

Yuan Yu

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

48
papers

1,246
citations

19
h-index

34
g-index

50
ext. papers

1,809
ext. citations

12.2
avg, IF

4.85
L-index

#	Paper	IF	Citations
48	Unique Bond Breaking in Crystalline Phase Change Materials and the Quest for Metavalent Bonding. <i>Advanced Materials</i> , 2018 , 30, e1706735	24	127
47	Simultaneous optimization of electrical and thermal transport properties of Bi _{0.5} Sb _{1.5} Te ₃ thermoelectric alloy by twin boundary engineering. <i>Nano Energy</i> , 2017 , 37, 203-213	17.1	115
46	Chalcogenide Thermoelectrics Empowered by an Unconventional Bonding Mechanism. <i>Advanced Functional Materials</i> , 2020 , 30, 1904862	15.6	88
45	Polycrystalline SnSe with a thermoelectric figure of merit greater than the single crystal. <i>Nature Materials</i> , 2021 , 20, 1378-1384	27	79
44	Texture-dependent thermoelectric properties of nano-structured Bi ₂ Te ₃ . <i>Chemical Engineering Journal</i> , 2020 , 388, 124295	14.7	72
43	High-Performance n-Type PbSe-CuSe Thermoelectrics through Conduction Band Engineering and Phonon Softening. <i>Journal of the American Chemical Society</i> , 2018 , 140, 15535-15545	16.4	64
42	Understanding the Structure and Properties of Sesqui-Chalcogenides (i.e., V VI or Pn Ch (Pn = Pnictogen, Ch = Chalcogen) Compounds) from a Bonding Perspective. <i>Advanced Materials</i> , 2019 , 31, e1904316	24	57
41	Attaining ultrahigh thermoelectric performance of direction-solidified bulk n-type Bi ₂ Te _{2.4} Se _{0.6} via its liquid state treatment. <i>Nano Energy</i> , 2017 , 42, 8-16	17.1	48
40	Ag-Segregation to Dislocations in PbTe-Based Thermoelectric Materials. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 3609-3615	9.5	48
39	Liquid-Phase Hot Deformation to Enhance Thermoelectric Performance of n-type Bismuth-Telluride-Based Solid Solutions. <i>Advanced Science</i> , 2019 , 6, 1901702	13.6	39
38	Advanced Optical Programming of Individual Meta-Atoms Beyond the Effective Medium Approach. <i>Advanced Materials</i> , 2019 , 31, e1901033	24	32
37	Revealing nano-chemistry at lattice defects in thermoelectric materials using atom probe tomography. <i>Materials Today</i> , 2020 , 32, 260-274	21.8	31
36	Cu Intercalation and Br Doping to Thermoelectric SnSe ₂ Lead to Ultrahigh Electron Mobility and Temperature-Independent Power Factor. <i>Advanced Functional Materials</i> , 2020 , 30, 1908405	15.6	27
35	Role of Nanostructuring and Microstructuring in Silver Antimony Telluride Compounds for Thermoelectric Applications. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 14779-14790	9.5	26
34	Thermoelectric Performance of SbTe-Based Alloys is Improved by Introducing PN Junctions. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 23277-23284	9.5	26
33	Exceptionally High Average Power Factor and Thermoelectric Figure of Merit in n-type PbSe by the Dual Incorporation of Cu and Te. <i>Journal of the American Chemical Society</i> , 2020 , 142, 15172-15186	16.4	26
32	Enhanced thermoelectric properties of p-type Bi _{0.5} Sb _{1.5} Te ₃ bulk alloys by electroless plating with Cu and annealing. <i>Scripta Materialia</i> , 2016 , 118, 19-23	5.6	24

31	Mg Deficiency in Grain Boundaries of n-Type Mg ₃ Sb ₂ Identified by Atom Probe Tomography. <i>Advanced Materials Interfaces</i> , 2019 , 6, 1900429	4.6	23
30	Enhancing the thermoelectric performance of free solidified p-type Bi _{0.5} Sb _{1.5} Te ₃ alloy by manipulating its parent liquid state. <i>Intermetallics</i> , 2015 , 66, 40-47	3.5	20
29	Employing Interfaces with Metavalently Bonded Materials for Phonon Scattering and Control of the Thermal Conductivity in TAGS-x Thermoelectric Materials. <i>Advanced Functional Materials</i> , 2020 , 30, 1910039	15.6	19
28	Retarding Ostwald ripening through Gibbs adsorption and interfacial complexions leads to high-performance SnTe thermoelectrics. <i>Energy and Environmental Science</i> ,	35.4	19
27	Influence of melt overheating treatment on solidification behavior of BiTe-based alloys at different cooling rates. <i>Materials and Design</i> , 2015 , 88, 743-750	8.1	17
26	Achieving high thermoelectric performance of Ni/Cu modified Bi _{0.5} Sb _{1.5} Te ₃ composites by a facile electroless plating. <i>Materials Today Energy</i> , 2018 , 9, 383-390	7	16
25	Parallel Dislocation Networks and Cottrell Atmospheres Reduce Thermal Conductivity of PbTe Thermoelectrics. <i>Advanced Functional Materials</i> , 2021 , 31, 2101214	15.6	15
24	Nb-Mediated Grain Growth and Grain-Boundary Engineering in Mg ₃ Sb ₂ -Based Thermoelectric Materials. <i>Advanced Functional Materials</i> , 2021 , 31, 2100258	15.6	15
23	Enhanced thermoelectric properties of n-type Bi ₂ Te _{2.7} Se _{0.3} semiconductor by manipulating its parent liquid state. <i>Journal of Materials Science</i> , 2017 , 52, 8526-8537	4.3	14
22	Defect Engineering in Solution-Processed Polycrystalline SnSe Leads to High Thermoelectric Performance. <i>ACS Nano</i> , 2021 ,	16.7	13
21	Tailoring Thermoelectric Transport Properties of Ag-Alloyed PbTe: Effects of Microstructure Evolution. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 38994-39001	9.5	12
20	Boron Strengthened GeTe-Based Alloys for Robust Thermoelectric Devices with High Output Power Density. <i>Advanced Energy Materials</i> , 2021 , 11, 2102012	21.8	12
19	Attaining reduced lattice thermal conductivity and enhanced electrical conductivity in as-sintered pure n-type Bi ₂ Te ₃ alloy. <i>Journal of Materials Science</i> , 2019 , 54, 4788-4797	4.3	11
18	Enhancing thermoelectric performance of Sb ₂ Te ₃ through swapped bilayer defects. <i>Nano Energy</i> , 2021 , 79, 105484	17.1	10
17	Enhanced thermoelectric properties of n-type direction solidified Bi ₂ Te _{2.7} Se _{0.3} alloys by manipulating its liquid state. <i>Scripta Materialia</i> , 2018 , 146, 192-195	5.6	10
16	Simultaneous optimization of Seebeck, electrical and thermal conductivity in free-solidified Bi _{0.4} Sb _{1.6} Te ₃ alloy via liquid-state manipulation. <i>Journal of Materials Science</i> , 2018 , 53, 9107-9116	4.3	9
15	Dependence of Solidification for BiTeSe Alloys on Their Liquid States. <i>Scientific Reports</i> , 2017 , 7, 2463	4.9	8
14	Enhancing the room temperature thermoelectric performance of n-type Bismuth-telluride-based polycrystalline materials by low-angle grain boundaries. <i>Materials Today Physics</i> , 2022 , 22, 100573	8	8

13	Boron-Mediated Grain Boundary Engineering Enables Simultaneous Improvement of Thermoelectric and Mechanical Properties in N-Type Bi Te. <i>Small</i> , 2021 , 17, e2104067	11	7
12	High-performance p-type elemental Te thermoelectric materials enabled by the synergy of carrier tuning and phonon engineering. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 12156-12168	13	6
11	Approaching the Glass Transition Temperature of GeTe by Crystallizing Ge ₁₅ Te ₈₅ . <i>Physica Status Solidi - Rapid Research Letters</i> , 2021 , 15, 2000478	2.5	6
10	The Effect of Sb ₁₃ Doping on the Structure and Electrical Properties of n-Type Bi _{1.8} Sb _{0.2} Te _{2.85} Se _{0.15} Alloy Prepared by the Free Growth Method. <i>Journal of Electronic Materials</i> , 2018 , 47, 998-1002	1.9	6
9	Dopant-segregation to grain boundaries controls electrical conductivity of n-type NbCo(Pt)Sn half-Heusler alloy mediating thermoelectric performance. <i>Acta Materialia</i> , 2021 , 217, 117147	8.4	6
8	Dislocations Stabilized by Point Defects Increase Brittleness in PbTe. <i>Advanced Functional Materials</i> , 2018 , 8, 18006	8.9	6
7	Enhancing thermoelectric performance of Cu-modified Bi _{0.5} Sb _{1.5} Te ₃ by electroless plating and annealing. <i>Progress in Natural Science: Materials International</i> , 2018 , 28, 218-224	3.6	4
6	Density, distribution and nature of planar faults in silver antimony telluride for thermoelectric applications. <i>Acta Materialia</i> , 2019 , 178, 135-145	8.4	4
5	The Importance of Surface Adsorbates in Solution-Processed Thermoelectric Materials: The Case of SnSe. <i>Advanced Materials</i> , 2021 , e2106858	24	4
4	Effect of Chemical Plating with Ni Content on Thermoelectric and Mechanical Properties of P-Type Bi _{0.5} Sb _{0.15} Te ₃ Bulk Alloys. <i>Materials Science Forum</i> , 2016 , 847, 177-183	0.4	4
3	Effects of melting time and temperature on the microstructure and thermoelectric properties of p-type Bi _{0.3} Sb _{1.7} Te ₃ alloy. <i>Journal of Physics and Chemistry of Solids</i> , 2019 , 124, 281-288	3.9	4
2	Effects of Electroless Plating with Cu Content on Thermoelectric and Mechanical Properties of p-type Bi _{0.5} Sb _{1.5} Te ₃ Bulk Alloys. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , 2018 , 33, 797-801	1	3
1	Synergistically Optimized Electron and Phonon Transport of Polycrystalline BiCuSeO Pb and Yb Co-Doping. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 57638-57645	9.5	3