Zhengtao Xu

List of Publications by Year
in descending order

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110 papers	4,900 citations	87888 38 h-index	98798 67 g-index
122 all docs	122 docs citations	122 times ranked	5838 citing authors

#	Article	IF	Citations
1	Waterâ€assisted sintering of silica: Densification mechanisms and their possible implications in biomineralization. Journal of the American Ceramic Society, 2022, 105, 2945-2954.	3.8	8
2	A facile approach for hierarchical architectures of an enzymeâ€“metalâ€“organic framework biocatalyst with high activity and stability. Nanoscale, 2022, 14, 3929-3934.	5.6	7
3	Dense Dithiolene Units on Metalâ€“Organic Frameworks for Mercury Removal and Superprotonic Conduction. ACS Applied Materials & Interfaces, 2022, 14, 1070-1076.	8.0	17
4	Mineral Hydrogel from Inorganic Salts: Biocompatible Synthesis, Allâ€inâ€One Charge Storage, and Possible Implications in the Origin of Life. Advanced Functional Materials, 2022, 32, .	14.9	14
5	Enhancement of Protein Crystallization Using Nano-Sized Metalâ€“Organic Framework. Crystals, 2022, 12, 578.	2.2	1
6	Telltale diamagnetism at 50â€‰K of a coordination polymer system. Materials Research Letters, 2022, 10, 496-500.	8.7	2
7	Defect-enhanced selective ion transport in an ionic nanocomposite for efficient energy harvesting from moisture. Energy and Environmental Science, 2022, 15, 2601-2609.	30.8	22
8	Covalent Triazine Frameworks Embedded with Ir Complexes for Enhanced Photocatalytic Hydrogen Evolution. ACS Applied Energy Materials, 2022, 5, 7473-7478.	5.1	10
9	Superprotonic conduction of intrinsically zwitterionic microporous polymers based on easy-to-make squaraine, croconaine and rhodizaine dyes. Nanoscale Advances, 2022, 4, 2922-2928.	4.6	6
10	Coordinationâ€Driven Assembly of Metalâ€“Organic Framework Coating for Catalytically Active Superhydrophobic Surface. Advanced Materials Interfaces, 2021, 8, 2001202.	3.7	21
11	Zwitterionic ultrathin covalent organic polymers for high-performance electrocatalytic carbon dioxide reduction. Applied Catalysis B: Environmental, 2021, 284, 119750.	20.2	35
12	Conjugated crosslinks boost the conductivity and stability of a single crystalline metalâ€“organic framework. Chemical Communications, 2021, 57, 187-190.	4.1	10
13	Linker Deficiency, Aromatic Ring Fusion, and Electrocatalysis in a Porous Ni₈-Pyrazolate Network. Inorganic Chemistry, 2021, 60, 161-166.	4.0	12
14	The Coordination Chemistry of Metal-Organic Frameworks: Metalation, Catalysis and Beyond. , 2021, , 99-117.		1
15	Invisible Silver Guests Boost Order in a Framework That Cyclizes and Deposits Ag₃Sb Nanodots. Inorganic Chemistry, 2021, 60, 5757-5763.	4.0	4
16	Uniting Form and Function, Stability and Reactivity in Open Framework Materials. Chemistry Letters, 2021, 50, 627-631.	1.3	4
17	Liquefaction-induced plasticity from entropy-boosted amorphous ceramics. Applied Materials Today, 2021, 23, 101011.	4.3	3
18	A Ferrocene Metalâ€“Organic Framework Solid for Fe-Loaded Carbon Matrices and Nanotubes: High-Yield Synthesis and Oxygen Reduction Electrocatalysis. Inorganic Chemistry, 2021, 60, 17315-17324.	4.0	4

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19	Supervariate Ceramics: Gelatinous and Monolithic Ceramics Fabricated under Ambient Conditions. Advanced Engineering Materials, 2021, 23, .	3.5	2
20	Halogenâ€“C₂H₂ Binding in Ultramicroporous Metalâ€“Organic Frameworks (MOFs) for Benchmark C₂H₂/CO₂ Separation Selectivity. Chemistry - A European Journal, 2020, 26, 4923-4929.	3.3	72
21	Donorâ€“acceptor covalent organic frameworks of nickel(<scp>ii</scp>) porphyrin for selective and efficient CO₂ reduction into CO. Dalton Transactions, 2020, 49, 15587-15591.	3.3	26
22	2D metalâ€“organic framework for stable perovskite solar cells with minimized lead leakage. Nature Nanotechnology, 2020, 15, 934-940.	31.5	258
23	Crystallinity after decarboxylation of a metalâ€“carboxylate framework: indestructible porosity for catalysis. Dalton Transactions, 2020, 49, 11902-11910.	3.3	10
24	Porphyrin Grafting on a Mercapto-Equipped Zr(IV)-Carboxylate Framework Enhances Photocatalytic Hydrogen Production. Inorganic Chemistry, 2020, 59, 12643-12649.	4.0	18
25	Conjugated porous polymers: incredibly versatile materials with far-reaching applications. Chemical Society Reviews, 2020, 49, 3981-4042.	38.1	162
26	Solution-Based Comproportionation Reaction for Facile Synthesis of Black TiO₂ Nanotubes and Nanoparticles. ACS Applied Energy Materials, 2020, 3, 6087-6092.	5.1	12
27	Building Conjugated Donorâ€“Acceptor Cross-Links into Metalâ€“Organic Frameworks for Photo- and Electroactivity. ACS Applied Materials & Interfaces, 2020, 12, 19201-19209.	8.0	9
28	Dense Alkyne Arrays of a Zr(IV) Metalâ€“Organic Framework Absorb Co₂(CO)₈ for Functionalization. Inorganic Chemistry, 2020, 59, 5626-5631.	4.0	18
29	An air-stable anionic two-dimensional semiconducting metal-thiolate network and its exfoliation into ultrathin few-layer nanosheets. Chemical Communications, 2020, 56, 3645-3648.	4.1	13
30	A Bumper Crop of Boiling-Water-Stable Metalâ€“Organic Frameworks from Controlled Linker Sulfuration. Inorganic Chemistry, 2020, 59, 7097-7102.	4.0	12
31	Frontispiece: Sulfur Chemistry for Stable and Electroactive Metal-Organic Frameworks: The Crosslinking Story. Chemistry - A European Journal, 2019, 25, .	3.3	4
32	A Porous and Solution-Processable Molecular Crystal Stable at 200 Â°C: The Surprising Donorâ€“Acceptor Impact. Crystal Growth and Design, 2019, 19, 7411-7419.	3.0	2
33	In Situ Observations of Abnormal Pore Size Changes of a Zirconium Based Metal-Organic Framework Using Atomic Resolution S/TEM and EELS. Microscopy and Microanalysis, 2019, 25, 1486-1487.	0.4	1
34	Rare earth-free composites of carbon dots/metalâ€“organic frameworks as white light emitting phosphors. Journal of Materials Chemistry C, 2019, 7, 2207-2211.	5.5	68
35	Symmetrically backfolded molecules emulating the self-similar features of a Sierpinski triangle. Organic and Biomolecular Chemistry, 2019, 17, 6032-6037.	2.8	4
36	Sulfur Chemistry for Stable and Electroactive Metalâ€Organic Frameworks: The Crosslinking Story. Chemistry - A European Journal, 2019, 25, 8654-8662.	3.3	13

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37	Janus triple tripods build up a microporous manifold for HgCl₂ and I₂ uptake. Chemical Communications, 2019, 55, 5091-5094.	4.1	9
38	Anchoring Co^{II} Ions into a Thiolâ€Laced Metalâ€“Organic Framework for Efficient Visibleâ€Lightâ€Driven Conversion of CO₂ into CO. ChemSusChem, 2019, 12, 2166-2170.	6.8	58
39	A Thiol-Functionalized UiO-67-Type Porous Single Crystal: Filling in the Synthetic Gap. Inorganic Chemistry, 2019, 58, 1462-1468.	4.0	31
40	Photocatalytic cofactor regeneration involving triethanolamine revisited: The critical role of glycolaldehyde. Applied Catalysis B: Environmental, 2019, 243, 686-692.	20.2	36
41	Synthesis of a Thiol Building Block for the Crystallization of a Semiconducting Gyroidal Metal-sulfur Framework. Journal of Visualized Experiments, 2018, , .	0.3	0
42	Made in Water: A Stable Microporous Cu(I)-carboxylate Framework (CityU-7) for CO₂, Water, and Iodine Uptake. Inorganic Chemistry, 2018, 57, 4807-4811.	4.0	18
43	Improving stability against desolvation and mercury removal performance of Zr(<scp>iv</scp>)â€“carboxylate frameworks by using bulky sulfur functions. Journal of Materials Chemistry A, 2018, 6, 1648-1654.	10.3	43
44	Metal-Organic Frameworks for Heavy Metal Removal. Series on Chemistry, Energy and the Environment, 2018, , 377-410.	0.3	0
45	Single-Crystalline UiO-67-Type Porous Network Stable to Boiling Water, Solvent Loss, and Oxidation. Inorganic Chemistry, 2018, 57, 6198-6201.	4.0	21
46	Dense thiol arrays for metalâ€“organic frameworks: boiling water stability, Hg removal beyond 2 ppb and facile crosslinking. Journal of Materials Chemistry A, 2018, 6, 14566-14570.	10.3	52
47	Beadwork and Network: Strings of Silver Ions Stitch Large-Ï€ Pyrazolate Patches into a Two-dimensional Sheet. Crystal Growth and Design, 2018, 18, 3713-3718.	3.0	7
48	Dramatic improvement of stability by <i>in situ</i> linker cyclization of a metalâ€“organic framework. Chemical Communications, 2018, 54, 9470-9473.	4.1	19
49	Multiphaseâ€Assembly of Siloxane Oligomers with Improved Mechanical Strength and Waterâ€Enhanced Healing. Angewandte Chemie - International Edition, 2018, 57, 11242-11246.	13.8	129
50	Multiphaseâ€Assembly of Siloxane Oligomers with Improved Mechanical Strength and Waterâ€Enhanced Healing. Angewandte Chemie, 2018, 130, 11412-11416.	2.0	33
51	A semiconducting gyroidal metal-sulfur framework for chemiresistive sensing. Journal of Materials Chemistry A, 2017, 5, 16139-16143.	10.3	44
52	Mesoporous C-coated SnO_xnanosheets on copper foil as flexible and binder-free anodes for superior sodium-ion batteries. Journal of Materials Chemistry A, 2017, 5, 2243-2250.	10.3	33
53	A nanoporous graphene analog for superfast heavy metal removal and continuous-flow visible-light photoredox catalysis. Journal of Materials Chemistry A, 2017, 5, 20180-20187.	10.3	30
54	A Boilingâ€Waterâ€Stable, Tunable Whiteâ€Emitting Metalâ€“Organic Framework from Softâ€Imprint Synthesis. Chemistry - A European Journal, 2016, 22, 1597-1601.	3.3	33

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55	Improving the Loading Capacity of Metalâ€“Organic Framework Thin Films Using Optimized Linkers. ACS Applied Materials & Interfaces, 2016, 8, 24699-24702.	8.0	10
56	Complex Metalâ€“Organic Frameworks from Symmetrically Backfolded Dendrimers. ChemistrySelect, 2016, 1, 4075-4081.	1.5	5
57	Metalation Triggers Single Crystalline Order in a Porous Solid. Journal of the American Chemical Society, 2016, 138, 14852-14855.	13.7	48
58	Bestow metal foams with nanostructured surfaces via a convenient electrochemical method for improved device performance. Nano Research, 2016, 9, 2364-2371.	10.4	12
59	Anodic nanoporous SnO2 grown on Cu foils as superior binder-free Na-ion battery anodes. Journal of Power Sources, 2016, 307, 634-640.	7.8	64
60	Bio-inspired stabilization of sulfenyl iodide RS-I in a Zr(<scp>iv</scp>)-based metalâ€“organic framework. Dalton Transactions, 2016, 45, 5334-5338.	3.3	28
61	A minimalist fluorescent probe for differentiating Cys, Hcy and GSH in live cells. Chemical Science, 2016, 7, 256-260.	7.4	195
62	Facile synthesis of a conjugated microporous polymeric monolith via copper-free Sonogashiraâ€“Hagihara cross-coupling in water under aerobic conditions. Polymer Chemistry, 2015, 6, 7251-7255.	3.9	36
63	Extraction of palladium from nuclear waste-like acidic solutions by a metalâ€“organic framework with sulfur and alkene functions. Journal of Materials Chemistry A, 2015, 3, 3928-3934.	10.3	85
64	Room-temperature acetylene hydration by a Hg(<scp>ii</scp>)-laced metalâ€“organic framework. Chemical Communications, 2015, 51, 10941-10944.	4.1	43
65	Highly Polarizable Triiodide Anions (I₃^{â€“}) as Cross-Linkers for Coordination Polymers: Closing the Semiconductive Band Gap. Inorganic Chemistry, 2015, 54, 6087-6089.	4.0	14
66	In situ production of silver nanoparticles on an aldehyde-equipped conjugated porous polymer and subsequent heterogeneous reduction of aromatic nitro groups at room temperature. Chemical Communications, 2015, 51, 12197-12200.	4.1	45
67	Functional shakeup of metalâ€“organic frameworks: the rise of the sidekick. CrystEngComm, 2015, 17, 9254-9263.	2.6	20
68	Pd Uptake and H₂S Sensing by an Amphoteric Metalâ€“Organic Framework with a Soft Core and Rigid Side Arms. Angewandte Chemie - International Edition, 2014, 53, 14438-14442.	13.8	91
69	An electroactive porous network from covalent metalâ€“dithiolene links. Chemical Communications, 2014, 50, 3986-3988.	4.1	166
70	Selective Ag(I) Binding, H₂S Sensing, and White-Light Emission from an Easy-to-Make Porous Conjugated Polymer. Journal of the American Chemical Society, 2014, 136, 2818-2824.	13.7	117
71	Immobilization of Volatile and Corrosive Iodine Monochloride (ICl) and I₂ Reagents in a Stable Metalâ€“Organic Framework. Inorganic Chemistry, 2014, 53, 6837-6843.	4.0	39
72	Convenient Detection of Pd(II) by a Metalâ€“Organic Framework with Sulfur and Olefin Functions. Journal of the American Chemical Society, 2013, 135, 7807-7810.	13.7	113

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73	Effective Mercury Sorption by Thiol-Laced Metalâ€“Organic Frameworks: in Strong Acid and the Vapor Phase. Journal of the American Chemical Society, 2013, 135, 7795-7798.	13.7	492
74	White Light Emission and Second Harmonic Generation from Secondary Group Participation (SGP) in a Coordination Network. Journal of the American Chemical Society, 2012, 134, 1553-1559.	13.7	142
75	Thioether Side Chains Improve the Stability, Fluorescence, and Metal Uptake of a Metalâ€“Organic Framework. Chemistry of Materials, 2011, 23, 2940-2947.	6.7	145
76	Semirigid Aromatic Sulfoneâ€“Carboxylate Molecule for Dynamic Coordination Networks: Multiple Substitutions of the Ancillary Ligands. Inorganic Chemistry, 2011, 50, 7142-7149.	4.0	20
77	Metal-based photonic coatings from electrochemical methods. , 2010, , .		0
78	Reactions of H₂S with AgCl within a Porous Coordination Network. Inorganic Chemistry, 2010, 49, 7629-7631.	4.0	25
79	Coordination Networks from Cu Cations and Tetrakis(methylthio)benzenedicarboxylic Acid: Tunable Bonding Patterns and Selective Sensing for NH₃ Gas. Inorganic Chemistry, 2010, 49, 10191-10198.	4.0	23
80	Metal-Based Photonic Coatings from Electrochemical Deposition. Journal of the Electrochemical Society, 2009, 156, D508.	2.9	16
81	Building thiol and metal-thiolate functions into coordination nets: Clues from a simple molecule. Journal of Solid State Chemistry, 2009, 182, 1821-1826.	2.9	54
82	Networks of Hexagonal Hierarchy from a Self-Similar Tritopic Molecule. Crystal Growth and Design, 2009, 9, 1663-1665.	3.0	16
83	Flexible Thioetherâˆ’Ag(I) Interactions for Assembling Large Organic Ligands into Crystalline Networks. Crystal Growth and Design, 2009, 9, 1444-1451.	3.0	19
84	Shape-Selective Sorption and Fluorescence Sensing of Aromatics in a Flexible Network of Tetrakis[(4-methylthiophenyl)ethynyl]silane and AgBF₄. Chemistry of Materials, 2009, 21, 541-546.	6.7	47
85	Reversible uptake of HgCl2 in a porous coordination polymer based on the dual functions of carboxylate and thioether. Chemical Communications, 2009, , 5439.	4.1	91
86	Structural regularity and diversity in hybrids of aromatic thioethers and BiBr3: from discrete complexes to layers and 3D nets. Dalton Transactions, 2009, , 5083.	3.3	19
87	Mixed-Valence CuIICuI15I17 Cluster Builds up a 3D Metalâˆ’Organic Framework with Paramagnetic and Thermochromic Characteristics. Inorganic Chemistry, 2008, 47, 7948-7950.	4.0	49
88	Coordination Networks from a Bifunctional Molecule Containing Carboxyl and Thioether Groups. Inorganic Chemistry, 2008, 47, 7459-7461.	4.0	45
89	CuCN Pillars Induce Face-to-Face Ï€-Overlap of Anthracene-Based Thioether Molecules within a Hybrid Coordination Network. Crystal Growth and Design, 2008, 8, 1468-1470.	3.0	14
90	Multiple Bismuth(III)âˆ’Thioether Secondary Interactions Integrate Metalloporphyrin Ligands into Functional Networks. Inorganic Chemistry, 2007, 46, 4844-4849.	4.0	11

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91	Assembly of Large Aromatic Selenoether Ligands into Cubic and Non-interpenetrated (10, 3)-<i>a</i> Nets. Crystal Growth and Design, 2007, 7, 2542-2547.	3.0	15
92	Centripetal molecules as multifunctional building blocks for coordination networks. Chemical Communications, 2007, , 4779.	4.1	24
93	Three-Dimensional Nets from Star-Shaped Hexakis(arylthio)triphenylene Molecules and Silver(I) Salts. Inorganic Chemistry, 2006, 45, 1032-1037.	4.0	29
94	A selective review on the making of coordination networks with potential semiconductive properties. Coordination Chemistry Reviews, 2006, 250, 2745-2757.	18.8	92
95	Distinct hostâ€“guest interaction and subdued fluorescence in a coordination network of 2,3,6,7,10,11-hexakis(phenylthio)triphenylene and silver(I) triflate. Journal of Solid State Chemistry, 2006, 179, 3688-3694.	2.9	6
96	Small Amphiphilic Organics, Coordination Extended Solids, and Constant Curvature Structures. Accounts of Chemical Research, 2005, 38, 251-261.	15.6	66
97	Semiconductive Coordination Networks from Bismuth(III) Bromide and 1,2-Bis(methylthio)phenylacetylene-Based Ligands. Inorganic Chemistry, 2005, 44, 8855-8860.	4.0	25
98	Semiconductive Coordination Networks from 2,3,6,7,10,11-Hexakis(alkylthio)triphenylenes and Bismuth(III) Halides:Â Synthesis, Structureâˆ'Property Relations, and Solution Processing. Chemistry of Materials, 2005, 17, 4426-4437.	6.7	40
99	A Semiconductive Coordination Network Based on 2,3,6,7,10,11-Hexakis(methylthio)triphenylene and BiCl3. Crystal Growth and Design, 2005, 5, 423-425.	3.0	17
100	Fluorescent Coordination Networks of 2,3,6,7,10,11-Hexakis(phenylthio)triphenylene and Silver(I) Triflate. Inorganic Chemistry, 2004, 43, 8018-8022.	4.0	15
101	[(CH3)3NCH2CH2NH3]SnI4:Â A Layered Perovskite with Quaternary/Primary Ammonium Dications and Short Interlayer Iodineâˆ'Iodine Contacts. Inorganic Chemistry, 2003, 42, 1400-1402.	4.0	67
102	SnI42--Based Hybrid Perovskites Templated by Multiple Organic Cations:Â Combining Organic Functionalities through Noncovalent Interactions. Chemistry of Materials, 2003, 15, 3632-3637.	6.7	75
103	Semiconducting Perovskites (2-XC6H4C2H4NH3)2SnI4(X = F, Cl, Br):Â Steric Interaction between the Organic and Inorganic Layers. Inorganic Chemistry, 2003, 42, 2031-2039.	4.0	104
104	[CH3(CH2)11NH3]SnI3:Â A Hybrid Semiconductor with MoO3-type Tin(II) Iodide Layers. Inorganic Chemistry, 2003, 42, 6589-6591.	4.0	72
105	Structure Rationalization and Topology Prediction of Two-Distinct-Component Organic Crystals:Â The Role of Volume Fraction and Interface Topology. Journal of the American Chemical Society, 2002, 124, 121-135.	13.7	18
106	Hydrophilic-to-Hydrophobic Volume Ratios as Structural Determinant in Small-Length Scale Amphiphilic Crystalline Systems:â€‰ Silver Salts of Phenylacetylene Nitriles with Pendant Oligo(ethylene) Tj ETQq1 0 0 rgBT /Overlock 1	13.7	63
107	Porous Siloxane Linked Phenylacetylene Nitrile Silver Salts from Solid State Dimerization and Low Polymerization. Journal of the American Chemical Society, 2000, 122, 6871-6883.	13.7	57
108	Variable Pore Size, Variable Chemical Functionality, and an Example of Reactivity within Porous Phenylacetylene Silver Salts. Journal of the American Chemical Society, 1999, 121, 8204-8215.	13.7	215

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109	Coordination Networks of C3v and C2v Phenylacetylene Nitriles and Silver(I) Salts:â€‰ Interplay of Ligand Symmetry and Molecular Dipole Moments in the Solid State. Chemistry of Materials, 1999, 11, 1776-1783.	6.7	45
110	Supervariate Ceramics: Gelatinous and Monolithic Ceramics Fabricated under Ambient Conditions. Advanced Engineering Materials, 0, , 2100866.	3.5	7