Kanishka Biswas

List of Publications by Year
in descending order

178	16,025	23500 58	17055 122
papers	citations	h-index	g-index

199	199	199	11356
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	High-performance bulk thermoelectrics with all-scale hierarchical architectures. Nature, 2012, 489, 414-418.	13.7	3,767
2	Strained endotaxial nanostructures with high thermoelectric figure of merit. Nature Chemistry, 2011, 3, 160-166.	6.6	911
3	Graphene, the new nanocarbon. Journal of Materials Chemistry, 2009, 19, 2457.	6.7	686
4	High Performance Thermoelectrics from Earth-Abundant Materials: Enhanced Figure of Merit in PbS by Second Phase Nanostructures. Journal of the American Chemical Society, 2011, 133, 20476-20487.	6.6	433
5	Mg Alloying in SnTe Facilitates Valence Band Convergence and Optimizes Thermoelectric Properties. Chemistry of Materials, 2015, 27, 581-587.	3.2	390
6	High Thermoelectric Performance via Hierarchical Compositionally Alloyed Nanostructures. Journal of the American Chemical Society, 2013, 135, 7364-7370.	6.6	344
7	Enhanced atomic ordering leads to high thermoelectric performance in AgSbTe ₂. Science, 2021, 371, 722-727.	6.0	306
8	MnO and NiO nanoparticles: synthesis and magnetic properties. Journal of Materials Chemistry, 2006, 16, 106-111.	6.7	302
9	High Thermoelectric Performance and Enhanced Mechanical Stability of p-type Ge_{1â€“x}Sb_xTe. Chemistry of Materials, 2015, 27, 7171-7178.	3.2	293
10	The origin of low thermal conductivity in Sn_{1â”x}Sb_xTe: phonon scattering via layered intergrowth nanostructures. Energy and Environmental Science, 2016, 9, 2011-2019.	15.6	234
11	High thermoelectric performance in tellurium free p-type AgSbSe2. Energy and Environmental Science, 2013, 6, 2603.	15.6	226
12	High Power Factor and Enhanced Thermoelectric Performance of SnTe-AgInTe₂: Synergistic Effect of Resonance Level and Valence Band Convergence. Journal of the American Chemical Society, 2016, 138, 13068-13075.	6.6	214
13	Telluriumâ€Free Thermoelectric: The Anisotropic nâ€Type Semiconductor Bi₂S₃. Advanced Energy Materials, 2012, 2, 634-638.	10.2	207
14	High performance thermoelectric materials and devices based on GeTe. Journal of Materials Chemistry C, 2016, 4, 7520-7536.	2.7	194
15	Low Thermal Conductivity and High Thermoelectric Performance in (GeTe)_{1â€“2x}(GeSe)_x(GeS)_x: Competition between Solid Solution and Phase Separation. Journal of the American Chemical Society, 2017, 139, 9382-9391.	6.6	190
16	Intrinsic Rattler-Induced Low Thermal Conductivity in Zintl Type TlInTe₂. Journal of the American Chemical Society, 2017, 139, 4350-4353.	6.6	177
17	Realization of High Thermoelectric FigureÂof Merit in GeTe by Complementary Co-doping of Bi and In. Joule, 2019, 3, 2565-2580.	11.7	175
18	Lead-free thermoelectrics: promising thermoelectric performance in p-type SnTe1â”xSex system. Journal of Materials Chemistry A, 2014, 2, 9620.	5.2	170

#	Article	IF	Citations
19	High thermoelectric figure of merit in nanostructured p-type PbTeâ€“MTe (M = Ca, Ba). Energy and Environmental Science, 2011, 4, 4675.	15.6	162
20	Engineering ferroelectric instability to achieve ultralow thermal conductivity and high thermoelectric performance in Sn_{1â^'x}Ge_xTe. Energy and Environmental Science, 2019, 12, 589-595.	15.6	155
21	The Origin of Ultralow Thermal Conductivity in InTe: Loneâ€Pairâ€Induced Anharmonic Rattling. Angewandte Chemie - International Edition, 2016, 55, 7792-7796.	7.2	145
22	Localized Vibrations of Bi Bilayer Leading to Ultralow Lattice Thermal Conductivity and High Thermoelectric Performance in Weak Topological Insulator n-Type BiSe. Journal of the American Chemical Society, 2018, 140, 5866-5872.	6.6	137
23	Use of Ionic Liquids in the Synthesis of Nanocrystals and Nanorods of Semiconducting Metal Chalcogenides. Chemistry - A European Journal, 2007, 13, 6123-6129.	1.7	135
24	Crystalline Solids with Intrinsically Low Lattice Thermal Conductivity for Thermoelectric Energy Conversion. ACS Energy Letters, 2018, 3, 1315-1324.	8.8	132
25	Reduction of thermal conductivity through nanostructuring enhances the thermoelectric figure of merit in Ge_{1â^'x}Bi_xTe. Inorganic Chemistry Frontiers, 2016, 3, 125-132.	3.0	128
26	Realization of High Thermoelectric Figure of Merit in Solution Synthesized 2D SnSe Nanoplates via Ge Alloying. Journal of the American Chemical Society, 2019, 141, 6141-6145.	6.6	127
27	Enhancement of Thermoelectric Figure of Merit by the Insertion of MgTe Nanostructures in pâ€type PbTe Doped with Na₂Te. Advanced Energy Materials, 2012, 2, 1117-1123.	10.2	123
28	Low Thermal Conductivity and High Thermoelectric Performance in Sb and Bi Codoped GeTe: Complementary Effect of Band Convergence and Nanostructuring. Chemistry of Materials, 2017, 29, 10426-10435.	3.2	117
29	Ultrathin Free-Standing Nanosheets of Bi₂O₂Se: Room Temperature Ferroelectricity in Self-Assembled Charged Layered Heterostructure. Nano Letters, 2019, 19, 5703-5709.	4.5	117
30	Synthesis in Ionic Liquids: [Bi2Te2Br](AlCl4), a Direct Gap Semiconductor with a Cationic Framework. Journal of the American Chemical Society, 2010, 132, 14760-14762.	6.6	116
31	Enhanced thermoelectric properties of p-type nanostructured PbTeâ€“MTe (M = Cd, Hg) materials. Energy and Environmental Science, 2013, 6, 1529.	15.6	115
32	Cation Disorder and Bond Anharmonicity Optimize the Thermoelectric Properties in Kinetically Stabilized Rocksalt AgBiS₂ Nanocrystals. Chemistry of Materials, 2013, 25, 3225-3231.	3.2	115
33	Promising thermoelectric performance in n-type AgBiSe₂: effect of aliovalent anion doping. Journal of Materials Chemistry A, 2015, 3, 648-655.	5.2	115
34	Phonon Scattering and Thermal Conductivity in pâ€Type Nanostructured PbTeâ€BaTe Bulk Thermoelectric Materials. Advanced Functional Materials, 2012, 22, 5175-5184.	7.8	112
35	Temperature Dependent Reversible pâ€“nâ€“p Type Conduction Switching with Colossal Change in Thermopower of Semiconducting AgCuS. Journal of the American Chemical Society, 2014, 136, 12712-12720.	6.6	112
36	Allâ€Solidâ€State Mechanochemical Synthesis and Postâ€Synthetic Transformation of Inorganic Perovskiteâ€type Halides. Chemistry - A European Journal, 2018, 24, 1811-1815.	1.7	110

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37	Germanium Chalcogenide Thermoelectrics: Electronic Structure Modulation and Low Lattice Thermal Conductivity. Chemistry of Materials, 2018, 30, 5799-5813.	3.2	105
38	Characterization of Nanomaterials by Physical Methods. Annual Review of Analytical Chemistry, 2009, 2, 435-462.	2.8	101
39	The journey of tin chalcogenides towards high-performance thermoelectrics and topological materials. Chemical Communications, 2018, 54, 6573-6590.	2.2	84
40	Intrinsically Ultralow Thermal Conductivity in Ruddlesdenâ€“Popper 2D Perovskite Cs₂PbI₂Cl₂: Localized Anharmonic Vibrations and Dynamic Octahedral Distortions. Journal of the American Chemical Society, 2020, 142, 15595-15603.	6.6	82
41	Metallic ReO3Nanoparticles. Journal of Physical Chemistry B, 2006, 110, 842-845.	1.2	80
42	Fewâ€Layer Nanosheets of nâ€Type SnSe₂. Chemistry - A European Journal, 2016, 22, 15634-15638.	1.7	78
43	Nanostructuring, carrier engineering and bond anharmonicity synergistically boost the thermoelectric performance of p-type AgSbSe2â€“ZnSe. Journal of Materials Chemistry A, 2014, 2, 4324.	5.2	76
44	Ultrahigh Thermoelectric Figure of Merit and Enhanced Mechanical Stability of p-type AgSb_{1â€“x}Zn_xTe₂. ACS Energy Letters, 2017, 2, 349-356.	8.8	76
45	Bonding heterogeneity and lone pair induced anharmonicity resulted in ultralow thermal conductivity and promising thermoelectric properties in n-type AgPbBiSe₃. Chemical Science, 2019, 10, 4905-4913.	3.7	74
46	Layered materials with 2D connectivity for thermoelectric energy conversion. Journal of Materials Chemistry A, 2020, 8, 12226-12261.	5.2	74
47	n-Type Ultrathin Few-Layer Nanosheets of Bi-Doped SnSe: Synthesis and Thermoelectric Properties. ACS Energy Letters, 2018, 3, 1153-1158.	8.8	72
48	Highly Converged Valence Bands and Ultralow Lattice Thermal Conductivity for Highâ€Performance SnTe Thermoelectrics. Angewandte Chemie - International Edition, 2020, 59, 11115-11122.	7.2	71
49	Soft Phonon Modes Leading to Ultralow Thermal Conductivity and High Thermoelectric Performance in AgCuTe. Angewandte Chemie - International Edition, 2018, 57, 4043-4047.	7.2	70
50	Phonon Localization and Entropy-Driven Point Defects Lead to Ultralow Thermal Conductivity and Enhanced Thermoelectric Performance in (SnTe)_{1â€“2x}(SnSe)_x(SnS)_x. ACS Energy Letters, 2019, 4, 1658-1662.	8.8	70
51	Origin of Ultralow Thermal Conductivity in n-Type Cubic Bulk AgBiS₂: Soft Ag Vibrations and Local Structural Distortion Induced by the Bi 6s² Lone Pair. Chemistry of Materials, 2019, 31, 2106-2113.	3.2	70
52	Realization of Both n- and p-Type GeTe Thermoelectrics: Electronic Structure Modulation by AgBiSe₂ Alloying. Journal of the American Chemical Society, 2019, 141, 19505-19512.	6.6	69
53	Ferroelectric Instability Induced Ultralow Thermal Conductivity and High Thermoelectric Performance in Rhombohedral p-Type GeSe Crystal. Journal of the American Chemical Society, 2020, 142, 12237-12244.	6.6	69
54	Solutionâ€Based Synthesis of Layered Intergrowth Compounds of the Homologous Pb_mBi_{2n}Te_{3n+m} Series as Nanosheets. Angewandte Chemie - International Edition, 2015, 54, 5623-5627.	7.2	66

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55	Stabilizing nâ€Type Cubic GeSe by Entropyâ€Driven Alloying of AgBiSe₂: Ultralow Thermal Conductivity and Promising Thermoelectric Performance. Angewandte Chemie - International Edition, 2018, 57, 15167-15171.	7.2	66
56	Single pot synthesis of indirect band gap 2D CsPb₂Br₅nanosheets from direct band gap 3D CsPbBr₃nanocrystals and the origin of their luminescence properties. Nanoscale, 2019, 11, 4001-4007.	2.8	65
57	A combined experimental and theoretical study of the structural, electronic and vibrational properties of bulk and few-layer Td-WTe₂. Journal of Physics Condensed Matter, 2015, 27, 285401.	0.7	61
58	Ultralow Thermal Conductivity in Chain-like TlSe Due to Inherent Tl⁺ Rattling. Journal of the American Chemical Society, 2019, 141, 20293-20299.	6.6	61
59	Ultralow Thermal Conductivity, Enhanced Mechanical Stability, and High Thermoelectric Performance in (GeTe)_{1â€“2x}(SnSe)_x(SnS)_x. Journal of the American Chemical Society, 2020, 142, 20502-20508.	6.6	61
60	Ultrahigh Average Thermoelectric Figure of Merit, Low Lattice Thermal Conductivity and Enhanced Microhardness in Nanostructured (GeTe)_x(AgSbSe₂)_{100â^’x}. Chemistry - A European Journal, 2017, 23, 7438-7443.	1.7	60
61	Growth Kinetics of ZnO Nanorods:â€‰ Capping-Dependent Mechanism and Other Interesting Features. Journal of Physical Chemistry C, 2008, 112, 2404-2411.	1.5	59
62	AgI alloying in SnTe boosts the thermoelectric performance via simultaneous valence band convergence and carrier concentration optimization. Journal of Solid State Chemistry, 2016, 242, 43-49.	1.4	59
63	The effect of orderâ€“disorder phase transitions and band gap evolution on the thermoelectric properties of AgCuS nanocrystals. Chemical Science, 2016, 7, 534-543.	3.7	58
64	Metavalent Bonding in GeSe Leads to High Thermoelectric Performance. Angewandte Chemie - International Edition, 2021, 60, 10350-10358.	7.2	58
65	Insights into Low Thermal Conductivity in Inorganic Materials for Thermoelectrics. Journal of the American Chemical Society, 2022, 144, 10099-10118.	6.6	57
66	The Origin of Ultralow Thermal Conductivity in InTe: Loneâ€Pairâ€Induced Anharmonic Rattling. Angewandte Chemie, 2016, 128, 7923-7927.	1.6	56
67	An enhanced Seebeck coefficient and high thermoelectric performance in p-type In and Mg co-doped Sn_{1â^’x}Pb_xTe via the co-adjuvant effect of the resonance level and heavy hole valence band. Journal of Materials Chemistry C, 2017, 5, 5737-5748.	2.7	54
68	Electronic structure modulation strategies in high-performance thermoelectrics. APL Materials, 2020, 8, .	2.2	52
69	Key properties of inorganic thermoelectric materialsâ€”tables (version 1). JPhys Energy, 2022, 4, 022002.	2.3	51
70	Tailoring of Electronic Structure and Thermoelectric Properties of a Topological Crystalline Insulator by Chemical Doping. Angewandte Chemie - International Edition, 2015, 54, 15241-15245.	7.2	49
71	Growth Kinetics of Gold Nanocrystals: A Combined Smallâ€Angle Xâ€Ray Scattering and Calorimetric Study. Small, 2008, 4, 649-655.	5.2	47
72	Ionothermal Synthesis of Fewâ€Layer Nanostructures of Bi₂Se₃ and Related Materials. Chemistry - A European Journal, 2013, 19, 9110-9113.	1.7	45

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73	Origin of the Orderâ€“Disorder Transition and the Associated Anomalous Change of Thermopower in AgBiS₂ Nanocrystals: A Combined Experimental and Theoretical Study. Inorganic Chemistry, 2016, 55, 6323-6331.	1.9	45
74	Selective andÂppb level removal of Hg(<scp>ii</scp>) from water: synergistic role of graphene oxide and SnS₂. Journal of Materials Chemistry A, 2018, 6, 13142-13152.	5.2	45
75	2D layered all-inorganic halide perovskites: recent trends in their structure, synthesis and properties. Nanoscale, 2020, 12, 21094-21117.	2.8	45
76	Intrinsically Low Thermal Conductivity and High Carrier Mobility in Dual Topological Quantum Material, nâ€Type BiTe. Angewandte Chemie - International Edition, 2020, 59, 4822-4829.	7.2	45
77	Intrinsically ultralow thermal conductive inorganic solids for high thermoelectric performance. Chemical Communications, 2021, 57, 4751-4767.	2.2	45
78	Green ionothermal synthesis of hierarchical nanostructures of SnS2 and their Li-ion storage properties. CrystEngComm, 2014, 16, 3994.	1.3	44
79	Enhanced thermoelectric performance in p-type AgSbSe2 by Cd-doping. RSC Advances, 2014, 4, 11811.	1.7	43
80	New methods of synthesis and varied properties of carbon quantum dots with high nitrogen content. Journal of Materials Research, 2014, 29, 383-391.	1.2	42
81	Enhanced Band Convergence and Ultraâ€Low Thermal Conductivity Lead to High Thermoelectric Performance in SnTe. Angewandte Chemie - International Edition, 2021, 60, 17686-17692.	7.2	42
82	High-Performance Thermoelectric Energy Conversion: A Tale of Atomic Ordering in AgSbTe₂. ACS Energy Letters, 2021, 6, 2825-2837.	8.8	42
83	Ferromagnetism in Mn-doped GaN nanocrystals prepared solvothermally at low temperatures. Applied Physics Letters, 2006, 89, 132503.	1.5	38
84	Synthesis of Ultrathin Few-Layer 2D Nanoplates of Halide Perovskite Cs₃Bi₂I₉ and Single-Nanoplate Super-Resolved Fluorescence Microscopy. Inorganic Chemistry, 2018, 57, 15558-15565.	1.9	38
85	Discordant Gd and Electronic Band Flattening Synergistically Induce High Thermoelectric Performance in n-type PbTe. ACS Energy Letters, 0, , 1625-1632.	8.8	37
86	Emphanisis in Cubic (SnSe)_{0.5}(AgSbSe₂)_{0.5}: Dynamical Off-Centering of Anion Leads to Low Thermal Conductivity and High Thermoelectric Performance. Journal of the American Chemical Society, 2021, 143, 16839-16848.	6.6	37
87	Near infrared detectors based on HgSe and HgCdSe quantum dots generated at the liquidâ€“liquid interface. Journal of Materials Chemistry C, 2013, 1, 6184.	2.7	36
88	Solute manipulation enabled band and defect engineering for thermoelectric enhancements of SnTe. InformaÄnÃ-MateriÃ¡ly, 2019, 1, 571-581.	8.5	36
89	Synthesis and Localized Photoluminescence Blinking of Leadâ€Free 2D Nanostructures of Cs₃Bi₂I₆Cl₃ Perovskite. Angewandte Chemie - International Edition, 2020, 59, 13093-13100.	7.2	35
90	Layered Metal Chalcophosphate (K-MPS-1) for Efficient, Selective, and ppb Level Sequestration of Pb from Water. Journal of Physical Chemistry C, 2017, 121, 7959-7966.	1.5	34

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91	Synthetic Nanosheets of Natural van der Waals Heterostructures. Angewandte Chemie - International Edition, 2017, 56, 14561-14566.	7.2	33
92	Thermoelectric energy conversion and topological materials based on heavy metal chalcogenides. Journal of Solid State Chemistry, 2019, 275, 103-123.	1.4	33
93	Evidence of Highly Anharmonic Soft Lattice Vibrations in a Zintl Rattler. Angewandte Chemie - International Edition, 2021, 60, 4259-4265.	7.2	32
94	Intrinsically Low Thermal Conductivity in the n-Type Vacancy-Ordered Double Perovskite Cs₂SnI₆: Octahedral Rotation and Anharmonic Rattling. Chemistry of Materials, 2022, 34, 3301-3310.	3.2	32
95	Semiconducting [(Bi₄Te₄Br₂)(Al₂Cl_{6â€“x}Br_x)]Cl₂ and [Bi₂Se₂Br](AlCl₄): Cationic Chalcogenide Frameworks from Lewis Acidic Ionic Liquids. Inorganic Chemistry, 2013, 52, 5657-5659.	1.9	31
96	High-Performance Thermoelectrics Based on Solution-Grown SnSe Nanostructures. ACS Nano, 2022, 16, 7-14.	7.3	31
97	Coreâ€“shell nanoparticles based on an oxide metal: ReO3@Au (Ag) and ReO3@SiO2(TiO2). Journal of Materials Chemistry, 2007, 17, 2412-2417.	6.7	30
98	Dopant Distributions in PbTe-Based Thermoelectric Materials. Journal of Electronic Materials, 2012, 41, 1583-1588.	1.0	30
99	2D Nanoplates and Scaled-Up Bulk Polycrystals of Ruddlesdenâ€“Popper Cs₂PbI₂Cl₂ for Optoelectronic Applications. ACS Applied Nano Materials, 2020, 3, 877-886.	2.4	28
100	2D Nanosheets of Topological Quantum Materials from Homologous (Bi2)m(Bi2Se3)n Heterostructures: Synthesis and Ultralow Thermal Conductivity. Chemistry of Materials, 2020, 32, 8819-8826.	3.2	28
101	Enhancement of the Thermoelectric Performance of 2D SnSe Nanoplates through Incorporation of Magnetic Nanoprecipitates. ACS Applied Energy Materials, 2020, 3, 9051-9057.	2.5	27
102	Soft chemical approaches to inorganic nanostructures. Pure and Applied Chemistry, 2006, 78, 1619-1650.	0.9	26
103	Local ferroelectricity in thermoelectric SnTe above room temperature driven by competing phonon instabilities and soft resonant bonding. Journal of Materiomics, 2016, 2, 196-202.	2.8	26
104	Thermoelectric Properties of Highly-Crystallized Ge-Te-Se Glasses Doped with Cu/Bi. Materials, 2017, 10, 328.	1.3	26
105	Ultralow Thermal Conductivity in Earth-Abundant Cu_{1.6}Bi_{4.8}S₈: Anharmonic Rattling of Interstitial Cu. Chemistry of Materials, 2021, 33, 2993-3001.	3.2	26
106	Pressure induced structural, electronic topological, and semiconductor to metal transition in AgBiSe2. Applied Physics Letters, 2016, 109, .	1.5	25
107	Nanostructured Peptide Fibrils Formed at the Organicâ^'Aqueous Interface and Their Use as Templates To Prepare Inorganic Nanostructures. ACS Applied Materials & Interfaces, 2009, 1, 811-815.	4.0	24
108	Reversible and Efficient Sequestration of Cesium from Water by the Layered Metal Thiophosphate K_{0.48}Mn_{0.76}PS₃â‹…H₂O. Chemistry - A European Journal, 2017, 23, 11085-11092.	1.7	24

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109	Low thermal conductivity of 2D borocarbonitride nanosheets. Journal of Solid State Chemistry, 2020, 282, 121105.	1.4	24
110	Charge Transfer in the Heterostructure of CsPbBr₃ Nanocrystals with Nitrogen-Doped Carbon Dots. Journal of Physical Chemistry Letters, 2020, 11, 8002-8007.	2.1	24
111	Ultrathin septuple layered PbBi2Se4 nanosheets. Physical Chemistry Chemical Physics, 2014, 16, 14635.	1.3	23
112	Sb deficiencies control hole transport and boost the thermoelectric performance of p-type AgSbSe₂. Journal of Materials Chemistry C, 2015, 3, 10415-10421.	2.7	23
113	Electronic grade and flexible semiconductor film employing oriented attachment of colloidal ligand-free PbS and PbSe nanocrystals at room temperature. Nanoscale, 2015, 7, 9204-9214.	2.8	23
114	Rb₄Sn₅P₄Se₂₀: A Semimetallic Selenophosphate. Angewandte Chemie - International Edition, 2011, 50, 8834-8838.	7.2	22
115	Unexpected superconductivity at nanoscale junctions made on the topological crystalline insulator Pb0.6Sn0.4Te. Applied Physics Letters, 2016, 109, .	1.5	22
116	Pressure-induced phase transitions in the topological crystalline insulator SnTe and its comparison with semiconducting SnSe: Raman and first-principles studies. Physical Review B, 2020, 101, .	1.1	22
117	Soft Phonon Modes Leading to Ultralow Thermal Conductivity and High Thermoelectric Performance in AgCuTe. Angewandte Chemie, 2018, 130, 4107-4111.	1.6	21
118	Stabilizing nâ€Type Cubic GeSe by Entropyâ€Driven Alloying of AgBiSe₂: Ultralow Thermal Conductivity and Promising Thermoelectric Performance. Angewandte Chemie, 2018, 130, 15387-15391.	1.6	21
119	Mechanochemical Synthesis, Optical and Magnetic Properties of Pb-Free Ruddlesdenâ€“Popper-Type Layered Rb₂CuCl₂Br₂ Perovskite. Journal of Physical Chemistry C, 2021, 125, 4720-4729.	1.5	21
120	Effect of potassium doping on electronic structure and thermoelectric properties of topological crystalline insulator. Applied Physics Letters, 2016, 108, .	1.5	20
121	Modulation of the electronic structure and thermoelectric properties of orthorhombic and cubic SnSe by AgBiSe₂ alloying. Chemical Science, 2021, 12, 13074-13082.	3.7	20
122	Temperature driven pâ€“nâ€“p type conduction switching materials: current trends and future directions. Physical Chemistry Chemical Physics, 2015, 17, 10316-10325.	1.3	19
123	Ultrathin few layer oxychalcogenide BiCuSeO nanosheets. Inorganic Chemistry Frontiers, 2017, 4, 84-90.	3.0	19
124	High Spin to Charge Conversion Efficiency in Electron Beam-Evaporated Topological Insulator Bi2Se3. ACS Applied Materials & Interfaces, 2020, 12, 53409-53415.	4.0	19
125	Intrinsically Low Thermal Conductivity and High Carrier Mobility in Dual Topological Quantum Material, nâ€Type BiTe. Angewandte Chemie, 2020, 132, 4852-4859.	1.6	19
126	Local Structure and Influence of Sb Substitution on the Structureâ€“Transport Properties in AgBiSe₂. Inorganic Chemistry, 2019, 58, 9236-9245.	1.9	18

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127	Pb-free layered all-inorganic metal halides RbSn2Br5: Mechanochemical synthesis, band gap tuning, optical and dielectric properties. Materials Research Bulletin, 2021, 140, 111339.	2.7	18
128	Pressure-induced phase transitions in nanocrystalline ReO₃. Journal of Physics Condensed Matter, 2007, 19, 436214.	0.7	16
129	Large linear magnetoresistance in topological crystalline insulator Pb0.6Sn0.4Te. Journal of Solid State Chemistry, 2016, 233, 199-204.	1.4	16
130	Nanoscale Stabilization of Nonequilibrium Rock Salt BiAgSeS: Colloidal Synthesis and Temperature Driven Unusual Phase Transition. Chemistry of Materials, 2017, 29, 3769-3777.	3.2	16
131	Inverse Spin Hall Effect in Electron Beam Evaporated Topological Insulator Bi₂Se₃ Thin Film. Physica Status Solidi - Rapid Research Letters, 2019, 13, 1800492.	1.2	16
132	Electronic transport descriptors for the rapid screening of thermoelectric materials. Materials Horizons, 2021, 8, 2463-2474.	6.4	16
133	Enhanced Band Convergence and Ultraâ€Low Thermal Conductivity Lead to High Thermoelectric Performance in SnTe. Angewandte Chemie, 2021, 133, 17827-17833.	1.6	16
134	Local Symmetry Breaking Suppresses Thermal Conductivity in Crystalline Solids. Angewandte Chemie - International Edition, 2022, 61, .	7.2	16
135	Tuning of pâ€“nâ€“p-Type Conduction in AgCuS through Cation Vacancy: Thermopower and Positron Annihilation Spectroscopy Investigations. Inorganic Chemistry, 2018, 57, 7481-7489.	1.9	15
136	Slight Symmetry Reduction in Thermoelectrics. CheM, 2018, 4, 939-942.	5.8	15
137	Nanocrystalline Janus films of inorganic materials prepared at the liquidâ€“liquid interface. Journal of Colloid and Interface Science, 2009, 333, 404-410.	5.0	14
138	Low frequency noise and photo-enhanced field emission from ultrathin PbBi₂Se₄ nanosheets. Journal of Materials Chemistry C, 2016, 4, 1096-1103.	2.7	14
139	A Game-Changing Strategy in SnSe Thermoelectrics. Joule, 2019, 3, 636-638.	11.7	14
140	Effect of In and Cd co-doping on the thermoelectric properties of Sn_{1â^'x}Pb_xTe. Materials Research Express, 2019, 6, 104010.	0.8	12
141	Metavalent Bonding in GeSe Leads to High Thermoelectric Performance. Angewandte Chemie, 2021, 133, 10438-10446.	1.6	12
142	Tin-Substituted Chalcopyrite: An n-Type Sulfide with Enhanced Thermoelectric Performance. Chemistry of Materials, 2022, 34, 5860-5873.	3.2	12
143	Direct evidence of strong local ferroelectric ordering in a thermoelectric semiconductor. Applied Physics Letters, 2014, 105, 113903.	1.5	11
144	Synthetic Nanosheets of Natural van der Waals Heterostructures. Angewandte Chemie, 2017, 129, 14753-14758.	1.6	11

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145	Evidence of Highly Anharmonic Soft Lattice Vibrations in a Zintl Rattler. Angewandte Chemie, 2021, 133, 4305-4311.	1.6	11
146	Synthesis and Characterization of Nanocrystals of the Oxide Metals, RuO2, IrO2, and ReO3. Journal of Nanoscience and Nanotechnology, 2007, 7, 1969-1974.	0.9	10
147	Fabrication of large-area PbSe films at the organicâ€“aqueous interface and their near-infrared photoresponse. Journal of Materials Chemistry C, 2014, 2, 6283.	2.7	10
148	Understanding the Chemical Nature of the Buried Nanostructures in Low Thermal Conductive Sb-Doped SnTe by Variable-Energy Photoelectron Spectroscopy. Journal of Physical Chemistry C, 2019, 123, 10272-10279.	1.5	10
149	Nature-Inspired Coral-like Layered [Co_{0.79}Al_{0.21}(OH)₂(CO₃)_{0.11}]Â·mH₂O for Fast Selective ppb Level Capture of Cr(VI) from Contaminated Water. Inorganic Chemistry, 2021, 60, 10056-10063.	1.9	10
150	Enhanced thermoelectric performance in topological crystalline insulator n-type Pb_{0.6}Sn_{0.4}Te by simultaneous tuning of the band gap and chemical potential. Journal of Materials Chemistry A, 2018, 6, 24216-24223.	5.2	8
151	Mercouri G. Kanatzidis: Excellence and Innovations in Inorganic and Solid-State Chemistry. Inorganic Chemistry, 2017, 56, 7582-7597.	1.9	7
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