i> , 2014, 32, 787-791.	2.5	27
11	Significant perpendicular magnetic anisotropy in room-temperature layered ferromagnet of Cr-intercalated CrTe <sub>2</sub> . <i>2D Materials</i> , 2021, 8, 031003.	2.0	27
12	Upconversion luminescence of NaYF <sub>4</sub> :Yb,Er nanocrystals with high uniformity. <i>Journal of Rare Earths</i> , 2014, 32, 802-805.	2.5	26
13	Laser effects on phase transition for cubic Sb <sub>2</sub> O <sub>3</sub> microcrystals under high pressure. <i>Journal of Materials Chemistry C</i> , 2017, 5, 5451-5457.	2.7	26
14	Pressure-induced topological phase transitions and structural transition in 1T-TiTe <sub>2</sub> single crystal. <i>Applied Physics Letters</i> , 2018, 112, .	1.5	26
15	Pressure and Temperature Study on the Structural Stability of GdNbO <sub>4</sub> :Eu <sup>3+</sup> . <i>Journal of Physical Chemistry C</i> , 2017, 121, 14787-14794.	1.5	25
16	Raman studies of hexagonal MoO <sub>3</sub> at high pressure. <i>Physica Status Solidi (B): Basic Research</i> , 2011, 248, 1119-1122.	0.7	24
17	High-temperature Raman and FTIR study of aragonite-group carbonates. <i>Physics and Chemistry of Minerals</i> , 2019, 46, 51-62.	0.3	24
18	Revealing the role of oxygen vacancies on the phase transition of VO <sub>2</sub> film from the optical-constant measurements. <i>RSC Advances</i> , 2018, 8, 19151-19156.	1.7	23

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19	Facile fabrication of infrared photodetector using metastable vanadium dioxide VO <sub>2</sub> (B) nanorod networks. Applied Physics Letters, 2017, 111, .	1.5	21
20	Effect of pressure gradient and new phases for 1,3,5-trinitrohexahydro- <i>s</i> -triazine (RDX) under high pressures. Physical Chemistry Chemical Physics, 2018, 20, 14374-14383.	1.3	21
21	Thermally stable Na <sub>3.6</sub> Y <sub>1.8</sub> (PO <sub>4</sub> ) <sub>3</sub> :Eu <sup>3+</sup> phosphor, luminescent properties and application in WLEDs. Journal of Alloys and Compounds, 2020, 821, 153513.	2.8	20
22	Growth and Characterization of $\hat{I}^2$ -RDX Single-Crystal Particles. Journal of Physical Chemistry C, 2017, 121, 17586-17594.	1.5	18
23	Critical behavior in the half-metallic Heusler alloy $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"} \langle \text{mml:msub} \rangle \langle \text{mml:mi mathvariant="normal"} \rangle \text{Co} \langle \text{mml:mi} \rangle \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle \text{TiSn} \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle .$ Physical Review B, 2019, 100, .	1.1	18
24	Temperature dependent optical properties of SnO <sub>2</sub> film study by ellipsometry. Optical Materials Express, 2019, 9, 3691.	1.6	18
25	Prediction of $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"} \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle \text{MnSiTe} \langle \text{mml:mi} \rangle \langle \text{mml:mn} \rangle 3 \langle \text{mml:mn} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mi} \rangle$ as an intrinsic layered half-metal. Physical Review B, 2020, 101, .		
26	Na <sup>+</sup> -Driven Nucleation of NaYF <sub>4</sub> :Yb,Er Nanocrystals and Effect of Temperature on Their Structural Transformations and Luminescent Properties. Journal of Physical Chemistry C, 2018, 122, 23242-23250.	1.5	16
27	Pressure-Induced Conformer Modifications and Electronic Structural Changes in 1,3,5-Triamino-2,4,6-trinitrobenzene (TATB) up to 20 GPa. Journal of Physical Chemistry C, 2018, 122, 15861-15867.	1.5	16
28	Magneto-transport and Shubnikov-de Haas oscillations in the layered ternary telluride topological semimetal candidate Ta <sub>3</sub> SiTe <sub>6</sub> . Applied Physics Letters, 2020, 116, .	1.5	15
29	Defect Origin of Emission in CsCu <sub>2</sub> I <sub>3</sub> and Pressure-Induced Anomalous Enhancement. Journal of Physical Chemistry Letters, 2021, 12, 317-323.	2.1	15
30	In-situ high-temperature vibrational spectra for synthetic and natural clinohumite: Implications for dense hydrous magnesium silicates in subduction zones. American Mineralogist, 2019, 104, 53-63.	0.9	14
31	Pressure and temperature dependent up-conversion properties of Yb <sup>3+</sup> -Er <sup>3+</sup> co-doped BaBi <sub>4</sub> Ti <sub>4</sub> O <sub>15</sub> ferroelectric ceramics. Journal of Rare Earths, 2014, 32, 879-883.	2.5	13
32	In Situ Monitoring of Thermal Degradation of CH <sub>3</sub> NH <sub>3</sub> Pb <sub>3</sub> Films by Spectroscopic Ellipsometry. Journal of Physical Chemistry C, 2019, 123, 1362-1369.	1.5	13
33	Fast-Response Metal-Semiconductor-Metal Junction Ultraviolet Photodetector Based on ZnS:Mn Nanorod Networks via a Cost-Effective Method. ACS Omega, 2021, 6, 32930-32937.	1.6	13
34	White light emission of Eu <sup>3+</sup> /Ag co-doped Y <sub>2</sub> Si <sub>2</sub> O <sub>7</sub> . Journal of Rare Earths, 2014, 32, 779-786.	2.5	12
35	Structure transformation and remarkable site-distribution modulation of Eu <sup>3+</sup> ions in CaMoO <sub>4</sub> :Eu <sup>3+</sup> nanocrystals under high pressure. CrystEngComm, 2015, 17, 7905-7914.	1.3	12
36	Does increasing pressure always accelerate the condensed material decay initiated through bimolecular reactions? A case of the thermal decomposition of TKX-50 at high pressures. Physical Chemistry Chemical Physics, 2017, 19, 23309-23317.	1.3	12

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37	Cyclic Phase Transition from Hexagonal to Orthorhombic Then Back to Hexagonal of $\text{EuF}_3$ While Loading Uniaxial Pressure and under High Temperature. <i>Journal of Physical Chemistry C</i> , 2016, 120, 18780-18787.	1.5	11
38	Multiple magnetic phase transitions, electrical and optical properties of $\text{FeTe}_2$ single crystals. <i>Journal of Physics Condensed Matter</i> , 2020, 32, 035808.	0.7	11
39	Itinerant magnetism in the half-metallic Heusler compound $\text{Co}_2\text{HfSn}$ : Evidence from critical behavior combined with first-principles calculations. <i>Physical Review B</i> , 2021, 103, .	1.1	11
40	Phase Confirmation and Equation of State of $\hat{\Gamma}^2$ -HMX under 40 GPa. <i>Journal of Physical Chemistry C</i> , 2019, 123, 30121-30128.	1.5	10
41	Electronic Structure of LLM-105 Crystal under High Pressure and Low Temperature. <i>Journal of Physical Chemistry C</i> , 2020, 124, 2399-2405.	1.5	10
42	Enhanced PEC Water Splitting Performance of Silver Nanoparticle-Coated CdS Nanowire Photoanodes: The Role of Silver Deposition. <i>Journal of Physical Chemistry C</i> , 2021, 125, 7542-7551.	1.5	10
43	Phase Transition Routes for $\hat{\Gamma}_\mu$ - and $\hat{\Gamma}^3$ -CL-20 Crystals under High Pressures of up to 60 GPa. <i>Journal of Physical Chemistry C</i> , 2020, 124, 5061-5068.	1.5	9
44	Observation of superconductivity accompanying the pressure-induced structural phase transition in LaSb. <i>Physical Review B</i> , 2020, 101, .	1.1	9
45	Pressure-Induced Phase Transition of $\hat{\Gamma}^2$ -RDX Single Crystals. <i>Journal of Physical Chemistry C</i> , 2021, 125, 6418-6426.	1.5	9
46	Monte-Carlo simulation of x-ray photoelectron emission from silver. <i>Surface and Interface Analysis</i> , 2003, 35, 818-823.	0.8	8
47	Comparison of Energy-Loss Functions from Reflection Electron Energy-Loss Spectroscopy Spectra with Surface and Bulk Energy-Loss Functions: in Case of Cu. <i>Japanese Journal of Applied Physics</i> , 2004, 43, 7137-7143.	0.8	8
48	Monte-Carlo simulation of secondary electron emission by x-ray irradiation?an application of x-ray absorption near-edge structure (XANES). <i>Surface and Interface Analysis</i> , 2004, 36, 1413-1416.	0.8	8
49	Raman studies of selenium nanowires under high pressure. <i>Materials Research Bulletin</i> , 2011, 46, 350-354.	2.7	8
50	Characterizations, structure and optical properties of $\text{ZnWO}_4$ :Eu nanorods under high temperature. <i>Surface and Interface Analysis</i> , 2014, 46, 1151-1155.	0.8	8
51	Effective energy loss functions of Mo and Ta derived from reflection electron energy loss spectra. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2007, 159, 62-65.	0.8	7
52	High-Pressure Phase Transition of Micro- and Nanoscale $\text{HoVO}_4$ and High-Pressure Phase Diagram of $\text{REVO}_4$ with RE Ionic Radius. <i>ACS Omega</i> , 2018, 3, 18227-18233.	1.6	7
53	Pressure-Dependent Luminescence and Absorption in 3,3'-Diamino-4,4'-azoxyfurazan: Secondary Bonding Interaction in Molecular Crystals. <i>Journal of Physical Chemistry C</i> , 2019, 123, 8731-8739.	1.5	7
54	Angular distribution of X-ray photoelectrons emitted from silver. <i>Surface Science</i> , 2005, 592, 18-24.	0.8	6

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55	Irreversible temperature quenching and anti-quenching of photoluminescence of ZnS/CdS:Mn/ZnS quantum well quantum dots. <i>Chemical Physics Letters</i> , 2015, 625, 147-150.	1.2	6
56	Exact interband transition energies of VO <sub>2</sub> films. <i>Thin Solid Films</i> , 2018, 645, 160-165.	0.8	6
57	Wide-range ratiometric upconversion luminescence thermometry based on non-thermally coupled levels of Er in high-temperature cubic phase NaYF <sub>4</sub> :Yb, Er. <i>Optics Letters</i> , 2019, 44, 4678.	1.7	6
58	Analysis of residual stress fields from fictive temperature distributions within heat-affected zones of fused silica. <i>Optics Express</i> , 2021, 29, 42511.	1.7	6
59	Critical behavior and phase diagram of layered ferromagnetic $\text{FeTa}_3\text{S}_6$ single crystals. <i>Physical Review B</i> , 2022, 105, .	1.1	5
60	Effective depths for surface excitation derived by reflection electron energy-loss spectroscopy analysis. <i>Surface and Interface Analysis</i> , 2004, 36, 334-338.	0.8	4
61	Method for a quick estimation of energy dependent reflection electron energy loss spectroscopy spectra for Al and Si. <i>Physica B: Condensed Matter</i> , 2013, 423, 64-68.	1.3	4
62	Pressure-Induced In Situ Construction of P-CO/HNIW Explosive Composites with Excellent Laser Initiation and Detonation Performance. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 20718-20727.	4.0	4
63	Pressure Effects on the Thermal Decomposition of LLM-105 Crystal. <i>Physical Chemistry Chemical Physics</i> , 2022, , .	1.3	4
64	Constructing a Spectral Down Converter to Enhance Cu(In,Ga)Se <sub>2</sub> Solar Cell Performance Using Yttrium Aluminum Garnet:Ce <sup>3+</sup> Ceramics. <i>Solar Rrl</i> , 2020, 4, 1900518.	3.1	3
65	Pressure-Induced Anomalous Emission Behaviors of MnS/ZnS Quantum Dots. <i>Journal of Physical Chemistry C</i> , 2021, 125, 9281-9286.	1.5	3
66	Experimental Observation of New Phase, Determination of Loading-Path of Amorphous State and Loading-Path Dependent Phase Transitions for Pyridine around Freezing Pressure via Raman Modes in Low Wavenumber. <i>Journal of Physical Chemistry C</i> , 2021, 125, 11159-11165.	1.5	3
67	Temperature Evolution of Optical Behaviors of $\hat{\nu}^2$ -HMX Single Crystals from Spectroscopy Ellipsometry. <i>Journal of Physical Chemistry C</i> , 2021, 125, 12390-12397.	1.5	3
68	Correlation between Photoluminescence Properties of Surface Defects and Laser-Induced Damage Threshold of Fused Silica. <i>Laser and Particle Beams</i> , 2021, 2021, .	0.4	3
69	Quasi-Static Two-Dimensional Infrared Spectra of the Carboxyhemoglobin Subsystem under Electric Fields: A Theoretical Study. <i>Journal of Physical Chemistry B</i> , 2020, 124, 9570-9578.	1.2	3
70	RKKY-type in-plane ferromagnetism in layered $\text{Mn}_4\text{NbS}_4$ single crystals. <i>Physical Review B</i> , 2022, 105, .	1.1	3
71	Pressure-induced irreversible phase transitions of the monoclinic GdOOH nanorods at ambient temperature. <i>Chemical Physics Letters</i> , 2014, 612, 138-142.	1.2	2
72	Temperature dependent optical properties of LaCoO <sub>3</sub> /SrTiO <sub>3</sub> thin film studied by spectroscopic ellipsometry. <i>AIP Advances</i> , 2020, 10, 035117.	0.6	2

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73	Initial decomposition step and bimolecular hydrogen transfer of 3,3'-diamino-4,4'-azoxyfurazan under high pressure and high temperature. <i>Combustion and Flame</i> , 2022, 240, 111981.	2.8	2
74	Study of X-ray absorption near-edge structure with a photoemission electron microscope. <i>Surface and Interface Analysis</i> , 2006, 38, 574-578.	0.8	1
75	Pressure-Induced Reverse Reaction of the Photochemical Decomposition of Germanium Tetraiodide Molecular Crystal. <i>Journal of Physical Chemistry C</i> , 2013, 117, 25012-25018.	1.5	1
76	Selective functionalization of silicon surface controlled by metastable helium atom beam for patterning chemisorbed monolayer molecular assemblies. <i>Surface and Interface Analysis</i> , 2014, 46, 1196-1199.	0.8	1
77	Time-Resolved Photoluminescence Study of MnS/ZnS Core/Shell Quantum Dots at High Pressure and Low Temperature. <i>Journal of Physical Chemistry C</i> , 2021, 125, 22354-22359.	1.5	1
78	Strain-induced conductivity accelerated recoveries in LaAlO <sub>3</sub> /SrTiO <sub>3</sub> heterostructure with millimeter scale. <i>RSC Advances</i> , 2018, 8, 37804-37810.	1.7	0
79	Inference of a "Hot Ice" Layer in Nitrogen-Rich Planets: Demixing the Phase Diagram and Phase Composition for Variable Concentration Helium-Nitrogen Mixtures Based on Isothermal Compression. <i>Journal of Physical Chemistry A</i> , 2022, 126, 3745-3757.	1.1	0