Jian Wang

List of Publications by Year
in descending order

50 papers	1,403 citations	361413 20 h-index	345221 36 g-index
50 all docs	50 docs citations	50 times ranked	1312 citing authors

#	Article	IF	Citations
1	A practical field guide to thermoelectrics: Fundamentals, synthesis, and characterization. Applied Physics Reviews, 2018, 5, 021303.	11.3	223
2	Clathrate thermoelectrics. Materials Science and Engineering Reports, 2016, 108, 1-46.	31.8	160
3	Yb₁₄MgSb₁₁ and Ca₁₄MgSb₁₁â€”New Mg-Containing Zintl Compounds and Their Structures, Bonding, and Thermoelectric Properties. Chemistry of Materials, 2015, 27, 343-351.	6.7	89
4	Ba₂Si₃P₆: 1D Nonlinear Optical Material with Thermal Barrier Chains. Journal of the American Chemical Society, 2019, 141, 11976-11983.	13.7	66
5	Synthesis, Crystal and Electronic Structures, and Properties of the New Pnictide Semiconductors A₂CdPn₂ (A = Ca, Sr, Ba, Eu; Pn = P, As). Inorganic Chemistry, 2011, 50, 8020-8027.	4.0	48
6	Ca_{1â€“x}RE_xAg_{1â€“y}Sb (RE = La, Ce, Pr, Nd, Sm; 0 â‰¤ Tj ETQq0 0 0 rgBT /(Thermoelectric Performance. Journal of the American Chemical Society, 2013, 135, 11840-11848.	13.7	48
7	Twisted Kelvin Cells and Truncated Octahedral Cages in the Crystal Structures of Unconventional Clathrates, AM₂P₄ (A = Sr, Ba; M = Cu, Ni). Chemistry of Materials, 2015, 27, 4476-4484.	6.7	48
8	Complex coordinated functional groups: A great genes for nonlinear optical materials. Chinese Chemical Letters, 2022, 33, 2301-2315.	9.0	47
9	Elusive Î²-Zn8Sb7: A New Zinc Antimonide Thermoelectric. Journal of the American Chemical Society, 2015, 137, 12474-12477.	13.7	45
10	High-efficiency thermoelectric Ba₈Cu₁₄Ge₆P₂₆: bridging the gap between tetrel-based and tetrel-free clathrates. Chemical Science, 2017, 8, 8030-8038.	7.4	44
11	Unconventional Clathrates with Transition Metalâ€“Phosphorus Frameworks. Accounts of Chemical Research, 2018, 51, 31-39.	15.6	41
12	A₅Sn₂As₆ (A = Sr, Eu). Synthesis, Crystal and Electronic Structure, and Thermoelectric Properties. Inorganic Chemistry, 2012, 51, 5771-5778.	4.0	37
13	Anisotropic Thermal Properties of the Nonlinear Optical and Polar Oxide Material Na2TeW2O9. Crystal Growth and Design, 2011, 11, 3636-3641.	3.0	29
14	Unprecedented mid-infrared nonlinear optical materials achieved by crystal structure engineering, a case study of (KX)P₂S₆ (X = Sb, Bi, Ba). Chemical Science, 2022, 13, 2640-2648.	7.4	28
15	IIIâ€“V Clathrate Semiconductors with Outstanding Hole Mobility: Cs8In27Sb19 and A8Ga27Sb19 (A = Cs,) Tj ETQq1 1 0.784314 rgB	13.7	27
16	Distorted Phosphorus and Copper Square-Planar Layers in LaCu_{1+x}P₂ and LaCu₄P₃: Synthesis, Crystal Structure, and Physical Properties. Inorganic Chemistry, 2015, 54, 890-897.	4.0	26
17	Bulk growth, structure, and characterization of the new monoclinic TbCa₄O(BO₃)₃crystal. CrystEngComm, 2014, 16, 4008-4015.	2.6	23
18	Chemical Bonding and Transport Properties in Clathrates-I with Cuâ€“Znâ€“P Frameworks. Chemistry of Materials, 2018, 30, 3419-3428.	6.7	21

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19	Syntheses, crystal structure and physical properties of new Zintl phases Ba3T2As4 (T=Zn, Cd). Journal of Solid State Chemistry, 2013, 198, 6-9.	2.9	20
20	Synthesis, crystal structure, and thermoelectric properties of two new barium antimony selenides: Ba₂Sb₂Se₅and Ba₆Sb₇Se_{16.11}. Journal of Materials Chemistry C, 2015, 3, 9811-9818.	5.5	20
21	Synthesis, Crystal Structure, and Properties of La₄Zn₇P₁₀ and La₄Mg_{1.5}Zn_{8.5}P₁₂. Inorganic Chemistry, 2017, 56, 783-790.	4.0	20
22	A₂P₂S₆ (A = Ba and Pb): a good platform to study the polymorph effect and lone pair effect to form an acentric structure. Dalton Transactions, 2022, 51, 4522-4531.	3.3	19
23	A₁₀LaCdSb₉ (A=Ca, Yb): A Highly Complex Zintl System and the Thermoelectric Properties. Chemistry - an Asian Journal, 2013, 8, 251-257.	3.3	18
24	Enclathration of X@La4 Tetrahedra in Channels of Znâ€“P Frameworks in La3Zn4P6X (X = Cl, Br). Chemistry of Materials, 2016, 28, 4741-4750.	6.7	18
25	Phonon glass behavior beyond traditional cage structures: synthesis, crystal and electronic structure, and properties of KMg4Sb3. Journal of Materials Chemistry A, 2018, 6, 4759-4767.	10.3	17
26	Synthesis, Crystal Structure, and Properties of Three Laâ€“Znâ€“P Compounds with Different Dimensionalities of the Znâ€“P Framework. Crystal Growth and Design, 2018, 18, 4076-4083.	3.0	17
27	Chemical Flexibility of Mg in Pnictide Materials: Structure and Properties Diversity. Chemistry of Materials, 2019, 31, 8286-8300.	6.7	17
28	New ternary phosphides and arsenides. Syntheses, crystal structures, physical properties of Eu2ZnP2, Eu2Zn2P3 and Eu2Cd2As3. Journal of Solid State Chemistry, 2013, 205, 116-121.	2.9	16
29	Synthesis, Crystal, and Electronic Structure of Ba₃Sb₂Q₇ (Q = S, Se). Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2015, 641, 1087-1092.	1.2	15
30	Directing Boronâ€“Phosphorus Bonds in Crystalline Solid: Oxidative Polymerization of Pâ•Bâ•P Monomers into 1D Chains. Journal of the American Chemical Society, 2019, 141, 13017-13021.	13.7	15
31	Revisiting thiophosphate Pb₃P₂S₈: a multifunctional material combining a nonlinear optical response and photocurrent response. Physical Chemistry Chemical Physics, 2021, 23, 23696-23702.	2.8	15
32	Synthesis, crystal structure, and advanced NMR characterization of a low temperature polymorph of SiSe₂. Journal of Materials Chemistry A, 2016, 4, 11276-11283.	10.3	14
33	Synthesis, crystal structure, linear and nonlinear optical properties of quaternary sulfides Ba6(Cu2X)Ge4S16 (X=Mg, Mn, Cd). Journal of Solid State Chemistry, 2021, 300, 122226.	2.9	13
34	Ce1â^'xSrxZnSbO: New thermoelectric materials formed between intermetallics and oxides. Journal of Alloys and Compounds, 2016, 688, 849-853.	5.5	12
35	Ba13Si6Sn8As22: A Quaternary Zintl Phase Containing Adamantane-Like [Si4As10] Clusters. Inorganic Chemistry, 2013, 52, 11836-11842.	4.0	10
36	Clathrate BaNi₂P₄: An Interplay of Heat and Charge Transport Due to Strong Hostâ€“Guest Interactions. Chemistry of Materials, 2020, 32, 7932-7940.	6.7	9

#	Article	IF	Citations
37	Applying band gap engineering to tune the linear optical and nonlinear optical properties of noncentrosymmetric chalcogenides La₄Ge₃Se_xS_{12â^'x} (x = 0, 2, 4, 6, 8,) Tj ETQq1 1 0.784314 rgBT /Ov	6.0	9
38	Synthesis, crystal structure, and magnetic properties of quaternary iron selenides: Ba2FePnSe5 (Pn=Sb, Bi). Journal of Solid State Chemistry, 2016, 242, 22-27.	2.9	8
39	Ba₆(Cu_xZ_y)Sn₄S₁₆ (Z = Mg,) Tj ETQq1 1 0.784314 rgBT /Ov Inorganic Chemistry, 2022, 61, 2640-2651.	4.0	7
40	Synthesis, Crystal Structure, and Magnetic Properties of R₂Mg₃SiPn₆ (R = La, Ce; Pn = P, As). Inorganic Chemistry, 2017, 56, 8348-8354.	4.0	6
41	Synthesis, Crystal Growth, Electronic Properties and Optical Properties of Y₆IV_{2.5}S₁₄ (IV=Si, Ge). Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2022, 648, .	1.2	6
42	Synthesis, crystal and electronic structure, and optical properties of two new chalcogenide-iodides: Ba3Q4I2 (Q = S, Se). Inorganic Chemistry Frontiers, 2016, 3, 306-312.	6.0	5
43	Quasi-layered Crystal Structure Coupled with Point Defects Leading to Ultralow Lattice Thermal Conductivity in n-Type Cu_{2.83}Bi₁₀Se₁₆. ACS Applied Energy Materials, 2021, 4, 11325-11335.	5.1	5
44	Synthesis, Crystal and Electronic Structures, and Nonlinear Optical Properties of Y₄Si₃S₁₂. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2022, 648, .	1.2	5
45	Evolution of electronic and magnetic properties in the topological semimetal <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Sm</mml:mi><mml:msub><mml:mi>Sb</mml:mi><mml:mi><mml:m Physical Review B, 2022, 105, .	3.8	4
46	Synthesis, crystal and electronic structures, and physical properties of a new quaternary phosphide Ba₄Mg_{2+Î´}Cu_{12â^'Î´}P₁₀(0 < Î´ < 2). Inorganic Chemistry Frontiers, 2017, 4, 801-808.	6.0	3
47	Eu2P7X and Ba2As7X (Xâ€¯=â€¯Br, I): Chiral double-Zintl salts containing heptapnictotricyclane clusters. Journal of Solid State Chemistry, 2018, 263, 195-202.	2.9	3
48	Synthesis, structure, and transport properties of Ba8Cu16â€‰â€“â€‰xAuxP30 clathrate solid solution. Journal of Applied Physics, 2020, 127, 055104.	2.5	3
49	From Three-Dimensional Clathrates to Two-Dimensional Zintl Phases AMSb₂ (A = Rb, Cs; M) Tj ETQq1 1 0.784314 rgBT /Ov	4.0	2
50	Evolution of structure and transport properties of the Ba8Cu16P30 clathrate-I framework with the introduction of Ga. Applied Physics Letters, 2022, 120, .	3.3	2