

Recent advances in thermoelectric nanocomposites

Nano Energy

1, 42-56

DOI: [10.1016/j.nanoen.2011.10.001](https://doi.org/10.1016/j.nanoen.2011.10.001)

Citation Report

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Transport properties of Ni, Co, Fe, Mn doped Cu _{0.01} Bi ₂ Te _{2.7} Se _{0.3} for thermoelectric device applications. Journal of Applied Physics, 2012, 112, . | 1.1 | 16 |
| 2 | Atomically Thick Bismuth Selenide Freestanding Single Layers Achieving Enhanced Thermoelectric Energy Harvesting. Journal of the American Chemical Society, 2012, 134, 20294-20297. | 6.6 | 279 |
| 3 | Harvesting energy from low-grade heat based on nanofluids. Nano Energy, 2012, 1, 805-811. | 8.2 | 39 |
| 5 | Nanotechnology-Enabled Energy Harvesting for Self-Powered Micro-Nanosystems. Angewandte Chemie - International Edition, 2012, 51, 11700-11721. | 7.2 | 910 |
| 6 | Unique hierarchical structure and high thermoelectric properties of antimony telluride pillar arrays. Journal of Nanoparticle Research, 2012, 14, 1. | 0.8 | 16 |
| 7 | Enhanced thermoelectric performance of Ga-added Bi _{0.5} Sb _{1.5} Te ₃ films by flash evaporation. Intermetallics, 2012, 31, 321-324. | 1.8 | 11 |
| 8 | Thermoelectrics in misfit-layered oxides [(Ca,Ln) ₂ CoO ₃] _{0.62} [CoO ₂]: From bulk to nano. Nano Energy, 2012, 1, 456-465. | 8.2 | 30 |
| 9 | Thermoelectric properties of copper selenide with ordered selenium layer and disordered copper layer. Nano Energy, 2012, 1, 472-478. | 8.2 | 271 |
| 10 | Pyroelectric Nanogenerators for Driving Wireless Sensors. Nano Letters, 2012, 12, 6408-6413. | 4.5 | 221 |
| 11 | Solid-Solutioned Homojunction Nanoplates with Disordered Lattice: A Promising Approach toward "Phonon Glass Electron Crystal" Thermoelectric Materials. Journal of the American Chemical Society, 2012, 134, 7971-7977. | 6.6 | 71 |
| 12 | Significant improvement of thermoelectric performance in nanostructured bismuth networks. Nano Energy, 2012, 1, 706-713. | 8.2 | 7 |
| 13 | Fabrication of Highly (001)-Textured Sb ₂ Te ₃ Film and Corresponding Thermoelectric Device with Enhanced Performance. Journal of Electronic Materials, 2012, 41, 3031-3038. | 1.0 | 21 |
| 14 | Enhanced thermoelectric figure-of-merit in spark plasma sintered nanostructured n-type SiGe alloys. Applied Physics Letters, 2012, 101, . | 1.5 | 133 |
| 15 | Recent Advances in Nanostructured Thermoelectric Half-Heusler Compounds. Nanomaterials, 2012, 2, 379-412. | 1.9 | 287 |
| 16 | Effect of Silicon and Sodium on Thermoelectric Properties of Thallium-Doped Lead Telluride-Based Materials. Nano Letters, 2012, 12, 2324-2330. | 4.5 | 64 |
| 17 | Heavy Doping and Band Engineering by Potassium to Improve the Thermoelectric Figure of Merit in p-Type PbTe, PbSe, and PbTe _{1-x} Se _x . Journal of the American Chemical Society, 2012, 134, 10031-10038. | 6.6 | 337 |
| 18 | Low temperature thermoelectric properties of Bi _{2-x} Sb _x TeSe ₂ crystals near the n-p crossover. Solid State Communications, 2012, 152, 1208-1211. | 0.9 | 8 |
| 19 | A hybrid energy cell for self-powered water splitting. Energy and Environmental Science, 2013, 6, 2429. | 15.6 | 162 |

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 20 | Thermoelectric Nanomaterials. Springer Series in Materials Science, 2013, , . | 0.4 | 114 |
| 21 | Enhanced thermopower and thermoelectric performance through energy filtering of carriers in (Bi ₂ Te ₃) _{0.2} (Sb ₂ Te ₃) _{0.8} bulk alloy embedded with amorphous SiO ₂ nanoparticles. Journal of Applied Physics, 2013, 114, . | 1.1 | 91 |
| 22 | High thermoelectric performance in n-type BiAgSeS due to intrinsically low thermal conductivity. Energy and Environmental Science, 2013, 6, 1750. | 15.6 | 68 |
| 23 | Nanostructuring of Conventional Thermoelectric Materials. Springer Series in Materials Science, 2013, , 303-320. | 0.4 | 0 |
| 24 | Structural and thermoelectric characterization of Ba substituted LaCoO ₃ perovskite-type materials obtained by polymerized gel combustion method. Journal of Alloys and Compounds, 2013, 579, 147-155. | 2.8 | 36 |
| 25 | Zintl phase compounds AM ₂ Sb ₂ (A=Ca, Sr, Ba, Eu, Yb; M=Zn, Cd) and their substitution variants: a class of potential thermoelectric materials. Journal of Rare Earths, 2013, 31, 1029-1038. | 2.5 | 52 |
| 26 | Enhanced thermoelectric properties and layered structure of Sb ₂ Te ₃ films induced by special (00l) crystal plane. Chemical Physics Letters, 2013, 584, 159-164. | 1.2 | 19 |
| 27 | Extending the 3 $\bar{\bar{1}}$ method: Thermal conductivity characterization of thin films. Review of Scientific Instruments, 2013, 84, 084904. | 0.6 | 22 |
| 28 | Preparation of amorphous and nanocrystalline sodium tantalum oxide photocatalysts with porous matrix structure for overall water splitting. Nano Energy, 2013, 2, 116-123. | 8.2 | 69 |
| 29 | Superlattice multilayered thin films of SiO ₂ /SiO ₂ + Ge for thermoelectric device applications. Journal of Intelligent Material Systems and Structures, 2013, 24, 1357-1364. | 1.4 | 11 |
| 30 | Coupled vibrational modes in multiple-filled skutterudites and the effects on lattice thermal conductivity reduction. Applied Physics Letters, 2013, 102, . | 1.5 | 15 |
| 31 | Photothermoelectric effect as a means for thermal characterization of nanocomposites based on intrinsically conducting polymers and carbon nanotubes. Journal of Applied Physics, 2013, 113, . | 1.1 | 33 |
| 32 | Fabrication and thermoelectric properties of Mg ₂ Si-based composites using reduction reaction with additives. Intermetallics, 2013, 32, 72-80. | 1.8 | 37 |
| 33 | Facile synthesis of Cu ₇ Te ₄ nanorods and the enhanced thermoelectric properties of Cu ₇ Te ₄ @Bi _{0.4} Sb _{1.6} Te ₃ nanocomposites. Nano Energy, 2013, 2, 4-11. | 8.2 | 34 |
| 34 | p-Type Bismuth Telluride-Based Composite Thermoelectric Materials Produced by Mechanical Alloying and Hot Extrusion. Journal of Electronic Materials, 2013, 42, 1429-1435. | 1.0 | 27 |
| 35 | Improvement of textured Bi _{1.6} Pb _{0.4} Sr ₂ Co _{1.8} O thermoelectric performances by metallic Ag additions. Ceramics International, 2013, 39, 1597-1602. | 2.3 | 43 |
| 36 | Fabrication and thermoelectric properties of c-axis oriented nanocrystalline Bi ₂ Sr ₂ Co ₂ O _y thin films. Thin Solid Films, 2013, 534, 168-171. | 0.8 | 2 |
| 37 | A review on the enhancement of figure of merit from bulk to nano-thermoelectric materials. Nano Energy, 2013, 2, 190-212. | 8.2 | 541 |

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 38 | Enhancing the Thermoelectric Properties of p-Type Bulk Bi-Sb-Te Nanocomposites via Solution-Based Metal Nanoparticle Decoration. Journal of Electronic Materials, 2013, 42, 1411-1416. | 1.0 | 32 |
| 39 | Assembly of metals and nanoparticles into novel nanocomposite superstructures. Scientific Reports, 2013, 3, . | 1.6 | 38 |
| 40 | Efficient, low-cost solar thermoelectric cogenerators comprising evacuated tubular solar collectors and thermoelectric modules. Applied Energy, 2013, 109, 51-59. | 5.1 | 98 |
| 41 | Effects of Different Morphologies of Bi ₂ Te ₃ Nanopowders on Thermoelectric Properties. Journal of Electronic Materials, 2013, 42, 1140-1145. | 1.0 | 58 |
| 42 | Enhancement of the Thermoelectric Performance of Bi _{0.4} Sb _{1.6} Te ₃ Alloys by In and Ga Doping. Journal of Electronic Materials, 2013, 42, 1617-1621. | 1.0 | 24 |
| 43 | Thermal conductivity of core-shell nanocomposites for enhancing thermoelectric performance. Applied Physics Letters, 2013, 102, . | 1.5 | 13 |
| 44 | High Thermoelectric Performance via Hierarchical Compositionally Alloyed Nanostructures. Journal of the American Chemical Society, 2013, 135, 7364-7370. | 6.6 | 344 |
| 45 | Thermoelectric Property Study of Nanostructured p-Type Half-Heuslers (Hf, Zr). Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 462 145 | 10.2 | 145 |
| 46 | Studies on the Bi ₂ Te ₃ –Bi ₂ Se ₃ –Bi ₂ S ₃ system for mid-temperature thermoelectric energy conversion. Energy and Environmental Science, 2013, 6, 552-560. | 15.6 | 250 |
| 47 | Enhanced thermoelectric performance in graphitic ZnO (0001) nanofilms. Journal of Applied Physics, 2013, 113, . | 1.1 | 14 |
| 48 | Influence of Te substitution on the structural and electronic properties of thermoelectric BiCuSeO. Journal of Materials Chemistry A, 2013, 1, 2921. | 5.2 | 48 |
| 49 | Silicon-Based Hybrid Energy Cell for Self-Powered Electrodegradation and Personal Electronics. ACS Nano, 2013, 7, 2808-2813. | 7.3 | 125 |
| 50 | Fabrication of Metal Alloy-Deposited Flexible MWCNT Buckypaper for Thermoelectric Applications. Journal of Nanomaterials, 2013, 2013, 1-6. | 1.5 | 7 |
| 51 | Modeling the Phonon Transport in Nanowire with Different Cross-Section. Applied Mechanics and Materials, 0, 401-403, 852-855. | 0.2 | 1 |
| 52 | Nanostructured Thermoelectric Materials. Springer Series in Materials Science, 2013, , 255-285. | 0.4 | 17 |
| 53 | Structure and Thermoelectric Properties of Nanostructured (Bi, Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 147 Td (Sb)<sub>2</sub><sub>2</sub> Advances in Materials Physics and Chemistry, 2013, 03, 119-132. | 0.3 | 8 |
| 54 | Large thermopower in the antiferromagnetic semiconductor BaMn ₂ Bi ₂ . Applied Physics Letters, 2013, 103, . | 1.5 | 7 |
| 55 | Carrier Mapping in Thermoelectric Materials. Materials Research Society Symposia Proceedings, 2013, 1543, 171-176. | 0.1 | 3 |

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 56 | Multilayered structure and enhanced thermoelectric properties of Bi _{1.5} Sb _{0.5} Te ₃ film with preferential growth. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 2611-2616. | 0.8 | 12 |
| 57 | A Review on the Fabrication of Polymer-Based Thermoelectric Materials and Fabrication Methods. Scientific World Journal, The, 2013, 2013, 1-17. | 0.8 | 39 |
| 58 | Improvement of Thermoelectric Properties Via Combination of Nanostructurization and Elemental Doping. Jom, 2014, 66, 2298-2308. | 0.9 | 4 |
| 59 | Electric and thermoelectric properties of CdTe/PbTe epitaxial nanocomposite. Functional Materials Letters, 2014, 07, 1440007. | 0.7 | 1 |
| 60 | Thermoelectric generators: Linking material properties and systems engineering for waste heat recovery applications. Sustainable Materials and Technologies, 2014, 1-2, 26-35. | 1.7 | 192 |
| 61 | Copper(I) oxide based thermoelectric powders and pastes with high Seebeck coefficients. Applied Physics Letters, 2014, 105, . | 1.5 | 22 |
| 62 | Thermoelectric properties of rare earth-doped n-type Bi ₂ Se _{0.3} Te _{2.7} nanocomposites. Bulletin of Materials Science, 2014, 37, 1007-1012. | 0.8 | 13 |
| 63 | Strong enhancement of phonon scattering through nanoscale grains in lead sulfide thermoelectrics. NPC Asia Materials, 2014, 6, e108-e108. | 3.8 | 140 |
| 64 | Towards high efficiency segmented thermoelectric unicouples. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 9-17. | 0.8 | 80 |
| 65 | Electron Microscopy for Characterization of Thermoelectric Nanomaterials. , 2014, , 427-536. | | 0 |
| 66 | Preparation of thermoelectric Si:B/SiGe multilayer structures on quartz glasses by RF-magnetron sputtering with layer-by-layer annealing methods. Japanese Journal of Applied Physics, 2014, 53, 087102. | 0.8 | 0 |
| 67 | Improvement of thermoelectric properties induced by uniquely ordered lattice field in Bi ₂ Se _{0.5} Te _{2.5} pillar array. Journal of Solid State Chemistry, 2014, 215, 219-224. | 1.4 | 17 |
| 68 | A facile hydrothermal method for synthesis different morphologies of PbTe nanostructures. Journal of Industrial and Engineering Chemistry, 2014, 20, 3335-3341. | 2.9 | 23 |
| 69 | Electricity generation from low-temperature industrial excess heat—an opportunity for the steel industry. Energy Efficiency, 2014, 7, 203-215. | 1.3 | 46 |
| 70 | Mesoporous materials for clean energy technologies. Chemical Society Reviews, 2014, 43, 7681-7717. | 18.7 | 422 |
| 71 | A review of thermoelectric cooling: Materials, modeling and applications. Applied Thermal Engineering, 2014, 66, 15-24. | 3.0 | 668 |
| 72 | Effect of Suppression of Grain Growth of Hot Extruded (Bi _{0.2} Sb _{0.8}) ₂ Te ₃ Thermoelectric Alloys by MoS ₂ Nanoparticles. Journal of Electronic Materials, 2014, 43, 2239-2246. | 1.0 | 17 |
| 73 | New promising bulk thermoelectrics: intermetallics, pnictides and chalcogenides. European Physical Journal B, 2014, 87, 1. | 0.6 | 67 |

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 74 | Electric conductivity of a bulk composite based on Bi ₂ Te ₃ /SiO ₂ core-shell nanoparticles. Technical Physics Letters, 2014, 40, 65-68. | 0.2 | 0 |
| 75 | Low-Temperature, Solution-Based, Scalable Synthesis of Sb ₂ Te ₃ Nanoparticles with an Enhanced Power Factor. Journal of Electronic Materials, 2014, 43, 2165-2173. | 1.0 | 8 |
| 76 | Thermoelectric properties of rare earth doped Ca _{3-x} RE _x Co ₄ O ₉ (RE = Dy, Er, Gd, and Tb; x = 0, 0.01, 0.03, 0.08). Journal of Applied Physics, 2014, 115, 073701. | 0.8 | 7 |
| 77 | Structural and chemical modification of semiconductor nanocrystals. , 2014, , 50-94. | | 0 |
| 78 | Organic Thermoelectric Materials: Emerging Green Energy Materials Converting Heat to Electricity Directly and Efficiently. Advanced Materials, 2014, 26, 6829-6851. | 11.1 | 773 |
| 79 | Bi ₂ S ₃ nanonetwork as precursor for improved thermoelectric performance. Nano Energy, 2014, 4, 113-122. | 8.2 | 64 |
| 80 | Improved thermoelectric properties of Bi ₂ Te ₃ Se _x alloys by melt spinning and resistance pressing sintering. Journal Physics D: Applied Physics, 2014, 47, 115101. | 1.3 | 41 |
| 81 | Enhanced thermoelectric properties of the flexible tellurium nanowire film hybridized with single-walled carbon nanotube. Synthetic Metals, 2014, 198, 340-344. | 2.1 | 20 |
| 82 | Optimization of the carrier concentration in phase-separated half-Heusler compounds. Journal of Materials Chemistry A, 2014, 2, 13513-13518. | 5.2 | 47 |
| 83 | Recent advances in thermoelectric materials and solar thermoelectric generators – a critical review. RSC Advances, 2014, 4, 46860-46874. | 1.7 | 122 |
| 84 | Silicon-based hybrid cell for harvesting solar energy and raindrop electrostatic energy. Nano Energy, 2014, 9, 291-300. | 8.2 | 225 |
| 85 | Composition Modulation of Ag ₂ Te Nanowires for Tunable Electrical and Thermal Properties. Nano Letters, 2014, 14, 5398-5404. | 4.5 | 80 |
| 86 | Recent progress in thermoelectric materials. Science Bulletin, 2014, 59, 2073-2091. | 1.7 | 113 |
| 87 | Macro and Micro-Scale Features of Thermoelectric PbTe (Br, Na) Systems: Micro-FTIR Spectroscopy, Micro-Seebeck Measurements, and SEM/EDX Observations. Journal of Electronic Materials, 2014, 43, 3785-3791. | 1.0 | 2 |
| 88 | Improvement of Thermoelectric Properties in (Bi _{0.5} Sb _{0.5}) ₂ Te ₃ Films of Nanolayered Pillar Arrays. Journal of Electronic Materials, 2014, 43, 3098-3104. | 1.0 | 6 |
| 89 | Enhanced thermoelectric properties of the n-type Mg _{0.9} Li phase WO _{2.90} : reduced thermal conductivity through microstructure engineering. Journal of Materials Chemistry A, 2014, 2, 13492-13497. | 5.2 | 21 |
| 90 | The panoramic approach to high performance thermoelectrics. Energy and Environmental Science, 2014, 7, 251-268. | 15.6 | 834 |
| 91 | Effects of morphology on the thermoelectric properties of Al-doped ZnO. RSC Advances, 2014, 4, 12353. | 1.7 | 68 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 92 | Novel precursors for synthesis of dendrite-like PbTe nanostructures and investigation of photoluminescence behavior. <i>Advanced Powder Technology</i> , 2014, 25, 1585-1592. | 2.0 | 35 |
| 93 | Facile precipitation of two phase alloys in SnTe _{0.75} Se _{0.25} with improved power factor. <i>Journal of Alloys and Compounds</i> , 2014, 587, 420-427. | 2.8 | 18 |
| 95 | Numerical simulation, parametric study and optimization of thermoelectric generators for self-cooling of devices. , 2014, , . | | 3 |
| 96 | Nanocomposites for thermoelectrics and thermal engineering. <i>MRS Bulletin</i> , 2015, 40, 746-752. | 1.7 | 40 |
| 97 | Co-In-Sb Ternary System (I): Isothermal Sections and Liquidus Projection. <i>Metallurgical and Materials Transactions E</i> , 2015, 2, 236-249. | 0.5 | 1 |
| 98 | Thermoelectric properties of spark plasma sintered lead telluride nanocubes. <i>Journal of Materials Research</i> , 2015, 30, 2638-2648. | 1.2 | 12 |
| 99 | Electronic transport and thermoelectric properties of double-filled Pr _{1-x} Yb _x Fe _{4-x} Co _x Sb ₁₂ skutterudites. <i>Journal of the Korean Physical Society</i> , 2015, 67, 1208-1213. | 0.3 | 5 |
| 100 | First-Principles Based Phonon Calculation and Raman Spectroscopy Measurement of RuGa ₂ and RuAl ₂ with High Thermoelectric Power Factor. <i>Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals</i> , 2015, 79, 591-596. | 0.2 | 0 |
| 101 | The influence of non-idealities on the thermoelectric power factor of nanostructured superlattices. <i>Journal of Applied Physics</i> , 2015, 118, 224301. | 1.1 | 22 |
| 102 | Futuristic Nanomaterials and Composites: Part I. <i>Jom</i> , 2015, 67, 2844-2847. | 0.9 | 1 |
| 103 | Recent Advancements in Nanogenerators for Energy Harvesting. <i>Small</i> , 2015, 11, 5611-5628. | 5.2 | 74 |
| 104 | Synthesis and high temperature thermoelectric properties of Yb _{0.25} Co ₄ Sb ₁₂ -(Ag ₂ Te) _x (Sb ₂ Te ₃) _{1-x} nanocomposites. <i>Frontiers in Chemistry</i> , 2015, 3, 53. | 1.8 | 5 |
| 105 | Solution-phase synthesis and thermal conductivity of nanostructured CdSe, In ₂ Se ₃ , and composites thereof. <i>Journal of Materials Chemistry A</i> , 2015, 3, 13483-13491. | 5.2 | 9 |
| 106 | Thermoelectric properties of Na-doped Zintl compound: Mg ₃ NaSb ₂ . <i>Acta Materialia</i> , 2015, 93, 187-193. | 3.8 | 131 |
| 107 | Decrease of Ca ₃ Co ₄ O ₉ + δ thermal conductivity by Yb-doping. <i>Ceramics International</i> , 2015, 41, 12529-12534. | 2.3 | 9 |
| 108 | Controlled growth of bismuth antimony telluride Bi ₂ Sb ₂ Te ₃ nanoplatelets and their bulk thermoelectric nanocomposites. <i>Nano Energy</i> , 2015, 15, 688-696. | 8.2 | 94 |
| 109 | Thermoelectric effects in graphene nanostructures. <i>Journal of Physics Condensed Matter</i> , 2015, 27, 133204. | 0.7 | 137 |
| 110 | Grain size effect on electrical resistivity of bulk nanograined Bi ₂ Te ₃ material. <i>Materials Characterization</i> , 2015, 99, 175-179. | 1.9 | 32 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 111 | High thermoelectric and mechanical performance in highly dense Cu_{2-x}S bulks prepared by a melt-solidification technique. <i>Journal of Materials Chemistry A</i> , 2015, 3, 9432-9437. | 5.2 | 176 |
| 112 | Concepts for medium-high to high temperature thermoelectric heat-to-electricity conversion: a review of selected materials and basic considerations of module design. <i>Translational Materials Research</i> , 2015, 2, 025001. | 1.2 | 93 |
| 113 | Numerical Simulation and Parametric Study of Heat-Driven Self-Cooling of Electronic Devices. <i>Journal of Thermal Science and Engineering Applications</i> , 2015, 7, . | 0.8 | 5 |
| 114 | Giant enhancement in thermoelectric performance of copper selenide by incorporation of different nanoscale dimensional defect features. <i>Nano Energy</i> , 2015, 13, 36-46. | 8.2 | 158 |
| 115 | Characterization and thermoelectric properties of $\text{Bi}_{0.4}\text{Sb}_{1.6}\text{Te}_3$ nanostructured bulk prepared by mechanical alloying and microwave activated hot pressing. <i>Ceramics International</i> , 2015, 41, 6817-6823. | 2.3 | 30 |
| 116 | The Effects of Te^{2+} and I^{+} Substitutions on the Electronic Structures, Thermoelectric Performance, and Hardness in Melt-Quenched Highly Dense Cu_{2-x}Se . <i>Advanced Electronic Materials</i> , 2015, 1, 1400015. | 2.6 | 51 |
| 117 | Current progress and future challenges in thermoelectric power generation: From materials to devices. <i>Acta Materialia</i> , 2015, 87, 357-376. | 3.8 | 447 |
| 118 | Improved Thermoelectric Performance of Silver Nanoparticles-Dispersed Bi_2Te_3 Composites Deriving from Hierarchical Two-Phased Heterostructure. <i>Advanced Functional Materials</i> , 2015, 25, 966-976. | 7.8 | 243 |
| 119 | Superior intrinsic thermoelectric performance with zT of 1.8 in single-crystal and melt-quenched highly dense Cu_{2-x}Se bulks. <i>Scientific Reports</i> , 2015, 5, 7671. | 1.6 | 83 |
| 120 | n-type thermoelectric material $\text{Mg}_2\text{Sn}_{0.75}\text{Ge}_{0.25}$ for high power generation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 3269-3274. | 3.3 | 191 |
| 121 | Enhanced thermoelectric performance of spark plasma sintered copper-deficient nanostructured copper selenide. <i>Journal of Physics and Chemistry of Solids</i> , 2015, 81, 100-105. | 1.9 | 48 |
| 122 | Enhancement of thermoelectric performance in n-type $\text{PbTe}_{1-x}\text{Se}_x$ by doping Cr and tuning Te:Se ratio. <i>Nano Energy</i> , 2015, 13, 355-367. | 8.2 | 36 |
| 123 | A new n-type half-Heusler thermoelectric material NbCoSb . <i>Materials Research Bulletin</i> , 2015, 70, 773-778. | 2.7 | 89 |
| 124 | Ultrafast carriers dynamics in filled-skutterudites. <i>Applied Physics Letters</i> , 2015, 106, 231902. | 1.5 | 4 |
| 125 | Performance and mass optimization of thermoelectric microcoolers. <i>International Journal of Thermal Sciences</i> , 2015, 97, 143-151. | 2.6 | 17 |
| 126 | Experimental Realization of Extreme Heat Flux Concentration with Easy-to-Make Thermal Metamaterials. <i>Scientific Reports</i> , 2015, 5, 11552. | 1.6 | 73 |
| 127 | The effect of nickel doping on electron and phonon transport in the n-type nanostructured thermoelectric material CoSbS . <i>Journal of Materials Chemistry C</i> , 2015, 3, 10442-10450. | 2.7 | 47 |
| 128 | Enhanced thermoelectric performance of Bi_2S_3 by synergistical action of bromine substitution and copper nanoparticles. <i>Nano Energy</i> , 2015, 13, 554-562. | 8.2 | 91 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|------|-----------|
| 129 | Tuning thermal conductance across sintered silicon interface by local nanostructures. Nano Energy, 2015, 13, 601-608. | 8.2 | 24 |
| 130 | Enhanced thermoelectric properties of n-type Bi ₂ Te _{2.7} Se _{0.3} by indium and sodium co-doping. Functional Materials Letters, 2015, 08, 1550008. | 0.7 | 6 |
| 131 | MagnÃ©li phases Ti ₄ O ₇ and Ti ₈ O ₁₅ and their carbon nanocomposites via the thermal decomposition-precursor route. Journal of Solid State Chemistry, 2015, 229, 235-242. | 1.4 | 29 |
| 132 | Thermoelectric properties of Ge doped n-type Ti _x Zr _{1-x} NiSn _{0.975} Ge _{0.025} half-Heusler alloys. Journal of Materials Chemistry A, 2015, 3, 12507-12514. | 5.2 | 26 |
| 133 | Hybrid Films of Graphene and Carbon Nanotubes for High Performance Chemical and Temperature Sensing Applications. Small, 2015, 11, 3485-3493. | 5.2 | 54 |
| 134 | Boundary Engineering for the Thermoelectric Performance of Bulk Alloys Based on Bismuth Telluride. ChemSusChem, 2015, 8, 2312-2326. | 3.6 | 68 |
| 135 | Enhanced thermoelectric performance of BiSbTe-based composites incorporated with amorphous Si ₃ N ₄ nanoparticles. RSC Advances, 2015, 5, 34251-34256. | 1.7 | 31 |
| 136 | Thermoelectric power factor: Enhancement mechanisms and strategies for higher performance thermoelectric materials. Materials Science and Engineering Reports, 2015, 97, 1-22. | 14.8 | 311 |
| 137 | Protective properties of YSZ/Ti film deposited on CoSb ₃ thermoelectric material. Corrosion Science, 2015, 98, 163-169. | 3.0 | 5 |
| 138 | Optimization of the random multilayer structure to break the random-alloy limit of thermal conductivity. Applied Physics Letters, 2015, 106, . | 1.5 | 53 |
| 139 | Contrasting the Role of Mg and Ba Doping on the Microstructure and Thermoelectric Properties of p-Type AgSbSe ₂ . ACS Applied Materials & Interfaces, 2015, 7, 23047-23055. | 4.0 | 29 |
| 140 | Mechanical properties and microstructure of spark plasma sintered nanostructured p-type SiGe thermoelectric alloys. Materials and Design, 2015, 87, 414-420. | 3.3 | 31 |
| 141 | Microstructure and thermoelectric properties of a ZrNi _{1.1} Sn half-Heusler alloy. Acta Materialia, 2015, 85, 290-300. | 3.8 | 46 |
| 142 | Study on thermoelectric performance by Na doping in nanostructured Mg ₁ -Na Ag _{0.97} Sb _{0.99} . Nano Energy, 2015, 11, 640-646. | 8.2 | 74 |
| 143 | Enhanced Thermoelectric Performance of PEDOT:PSS Flexible Bulky Papers by Treatment with Secondary Dopants. ACS Applied Materials & Interfaces, 2015, 7, 94-100. | 4.0 | 194 |
| 144 | High Performance Oxides-Based Thermoelectric Materials. Jom, 2015, 67, 211-221. | 0.9 | 71 |
| 145 | Enhancement of thermoelectric properties of Yb-filled skutterudites by an Ni-Induced "core-shell" structure. Journal of Materials Chemistry A, 2015, 3, 1010-1016. | 5.2 | 63 |
| 146 | Thermoelectric properties of pulsed current sintered nanocrystalline Al-doped ZnO by chemical vapour synthesis. Journal of Materials Chemistry A, 2015, 3, 189-197. | 5.2 | 48 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|------|-----------|
| 147 | Thermoelectrical properties of lutetium-doped Bi ₂ Te ₃ bulk samples prepared from flower-like nanopowders. Journal of Alloys and Compounds, 2015, 619, 401-405. | 2.8 | 54 |
| 148 | Synthesis and Thermoelectric Properties of C ₆₀ /Cu ₂ GeSe ₃ Composites. Journal of Nanomaterials, 2016, 2016, 1-7. | 1.5 | 6 |
| 149 | Nitrogen-Doped Carbon Nanotube/Polymer Nanocomposites Towards Thermoelectric Applications. , 0, , . | | 1 |
| 150 | A Review on Electroactive Polymers for Waste Heat Recovery. Materials, 2016, 9, 485. | 1.3 | 14 |
| 151 | Enhanced Thermoelectric Performance of Cu ₂ SnSe ₃ -Based Composites Incorporated with Nano-Fullerene. Materials, 2016, 9, 629. | 1.3 | 14 |
| 152 | Thermoelectric characteristics of uniaxially deformed n-Si in the temperature range 85–355 K. Physica Status Solidi (B): Basic Research, 2016, 253, 1929-1936. | 0.7 | 1 |
| 153 | Recent advances in thermoelectric materials. Progress in Materials Science, 2016, 83, 330-382. | 16.0 | 572 |
| 154 | High temperature thermoelectric properties of skutterudite-Bi ₂ Te ₃ nanocomposites. Intermetallics, 2016, 76, 33-40. | 1.8 | 10 |
| 155 | Integration: An Effective Strategy to Develop Multifunctional Energy Storage Devices. Advanced Energy Materials, 2016, 6, 1501867. | 10.2 | 138 |
| 156 | Thermoelectric Properties of Indium(III)-Doped Copper Antimony Selenide Thin Films Deposited Using a Microwave-Assisted Technique. Energy Technology, 2016, 4, 835-842. | 1.8 | 23 |
| 157 | On the tuning of electrical and thermal transport in thermoelectrics: an integrated theory-experiment perspective. Npj Computational Materials, 2016, 2, . | 3.5 | 399 |
| 158 | Thermal transport size effects in silicon membranes featuring nanopillars as local resonators. Applied Physics Letters, 2016, 108, . | 1.5 | 42 |
| 159 | Liquidus Projections of Bi-Se-Ga and Bi-Se-Te Ternary Systems. Metallurgical and Materials Transactions E, 2016, 3, 281-290. | 0.5 | 0 |
| 160 | On the effectiveness of the thermoelectric energy filtering mechanism in low-dimensional superlattices and nano-composites. Journal of Applied Physics, 2016, 120, . | 1.1 | 22 |
| 161 | Review of Recent Developments in Thermoelectric Materials. , 2016, , . | | 2 |
| 162 | Efficient thermoelectric energy conversion in Pb _{0.95} Mn _{0.05} Te p-n couple. Applied Physics Letters, 2016, 108, . | 1.5 | 4 |
| 163 | Accurate measurement of Seebeck coefficient. Review of Scientific Instruments, 2016, 87, 064701. | 0.6 | 12 |
| 164 | First-Principles-Based Phonon Calculation and Raman Spectroscopy Measurement of RuGa ₂ and RuAl ₂ with High Thermoelectric Power Factors. Materials Transactions, 2016, 57, 1050-1054. | 0.4 | 3 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 165 | Design and optimization of automotive thermoelectric generators for maximum fuel efficiency improvement. Energy Conversion and Management, 2016, 121, 224-231. | 4.4 | 88 |
| 166 | Thermoelectric Nanocomposites for Thermal Energy Conversion. Nanoscience and Technology, 2016, , 371-443. | 1.5 | 5 |
| 167 | Co-doping of Al and Bi to control the transport properties for improving thermoelectric performance of Mg ₂ Si. Scripta Materialia, 2016, 116, 11-15. | 2.6 | 20 |
| 168 | Thermoelectric Performance of n-Type Bi ₂ Te ₃ /Cu Composites Fabricated by Nanoparticle Decoration and Spark Plasma Sintering. Journal of Electronic Materials, 2016, 45, 1927-1934. | 1.0 | 27 |
| 170 | Toward "Phonon Glass Electron Crystal" in Solid-Solutioned Homo Junction Nanoplates with Disordered Lattice. Springer Theses, 2016, , 65-78. | 0.0 | 0 |
| 171 | Scanning near-field thermoelectric microscopy for subsurface nanoscale thermoelectric behavior. Applied Physics A: Materials Science and Processing, 2016, 122, 1. | 1.1 | 3 |
| 172 | Nanoscale thermoelectric properties of Bi ₂ Te ₃ " Graphene nanocomposites: Conducting atomic force, scanning thermal and kelvin probe microscopy studies. Journal of Alloys and Compounds, 2016, 681, 394-401. | 2.8 | 49 |
| 173 | Preparation and properties of ZnSb thermoelectric material through mechanical-alloying and Spark Plasma Sintering. Chemical Engineering Journal, 2016, 299, 126-134. | 6.6 | 34 |
| 174 | Analysis and Implications of Structural Complexity in Low Lattice Thermal Conductivity High Thermoelectric Performance PbTe/PbSnS ₂ Composites. Chemistry of Materials, 2016, 28, 3771-3777. | 3.2 | 7 |
| 175 | The Fragility of Thermoelectric Power Factor in Cross-Plane Superlattices in the Presence of Nonidealities: A Quantum Transport Simulation Approach. Journal of Electronic Materials, 2016, 45, 1584-1588. | 1.0 | 20 |
| 176 | Microstructure and thermoelectric properties of Sb doped Hf _{0.25} Zr _{0.75} NiSn Half-Heusler compounds with improved carrier mobility. Intermetallics, 2016, 74, 1-7. | 1.8 | 18 |
| 177 | High thermoelectric performance of Bi-Te alloy: Defect engineering strategy. Current Applied Physics, 2016, 16, 1202-1215. | 1.1 | 34 |
| 178 | Hybrid Cell Composed of Triboelectric Nanogenerator. Green Energy and Technology, 2016, , 307-350. | 0.4 | 1 |
| 179 | Stable n-type thermoelectric multilayer thin films with high power factor from carbonaceous nanofillers. Nano Energy, 2016, 28, 426-432. | 8.2 | 96 |
| 180 | Real-time tracking of the hierarchical structure of biodegradable poly(butylene succinate-co) Tj ETQqO O O rgBT /Overlock 10 Tf 50 187 Technology, 2016, 134, 201-208. | 3.8 | 19 |
| 181 | High thermoelectric performance of polycrystalline In ₄ Se ₃ (Cu) _x : synergistic effects of the Se-deficiency and Cu-doping. Inorganic Chemistry Frontiers, 2016, 3, 1566-1571. | 3.0 | 10 |
| 183 | Ce _{1-x} Sr _x ZnSbO: New thermoelectric materials formed between intermetallics and oxides. Journal of Alloys and Compounds, 2016, 688, 849-853. | 2.8 | 12 |
| 184 | Nanocluster metal films as thermoelectric material for radioisotope mini battery unit. Chemical Physics, 2016, 478, 2-7. | 0.9 | 10 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|------|-----------|
| 185 | Enhancing the thermoelectric performance of nanosized CoSb ₃ via short-range percolation of electrically conductive WTe ₂ inclusions. Journal of Materials Chemistry A, 2016, 4, 13874-13880. | 5.2 | 38 |
| 186 | Smart Materials for Controlled Droplet Motion. , 2016, , 204-237. | | 0 |
| 187 | Rationally Designing High-Performance Bulk Thermoelectric Materials. Chemical Reviews, 2016, 116, 12123-12149. | 23.0 | 1,624 |
| 188 | A review on nanostructures of high-temperature thermoelectric materials for waste heat recovery. Renewable and Sustainable Energy Reviews, 2016, 64, 635-659. | 8.2 | 251 |
| 189 | Tailored semiconducting carbon nanotube networks with enhanced thermoelectric properties. Nature Energy, 2016, 1, . | 19.8 | 270 |
| 190 | Nanomechanical probing of the layer/substrate interface of an exfoliated InSe sheet on sapphire. Scientific Reports, 2016, 6, 26970. | 1.6 | 14 |
| 191 | Enhanced thermoelectric performance of solution-derived bismuth telluride based nanocomposites via liquid-phase Sintering. Nano Energy, 2016, 30, 630-638. | 8.2 | 78 |
| 192 | Pore Morphology and Reduction Behavior in Alumina Ceramics Fabricated by Spark Plasma Sintering (SPS). Funtai Oyobi Fumatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2016, 63, 282-288. | 0.1 | 0 |
| 193 | Optimizing phonon scattering by nanoprecipitates in lead chalcogenides. Applied Physics Letters, 2016, 108, 113901. | 1.5 | 6 |
| 194 | Lattice thermal conduction in ultra-thin nanocomposites. Journal of Applied Physics, 2016, 119, 244309. | 1.1 | 3 |
| 195 | Engineering Thermal Conductivity for Balancing Between Reliability and Performance of Bulk Thermoelectric Generators. Advanced Functional Materials, 2016, 26, 3678-3686. | 7.8 | 25 |
| 196 | Enhancement of thermoelectric performance of phase pure Zintl compounds Ca _{1-x} Yb _x Zn ₂ Sb ₂ , Ca _{1-x} Eu _x Zn ₂ Sb ₂ , and Eu _{1-x} Yb _x Zn ₂ Sb ₂ by mechanical alloying and hot pressing. Nano Energy, 2016, 25, 136-144. | 8.2 | 67 |
| 197 | Investigation of the bipolar effect in the thermoelectric material CaMg ₂ Bi ₂ using a first-principles study. Physical Chemistry Chemical Physics, 2016, 18, 16566-16574. | 1.3 | 83 |
| 198 | An active thermography approach for thermal and electrical characterization of thermoelectric materials. Journal Physics D: Applied Physics, 2016, 49, 285601. | 1.3 | 10 |
| 199 | Thermoelectric properties of n-type half-Heusler compounds (Hf _{0.25} Zr _{0.75}) _{1-x} Nb _x NiSn. Acta Materialia, 2016, 113, 41-47. | 3.8 | 54 |
| 200 | Effects of Thallium Doping on the Transport Properties of Bi ₂ Te ₃ Alloy. Journal of Electronic Materials, 2016, 45, 3053-3058. | 1.0 | 10 |
| 201 | High-Performance Thermoelectric Paper Based on Double Carrier-Filtering Processes at Nanowire Heterojunctions. Advanced Energy Materials, 2016, 6, 1502181. | 10.2 | 157 |
| 202 | Lithium Doping to Enhance Thermoelectric Performance of MgAgSb with Weak Electron-Phonon Coupling. Advanced Energy Materials, 2016, 6, 1502269. | 10.2 | 122 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|------|-----------|
| 203 | Simple model for effective thermal conductivity of bulk nanostructured materials. International Journal of Thermal Sciences, 2016, 104, 13-19. | 2.6 | 5 |
| 204 | Enhanced thermoelectric performance of $x\text{MoS}_2\text{-TiS}_2$ nanocomposites. Journal of Alloys and Compounds, 2016, 666, 346-351. | 2.8 | 19 |
| 205 | Thermoelectric properties of melt spun PbTe with multi-scaled nanostructures. Journal of Alloys and Compounds, 2016, 662, 368-373. | 2.8 | 18 |
| 206 | New insight into the material parameter B to understand the enhanced thermoelectric performance of $\text{Mg}_{2-x}\text{Sn}_{1-x}^y\text{Ge}_x\text{Sb}_y$. Energy and Environmental Science, 2016, 9, 530-539. | 15.6 | 83 |
| 207 | Enhancing thermoelectric performance of Bi_2Te_3 -based nanostructures through rational structure design. Nanoscale, 2016, 8, 8681-8686. | 2.8 | 70 |
| 208 | Thermoelectric properties of Bi-based Zintl compounds $\text{Ca}_{1-x}\text{Yb}_x\text{Mg}_2\text{Bi}_2$. Journal of Materials Chemistry A, 2016, 4, 4312-4320. | 5.2 | 92 |
| 209 | Free-Standing Reduced Graphene Oxide Paper with High Electrical Conductivity. Journal of Electronic Materials, 2016, 45, 1290-1295. | 1.0 | 32 |
| 210 | On-chip thermoelectric module comprised of oxide thin film legs. Energy Conversion and Management, 2016, 114, 251-257. | 4.4 | 22 |
| 211 | Grain structure evolution at sintering of the bulk Bi_2Te_3 nanomaterial under hot pseudo-isostatic pressure. Journal of Materials Science, 2016, 51, 3415-3421. | 1.7 | 2 |
| 212 | Improving the Thermoelectric Properties of Polyaniline by Introducing Poly(3,4-ethylenedioxythiophene). Journal of Electronic Materials, 2016, 45, 1813-1820. | 1.0 | 11 |
| 213 | Fabrication of Microstructured thermoelectric Bi_2Te_3 thin films by seed layer assisted electrodeposition. Materials Science in Semiconductor Processing, 2016, 46, 17-22. | 1.9 | 13 |
| 214 | Modulation doping and energy filtering as effective ways to improve the thermoelectric power factor. Journal of Computational Electronics, 2016, 15, 16-26. | 1.3 | 36 |
| 216 | Studies on thermoelectric figure of merit of Na-doped p-type polycrystalline SnSe. Journal of Materials Chemistry A, 2016, 4, 1848-1854. | 5.2 | 210 |
| 217 | Anisotropic n-Type $\text{Bi}_2\text{Te}_3\text{-In}_2\text{Te}_3$ Thermoelectric Material Produced by Seeding Zone Melting and Solid State Transformation. Crystal Growth and Design, 2016, 16, 617-624. | 1.4 | 10 |
| 218 | Effect of Nanostructuring and High-Pressure Torsion Process on Thermal Conductivity of Carrier-Doped Chalcopyrite. Journal of Electronic Materials, 2016, 45, 1642-1647. | 1.0 | 12 |
| 219 | Recent progress in half-Heusler thermoelectric materials. Materials Research Bulletin, 2016, 76, 107-112. | 2.7 | 157 |
| 220 | Role of Ag in textured-annealed $\text{Bi}_2\text{Ca}_2\text{Co}_{1.7}\text{O}_x$ thermoelectric ceramic. Acta Materialia, 2016, 102, 273-283. | 3.8 | 22 |
| 221 | Effects of antimony content in $\text{MgAg}_{0.97}\text{Sbx}$ on output power and energy conversion efficiency. Acta Materialia, 2016, 102, 17-23. | 3.8 | 45 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|------|-----------|
| 222 | Low-cost, abundant binary sulfides as promising thermoelectric materials. <i>Materials Today</i> , 2016, 19, 227-239. | 8.3 | 257 |
| 223 | High thermoelectric performance in $\text{Bi}_{2-x}\text{Pb}_x\text{Ba}_2\text{Co}_2\text{O}_y$ promoted by directional growth and annealing. <i>Journal of the European Ceramic Society</i> , 2016, 36, 67-74. | 2.8 | 26 |
| 224 | An extended thermodynamic model for size-dependent thermoelectric properties at nanometric scales: Application to nanofilms, nanocomposites and thin nanocomposite films. <i>Applied Mathematical Modelling</i> , 2016, 40, 2143-2160. | 2.2 | 20 |
| 225 | Towards higher thermoelectric performance of Bi_2Te_3 via defect engineering. <i>Scripta Materialia</i> , 2016, 111, 39-43. | 2.6 | 100 |
| 226 | Review of ocean tidal, wave and thermal energy technologies. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 72, 590-604. | 8.2 | 314 |
| 227 | Nanocomposites from Solution-Synthesized $\text{PbTe}/\text{BiSbTe}$ Nanoheterostructure with Unity Figure of Merit at Low-Medium Temperatures (500-600 K). <i>Advanced Materials</i> , 2017, 29, 1605140. | 11.1 | 70 |
| 228 | Improvement of thermoelectric properties and their correlations with electron effective mass in $\text{Cu}_{1.98}\text{SxSe}_{1-x}$. <i>Scientific Reports</i> , 2017, 7, 40436. | 1.6 | 31 |
| 229 | Thermoelectric and thermal transport properties of complex oxide thin films, heterostructures and superlattices. <i>Journal of Materials Research</i> , 2017, 32, 183-203. | 1.2 | 20 |
| 230 | The π -electron crystal behavior in copper chalcogenides Cu_2X (X = Se, S). <i>Journal of Materials Chemistry A</i> , 2017, 5, 5098-5105. | 5.2 | 81 |
| 231 | Grain Boundary Engineering for Achieving High Thermoelectric Performance in p -type Skutterudites. <i>Advanced Energy Materials</i> , 2017, 7, 1602582. | 10.2 | 194 |
| 232 | Influence of nanoparticle size distribution on the thermal conductivity of particulate nanocomposites. <i>Europhysics Letters</i> , 2017, 117, 24001. | 0.7 | 27 |
| 233 | Mechanically Durable and Flexible Thermoelectric Films from $\text{PEDOT:PSS}/\text{PVA}/\text{Bi}_{0.5}\text{Sb}_{1.5}\text{Te}_3$ Nanocomposites. <i>Advanced Electronic Materials</i> , 2017, 3, 1600554. | 2.6 | 80 |
| 234 | The microscopic origin of low thermal conductivity for enhanced thermoelectric performance of Yb doped MgAgSb . <i>Acta Materialia</i> , 2017, 128, 227-234. | 3.8 | 49 |
| 236 | Experimental Study on Thermal Conductivity and Hardness of Cu and Ni Nanoparticle Packed Bed for Thermoelectric Application. <i>Nanoscale Research Letters</i> , 2017, 12, 189. | 3.1 | 12 |
| 237 | Thermoelectric properties of I-doped n-type Bi_2Te_3 -based material prepared by hydrothermal and subsequent hot pressing. <i>Progress in Natural Science: Materials International</i> , 2017, 27, 203-207. | 1.8 | 46 |
| 238 | Spontaneous solid-state foaming of nanocrystalline thermoelectric compounds at elevated temperatures. <i>Nano Energy</i> , 2017, 36, 223-232. | 8.2 | 14 |
| 239 | High anisotropic thermoelectric effect in palladium phosphide sulphide. <i>Physica Status Solidi (B): Basic Research</i> , 2017, 254, . | 0.7 | 9 |
| 240 | Protective Properties of Various Coatings on CoSb_3 Thermoelectric Material. <i>Journal of Electronic Materials</i> , 2017, 46, 3036-3042. | 1.0 | 3 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 241 | A Review on Organic Polymer-Based Thermoelectric Materials. Journal of Polymers and the Environment, 2017, 25, 1208-1218. | 2.4 | 63 |
| 242 | Thermoelectric Skutterudite/oxide nanocomposites: Effective decoupling of electrical and thermal conductivity by functional interfaces. Nano Energy, 2017, 31, 393-402. | 8.2 | 34 |
| 243 | Polypyrrole/Graphene/Polyaniline Ternary Nanocomposite with High Thermoelectric Power Factor. ACS Applied Materials & Interfaces, 2017, 9, 20124-20131. | 4.0 | 130 |
| 244 | Two-dimensional problem of thermoelectric materials with an elliptic hole or a rigid inclusion. International Journal of Thermal Sciences, 2017, 117, 184-195. | 2.6 | 26 |
| 245 | An insight into $\hat{1}^2$ -Zn4Sb3 from its crystal structure, thermoelectric performance, thermal stability and graded material. Materials Today Energy, 2017, 3, 72-83. | 2.5 | 24 |
| 246 | Energy Harvesting: Breakthrough Technologies Through Polymer Composites. Springer Series on Polymer and Composite Materials, 2017, , 1-42. | 0.5 | 1 |
| 247 | Minority Carrier Blocking to Enhance the Thermoelectric Performance of Solution-Processed Bi_xSb₂Te₃ Nanocomposites via a Liquid-Phase Sintering Process. ACS Applied Materials & Interfaces, 2017, 9, 12501-12510. | 4.0 | 46 |
| 248 | Theoretical Adjustment of Necessary Conditions for Enhancing Figure of Merit of Thin Thermoelectric Layers. Journal of Heat Transfer, 2017, 139, . | 1.2 | 0 |
| 249 | Enhancing thermoelectric performance of SnTe via nanostructuring particle size. Journal of Alloys and Compounds, 2017, 709, 575-580. | 2.8 | 44 |
| 250 | Development of air-stable n-type single-walled carbon nanotubes by doping with 2-(2-methoxyphenyl)-1,3-dimethyl-2,3-dihydro-1 H -benzo[d]imidazole and their thermoelectric properties. Synthetic Metals, 2017, 225, 76-80. | 2.1 | 61 |
| 251 | Densification and alloying of ball milled Silicon-Germanium powder mixture during spark plasma sintering. Advanced Powder Technology, 2017, 28, 506-513. | 2.0 | 15 |
| 252 | Influence of secondary phase dispersants and porosity on thermoelectric properties of $\hat{1}^2$ -Fe 0.91 Mn 0.09 Si 2. Journal of Alloys and Compounds, 2017, 698, 164-169. | 2.8 | 5 |
| 253 | Microstructure-dependent thermoelectric properties of polycrystalline InGaO3(ZnO)2 superlattice films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2017, 35, . | 0.9 | 6 |
| 254 | Structural Complexity and Thermoelectric Properties of Quaternary and Quinary Tellurides (Ge_xSn_{1-x})_{0.8}(In_ySb_{1-y})_{0.6} with 0 x y 1. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2017, 643, 1962-1970. | | |
| 255 | Realizing high-performance thermoelectric power generation through grain boundary engineering of skutterudite-based nanocomposites. Nano Energy, 2017, 41, 501-510. | 8.2 | 130 |
| 256 | Designing High-Efficiency Nanostructured Two-Phase Heusler Thermoelectrics. Chemistry of Materials, 2017, 29, 9386-9398. | 3.2 | 19 |
| 257 | Thermal conductivity of thermoelectric material $\hat{1}^2$ -Cu2Se: Implications on phonon thermal transport. Applied Physics Letters, 2017, 111, . | 1.5 | 9 |
| 258 | High thermoelectric performance and low thermal conductivity in Cu2 $\hat{1}^2$ yS1/3Se1/3Te1/3 liquid-like materials with nanoscale mosaic structures. Nano Energy, 2017, 42, 43-50. | 8.2 | 73 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|------|-----------|
| 259 | An alternative, faster and simpler method for the formation of hierarchically porous ZnO particles and their thermoelectric performance. <i>RSC Advances</i> , 2017, 7, 31960-31968. | 1.7 | 22 |
| 260 | Enhancement in thermoelectric performance of SiGe nanoalloys dispersed with SiC nanoparticles. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 25180-25185. | 1.3 | 36 |
| 261 | Hydrothermal synthesis of SnQ ($Q = \text{Te, Se, S}$) and their thermoelectric properties. <i>Nanotechnology</i> , 2017, 28, 455707. | 1.3 | 24 |
| 262 | A Microporous and Naturally Nanostructured Thermoelectric Metal-Organic Framework with Ultralow Thermal Conductivity. <i>Joule</i> , 2017, 1, 168-177. | 11.7 | 159 |
| 264 | Thermodynamics analysis of thermoelectric materials: Influence of cracking on efficiency of thermoelectric conversion. <i>Applied Thermal Engineering</i> , 2017, 127, 1442-1450. | 3.0 | 41 |
| 265 | Grain boundary engineering with nano-scale InSb producing high performance In _{0.5} Ce _{0.5} Co ₄ Sb ₁₂ +skutterudite thermoelectrics. <i>Journal of Materiomics</i> , 2017, 3, 273-279. | 2.8 | 33 |
| 266 | Ultralow Lattice Thermal Conductivity of the Random Multilayer Structure with Lattice Imperfections. <i>Scientific Reports</i> , 2017, 7, 8134. | 1.6 | 34 |
| 267 | The effect of the backbone structure on the thermoelectric properties of donor-acceptor conjugated polymers. <i>Polymer Chemistry</i> , 2017, 8, 4644-4650. | 1.9 | 54 |
| 268 | New trends, strategies and opportunities in thermoelectric materials: A perspective. <i>Materials Today Physics</i> , 2017, 1, 50-60. | 2.9 | 319 |
| 269 | Direct Observation of Inherent Atomic-Scale Defect Disorders responsible for High-Performance $\text{Ti}_{1-x}\text{Hf}_x\text{NiSn}_{1-y}\text{Sb}_y$ Half-Heusler Thermoelectric Alloys. <i>Advanced Materials</i> , 2017, 29, 1702091. | 1.9 | 49 |
| 270 | Recent progress and future challenges on thermoelectric Zintl materials. <i>Materials Today Physics</i> , 2017, 1, 74-95. | 2.9 | 275 |
| 271 | Designing hybrid architectures for advanced thermoelectric materials. <i>Materials Chemistry Frontiers</i> , 2017, 1, 2457-2473. | 3.2 | 34 |
| 272 | Exceptional thermoelectric performance of a "star-like" SnSe nanotube with ultra-low thermal conductivity and a high power factor. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 23247-23253. | 1.3 | 7 |
| 273 | The effect of rare earth ions on structural, morphological and thermoelectric properties of nanostructured tin oxide based perovskite materials. <i>Materials Research Express</i> , 2017, 4, 115024. | 0.8 | 1 |
| 274 | Performance improvement of a photovoltaic - Thermoelectric hybrid system subjecting to fluctuant solar radiation. <i>Renewable Energy</i> , 2017, 113, 1551-1558. | 4.3 | 47 |
| 275 | Nano-micro-porous skutterudites with 100% enhancement in ZT for high performance thermoelectricity. <i>Nano Energy</i> , 2017, 31, 152-159. | 8.2 | 201 |
| 276 | Paper-based origami flexible and foldable thermoelectric nanogenerator. <i>Nano Energy</i> , 2017, 31, 296-301. | 8.2 | 125 |
| 277 | The bridge between the materials and devices of thermoelectric power generators. <i>Energy and Environmental Science</i> , 2017, 10, 69-85. | 15.6 | 143 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 278 | Enhanced Electronic Transport Properties of Se-Doped SnTe _{1-x} Se _x Nanoparticles by Microwave-Assisted Solvothermal Method. <i>Journal of Electronic Materials</i> , 2017, 46, 2847-2853. | 1.0 | 9 |
| 279 | How nanoparticles can change the figure of merit, ZT, and mechanical properties of skutterudites. <i>Materials Today Physics</i> , 2017, 3, 48-69. | 2.9 | 80 |
| 280 | Suppressed Umklapp scattering of FeSi_2 thin film and single crystalline nanowires. <i>Nanotechnology</i> , 2017, 28, 485702. | 1.3 | 8 |
| 281 | Structure of Bi ₂ Se _{0.3} Te _{2.7} alloy plates obtained by crystallization in a flat cavity by the Bridgman method. <i>Semiconductors</i> , 2017, 51, 1021-1023. | 0.2 | 4 |
| 282 | DFT study of electronic properties of noble d-metallic surface structures. <i>Materials Today: Proceedings</i> , 2017, 4, 12343-12348. | 0.9 | 1 |
| 283 | In Operando Study of High-Performance Thermoelectric Materials for Power Generation: A Case Study of Zn_4Sb_3 . <i>Advanced Electronic Materials</i> , 2017, 3, 1700223. | 2.6 | 17 |
| 284 | Thermomass Theory: A Mechanical Pathway to Analyze Anomalous Heat Conduction in Nanomaterials. , 0, , . | | 2 |
| 285 | Long-Term High-Temperature Stability of Directionally Grown [Bi ₂ Ba ₂ O ₄] _p [CoO ₂] Rods. <i>Materials</i> , 2017, 10, 146. | 1.3 | 2 |
| 286 | Thermal Stability of P-Type BiSbTe Alloys Prepared by Melt Spinning and Rapid Sintering. <i>Materials</i> , 2017, 10, 617. | 1.3 | 18 |
| 288 | Compressibility and thermoelectric behavior of TiCoSb half-Heusler compound at high pressures. <i>Intermetallics</i> , 2018, 95, 137-143. | 1.8 | 12 |
| 289 | A p-type multi-wall carbon nanotube/Te nanorod composite with enhanced thermoelectric performance. <i>RSC Advances</i> , 2018, 8, 8739-8746. | 1.7 | 24 |
| 290 | An overview of thermoelectric films: Fabrication techniques, classification, and regulation methods. <i>Chinese Physics B</i> , 2018, 27, 047210. | 0.7 | 12 |
| 291 | Thermomechanical In Situ Monitoring of Bi ₂ Te ₃ Thin Film and Its Relationship with Microstructure and Thermoelectric Performances. <i>Electronic Materials Letters</i> , 2018, 14, 426-431. | 1.0 | 13 |
| 292 | Design of segmented high-performance thermoelectric generators with cost in consideration. <i>Applied Energy</i> , 2018, 221, 112-121. | 5.1 | 32 |
| 293 | Routes for high-performance thermoelectric materials. <i>Materials Today</i> , 2018, 21, 974-988. | 8.3 | 265 |
| 294 | Thermoelectric Properties of Nickel and Boron Co-Substituted NaCo ₂ O ₄ Prepared by Electrospinning Technique. <i>Nano Hybrids and Composites</i> , 0, 19, 34-45. | 0.8 | 8 |
| 295 | Recent progress on nanostructured conducting polymers and composites: synthesis, application and future aspects. <i>Science China Materials</i> , 2018, 61, 303-352. | 3.5 | 184 |
| 296 | Thermo-element geometry optimization for high thermoelectric efficiency. <i>Energy</i> , 2018, 147, 672-680. | 4.5 | 26 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|------|-----------|
| 298 | Review of Micro Thermoelectric Generator. Journal of Microelectromechanical Systems, 2018, 27, 1-18. | 1.7 | 189 |
| 299 | Thermoelectric properties of Tl and I dual-doped Bi ₂ Te ₃ -based alloys. International Journal of Modern Physics B, 2018, 32, 1850123. | 1.0 | 14 |
| 300 | Variable-range hopping conductivity in Lu-doped Bi ₂ Te ₃ . Solid State Sciences, 2018, 76, 111-117. | 1.5 | 15 |
| 301 | Nanostructure design for drastic reduction of thermal conductivity while preserving high electrical conductivity. Science and Technology of Advanced Materials, 2018, 19, 31-43. | 2.8 | 69 |
| 302 | Hybrid thermoelectric battery electrode FeS ₂ study. Nano Energy, 2018, 45, 432-438. | 8.2 | 35 |
| 303 | Mechanisms of thermoelectric efficiency enhancement in Lu-doped Bi ₂ Te ₃ . Materials Research Express, 2018, 5, 015905. | 0.8 | 24 |
| 304 | Significant Role of Mg Stoichiometry in Designing High Thermoelectric Performance for Mg ₃ (Sb,Bi) ₂ -Based n-Type Zintl. Journal of the American Chemical Society, 2018, 140, 1910-1915. | 6.6 | 125 |
| 305 | Thermoelectric Properties of Topological Insulators. Physica Status Solidi (B): Basic Research, 2018, 255, 1800020. | 0.7 | 37 |
| 306 | High-performance SnSe thermoelectric materials: Progress and future challenge. Progress in Materials Science, 2018, 97, 283-346. | 16.0 | 419 |
| 307 | Effects of Lu and Tm Doping on Thermoelectric Properties of Bi ₂ Te ₃ Compound. Journal of Electronic Materials, 2018, 47, 1362-1370. | 1.0 | 29 |
| 308 | High thermoelectric performance in Bi _{0.46} Sb _{1.54} Te ₃ nanostructured with ZnTe. Energy and Environmental Science, 2018, 11, 1520-1535. | 15.6 | 239 |
| 309 | Effect of 2D MoS ₂ and Graphene interfaces with CoSb ₃ nanoparticles in enhancing thermoelectric properties of 2D MoS ₂ -CoSb ₃ and Graphene-CoSb ₃ nanocomposites. Ceramics International, 2018, 44, 10628-10634. | 2.3 | 18 |
| 310 | Fabrication of open-cell thermoelectric polymer nanocomposites by template-assisted multi-walled carbon nanotubes coating. Composites Part B: Engineering, 2018, 145, 100-107. | 5.9 | 27 |
| 311 | Improvement of Bi ₂ Sr ₂ Co ₂ O _y thermoelectric performances by Na doping. Journal of Electroceramics, 2018, 40, 11-15. | 0.8 | 21 |
| 312 | Microstructure and thermoelectric properties of Bi _{1.9} Lu _{0.1} Te ₃ compound. Rare Metals, 2018, 37, 642-649. | 3.6 | 4 |
| 313 | Fabrication of n-type Bi ₂ Te ₃ film using electrophoretic deposition for thermoelectric applications. Surface and Coatings Technology, 2018, 343, 127-130. | 2.2 | 5 |
| 314 | High thermoelectric performance of $\hat{1}\pm$ -MgAgSb for power generation. Energy and Environmental Science, 2018, 11, 23-44. | 15.6 | 127 |
| 315 | Advances in carbon nanotube n-type doping: Methods, analysis and applications. Carbon, 2018, 126, 257-270. | 5.4 | 102 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|------|-----------|
| 316 | Structural and Thermoelectric Properties of Bi ₈₅ Sb ₁₅ Prepared by Non-equal Channel Angular Extrusion. <i>Journal of Electronic Materials</i> , 2018, 47, 242-250. | 1.0 | 5 |
| 317 | Metal oxides for thermoelectric power generation and beyond. <i>Advanced Composites and Hybrid Materials</i> , 2018, 1, 114-126. | 9.9 | 98 |
| 318 | Enhancing the thermoelectric performance of filled skutterudite nanocomposites in a wide temperature range via electroless silver plating. <i>Scripta Materialia</i> , 2018, 146, 136-141. | 2.6 | 11 |
| 319 | Enhancement of thermoelectric efficiency in Bi ₂ Te ₃ via rare earth element doping. <i>Scripta Materialia</i> , 2018, 146, 91-94. | 2.6 | 49 |
| 320 | Enhanced thermoelectric performance of SnTe thin film through designing oriented nanopillar structure. <i>Journal of Alloys and Compounds</i> , 2018, 737, 167-173. | 2.8 | 21 |
| 321 | Structural and Electrical Properties of Na X COO ₂ Thermoelectric Synthesized via Citric-Nitrate Auto-Combustion Reaction. <i>Journal of Physics: Conference Series</i> , 2018, 1082, 012033. | 0.3 | 1 |
| 322 | Thermoelectric properties of Ni _{0.05} Mo ₃ Sb _{5.4} Te _{1.6} composites with NiSb nanocoating. <i>AIP Advances</i> , 2018, 8, . | 0.6 | 4 |
| 323 | Thermal Conductivity of Nanostructured Semiconductor Alloys. , 2018, , 1-35. | | 2 |
| 324 | An experimental study of a-Si/ZnO-stacked hetero-structures for potential thermoelectric energy harvesting applications. <i>Applied Physics Letters</i> , 2018, 113, 173901. | 1.5 | 5 |
| 325 | Highly-efficient thermoelectric pn-junction device based on bismuth telluride (Bi ₂ Te ₃) and molybdenum disulfide (MoS ₂) thin films fabricated by RF magnetron sputtering technique. <i>Journal of Applied Physics</i> , 2018, 124, . | 1.1 | 9 |
| 326 | Thermoelectric Cooling. , 0, , . | | 6 |
| 327 | Enhancing thermoelectric properties of p-type SiGe alloy through optimization of carrier concentration and processing parameters. <i>Materials Science in Semiconductor Processing</i> , 2018, 88, 239-249. | 1.9 | 21 |
| 328 | Characteristics of hetero-structured thermoelectric devices with a Si / Mg ₂ Si-stacked thin film layers. <i>Electronics Letters</i> , 2018, 54, 1399-1401. | 0.5 | 0 |
| 329 | A Nanostructuring Method to Decouple Electrical and Thermal Transport through the Formation of Electrically Triggered Conductive Nanofilaments. <i>Advanced Materials</i> , 2018, 30, e1705385. | 11.1 | 13 |
| 330 | Particle size effect on the thermal conductivity reduction of silicon based thermoelectric composites. <i>Sustainable Energy and Fuels</i> , 2018, 2, 1764-1771. | 2.5 | 16 |
| 331 | Intrinsic phonon-limited charge carrier mobilities in thermoelectric SnSe. <i>Physical Review B</i> , 2018, 97, . | 1.1 | 78 |
| 332 | Effect of Immersion Time on Corrosion Behavior of Single-Phase Alloy and Nanocomposite Bismuth Telluride-Based Thermoelectrics in NaCl Solution. <i>Journal of Materials Engineering and Performance</i> , 2018, 27, 3386-3393. | 1.2 | 6 |
| 333 | High Thermoelectric Performance in Crystallographically Textured n-Type Bi ₂ Te ₃ Se Produced from Asymmetric Colloidal Nanocrystals. <i>ACS Nano</i> , 2018, 12, 7174-7184. | 7.3 | 114 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 334 | Analytic solutions of thermoelectric materials containing a circular hole with a straight crack. <i>International Journal of Mechanical Sciences</i> , 2018, 144, 731-738. | 3.6 | 17 |
| 335 | Structural Chemical Modification of Semiconductor Nano-Crystals. , 2018, , 1-52. | | 1 |
| 336 | Manufacturing of Al and Mg nanocomposite microparticles. <i>Manufacturing Letters</i> , 2018, 17, 23-26. | 1.1 | 5 |
| 337 | Kinetic study of solid-state interfacial reactions of p-type (Bi,Sb) ₂ Te ₃ thermoelectric materials with Sn and Sn-Â€Ag-Â€Cu solders. <i>Journal of Alloys and Compounds</i> , 2018, 767, 1133-1140. | 2.8 | 13 |
| 338 | In ₂ O ₃ -Based Thermoelectric Materials: The State of the Art and the Role of Surface State in the Improvement of the Efficiency of Thermoelectric Conversion. <i>Crystals</i> , 2018, 8, 14. | 1.0 | 28 |
| 339 | Thermoelectric and optical properties of half-Heusler compound TaCoSn: A first-principle study. <i>Journal of Alloys and Compounds</i> , 2018, 757, 118-123. | 2.8 | 23 |
| 340 | Two orders of magnitude reduction in silicon membrane thermal conductivity by resonance hybridizations. <i>Physical Review B</i> , 2018, 97, . | 1.1 | 52 |
| 341 | Highly fluidic liquid at homointerface generates grain-boundary dislocation arrays for high-performance bulk thermoelectrics. <i>Acta Materialia</i> , 2018, 159, 266-275. | 3.8 | 19 |
| 342 | Anisotropic thermoelectric properties of Bi _{1.9} Lu _{0.1} Te _{2.7} Se _{0.3} textured via spark plasma sintering. <i>Solid State Sciences</i> , 2018, 84, 28-43. | 1.5 | 25 |
| 343 | Enhanced thermoelectric properties of two-dimensional conjugated polymers. <i>Emergent Materials</i> , 2018, 1, 67-76. | 3.2 | 20 |
| 344 | Suspension Characteristics and Electrophoretic Deposition of p-Type Bi ₂ Te ₃ Films for Thermoelectric Applications. <i>Journal of the Electrochemical Society</i> , 2018, 165, D364-D369. | 1.3 | 3 |
| 345 | Thermoelectric Nanomaterials. , 2019, , 349-358. | | 4 |
| 346 | Carbon Nanotube-Based Thermoelectric Devices. <i>Nanostructure Science and Technology</i> , 2019, , 551-560. | 0.1 | 1 |
| 347 | Ru Alloying Induced Enhanced Thermoelectric Performance in FeSi ₂ -Based Compounds. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 32151-32158. | 4.0 | 17 |
| 348 | Enhanced thermoelectric properties of Bi ₂ S ₃ polycrystals through an electroless nickel plating process. <i>RSC Advances</i> , 2019, 9, 23029-23035. | 1.7 | 5 |
| 349 | Air-Stable n-Type Single-Walled Carbon Nanotubes Doped with Benzimidazole Derivatives for Thermoelectric Conversion and Their Air-Stable Mechanism. <i>ACS Applied Nano Materials</i> , 2019, 2, 4703-4710. | 2.4 | 54 |
| 350 | Kelvin probe force microscopy of the nanoscale electrical surface potential barrier of metal/semiconductor interfaces in ambient atmosphere. <i>Beilstein Journal of Nanotechnology</i> , 2019, 10, 1401-1411. | 1.5 | 4 |
| 351 | Improved Thermoelectric Performance of Eco-Friendly FeSi ₂ -SiGe Nanocomposite via Synergistic Hierarchical Structuring, Phase Percolation, and Selective Doping. <i>Advanced Functional Materials</i> , 2019, 29, 1903157. | 7.8 | 27 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 352 | Anisotropy of thermal conductivity in In ₂ Se ₃ nanostructures. Applied Surface Science, 2019, 494, 867-870. | 3.1 | 15 |
| 353 | Improved Thermoelectric Power Factor in Completely Organic Nanocomposite Enabled by Ascorbic Acid. ACS Applied Polymer Materials, 2019, 1, 1942-1947. | 2.0 | 15 |
| 354 | Synergistic boost of output power density and efficiency in In-Li-codoped SnTe. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 21998-22003. | 3.3 | 29 |
| 355 | Enhanced Mechanical Properties of Na _{0.02} Pb _{0.98} Te/MoTe ₂ Thermoelectric Composites Through in-Situ-Formed MoTe ₂ . ACS Applied Materials & Interfaces, 2019, 11, 41472-41481. | 4.0 | 12 |
| 356 | Effect of gelatin on electrodeposition of tellurium from alkaline electrolyte. Materials Research Express, 2019, 6, 125908. | 0.8 | 2 |
| 357 | Facile synthesis of Ag ₂ Te nanowires and thermoelectric properties of Ag ₂ Te polycrystals sintered by spark plasma sintering. CrystEngComm, 2019, 21, 1718-1727. | 1.3 | 30 |
| 358 | High thermoelectric performance in high crystallinity epitaxial Si films containing silicide nanodots with low thermal conductivity. Applied Physics Letters, 2019, 115, 182104. | 1.5 | 13 |
| 359 | Spin-entropy induced thermopower and spin-blockade effect in CoO. Physical Review B, 2019, 100, . | 1.1 | 6 |
| 360 | Contrast of Evolution Characteristics of Boreal Summer and Winter Intraseasonal Oscillations over Tropical Indian Ocean. Journal of Meteorological Research, 2019, 33, 678-694. | 0.9 | 2 |
| 361 | Carbon nanotube fibers with enhanced longitudinal carrier mobility for high-performance all-carbon thermoelectric generators. Nanoscale, 2019, 11, 16919-16927. | 2.8 | 41 |
| 362 | Thermoelectric Devices by Half-Millimeter-Long Silicon Nanowires Arrays. IEEE Nanotechnology Magazine, 2019, 18, 921-924. | 1.1 | 17 |
| 363 | Microstructure and thermoelectric properties of p and n type doped $\hat{1}^2$ -FeSi ₂ fabricated by mechanical alloying and pulse plasma sintering. Materials Today: Proceedings, 2019, 8, 531-539. | 0.9 | 8 |
| 364 | Comprehensive modeling for geometric optimization of a thermoelectric generator module. Energy Conversion and Management, 2019, 183, 645-659. | 4.4 | 56 |
| 365 | A parametrical study on photo-electro-thermal performance of an integrated thermoelectric-photovoltaic cell. Renewable Energy, 2019, 138, 542-550. | 4.3 | 26 |
| 366 | Advanced thermal systems driven by paraffin-based phase change materials – A review. Applied Energy, 2019, 238, 582-611. | 5.1 | 214 |
| 367 | High efficient nanostructured PbSe _{0.5} Te _{0.5} exhibiting broad figure-of-merit plateau. Journal of Alloys and Compounds, 2019, 785, 862-870. | 2.8 | 8 |
| 368 | Influence of the Sintering Temperature on the Thermoelectric Properties of the Bi _{1.9} Gd _{0.1} Te ₃ Compound. Semiconductors, 2019, 53, 615-619. | 0.2 | 0 |
| 369 | Silver content dependent thermal conductivity and thermoelectric properties of electrodeposited antimony telluride thin films. Scientific Reports, 2019, 9, 9242. | 1.6 | 13 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 370 | Experimental investigations on a novel thermoelectric material (Na _x CoO ₂). International Journal of Ambient Energy, 2021, 42, 1846-1850. | 1.4 | 0 |
| 371 | Synthesis and Processing of Thermoelectric Nanomaterials, Nanocomposites, and Devices. , 2019, , 295-336. | | 8 |
| 372 | Precision Interface Engineering of an Atomic Layer in Bulk Bi ₂ Te ₃ Alloys for High Thermoelectric Performance. ACS Nano, 2019, 13, 7146-7154. | 7.3 | 66 |
| 373 | Effect of La ³⁺ substitution on the structural and thermoelectric properties of Ca ₃ -La Co ₄ O ₉ +. Journal of the European Ceramic Society, 2019, 39, 3320-3326. | 2.8 | 18 |
| 374 | Enhancement in thermoelectric performance of electrochemically deposited platinum-bismuth telluride nanocomposite. Electrochimica Acta, 2019, 312, 62-71. | 2.6 | 27 |
| 375 | Thermoelectric power factor enhancement based on carrier transport physics in ultimately phonon-controlled Si nanostructures. Materials Today Energy, 2019, 13, 56-63. | 2.5 | 39 |
| 376 | Enhanced and stabilized n-type thermoelectric performance in δ -CuAgSe by Ni doping. Materials Today Physics, 2019, 10, 100095. | 2.9 | 13 |
| 377 | Computational strategies for design and discovery of nanostructured thermoelectrics. Npj Computational Materials, 2019, 5, . | 3.5 | 39 |
| 378 | Controllable electrodeposition and mechanism research of nanostructured Bi ₂ Te ₃ thin films with high thermoelectric properties. Applied Surface Science, 2019, 486, 65-71. | 3.1 | 16 |
| 379 | Data-driven analysis of electron relaxation times in PbTe-type thermoelectric materials. Science and Technology of Advanced Materials, 2019, 20, 511-520. | 2.8 | 42 |
| 380 | High-Throughput Screening for Advanced Thermoelectric Materials: Diamond-Like ABX ₂ Compounds. ACS Applied Materials & Interfaces, 2019, 11, 24859-24866. | 4.0 | 72 |
| 381 | Enhanced Thermoelectric Performance of Quaternary Cu ₂ Ag ₂ Se ₁ S _x Liquid-like Chalcogenides. ACS Applied Materials & Interfaces, 2019, 11, 13433-13440. | 4.0 | 38 |
| 382 | Achieving band convergence by tuning the bonding ionicity in n-type Mg ₃ Sb ₂ . Journal of Computational Chemistry, 2019, 40, 1693-1700. | 1.5 | 68 |
| 383 | Magnetic iron doping in Cu ₂ SnS ₃ ceramics for enhanced thermoelectric transport properties. Journal of Applied Physics, 2019, 125, . | 1.1 | 30 |
| 385 | Development of Thermoelectric Conversion Materials Using Carbon Nanotube Sheets. Bulletin of the Chemical Society of Japan, 2019, 92, 400-408. | 2.0 | 39 |
| 386 | Rare earth ytterbium enhanced thermoelectric properties of p-type Bi _{0.5} Sb _{1.5} Te ₃ . Applied Physics Letters, 2019, 114, . | 1.5 | 15 |
| 387 | High thermoelectric performance in Cu ₂ Se superionic conductor with enhanced liquid-like behaviour by dispersing SiC. Journal of Materials Chemistry A, 2019, 7, 7006-7014. | 5.2 | 71 |
| 388 | Thermoelectric Properties of Zinc-Doped Indium Tin Oxide Thin Films Prepared Using the Magnetron Co-Sputtering Method. Coatings, 2019, 9, 788. | 1.2 | 6 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|------|-----------|
| 389 | Current Research and Future Prospective of Iron-Based Heusler Alloys as Thermoelectric Materials. Nanotechnologies in Russia, 2019, 14, 281-289. | 0.7 | 2 |
| 390 | Organic Thermoelectrics and Thermoelectric Generators (TEGs). , 0, , . | | 4 |
| 391 | Structural Transformations in (Bi, Sb) ₂ Te ₃ Solid Solutions Grown by Spark Plasma Sintering. Journal of Physics: Conference Series, 2019, 1347, 012120. | 0.3 | 1 |
| 392 | Simultaneous energy harvesting and storage <i>via</i> solar-driven regenerative electrochemical cycles. Energy and Environmental Science, 2019, 12, 3370-3379. | 15.6 | 55 |
| 393 | Self-propagating high-temperature synthesis of Fe ₂ TiSn based Heusler alloys with following spark plasma sintering. IOP Conference Series: Materials Science and Engineering, 2019, 558, 012042. | 0.3 | 1 |
| 394 | Novel Thermoelectric Materials and Device Design Concepts. , 2019, , . | | 12 |
| 395 | Effect of Spark Plasma Sintering Temperature on Thermoelectric Properties of Grained Bi _{1.9} Gd _{0.1} Te ₃ Compound. Semiconductors, 2019, 53, 1838-1844. | 0.2 | 0 |
| 396 | Enhanced Thermoelectric Properties of Ga and Ce Double-Filled <i>p</i>-Type Skutterudites. Materials Transactions, 2019, 60, 1078-1082. | 0.4 | 3 |
| 397 | I-doped Cu ₂ Se nanocrystals for high-performance thermoelectric applications. Journal of Alloys and Compounds, 2019, 772, 366-370. | 2.8 | 47 |
| 398 | Ink Processing for Thermoelectric Materials and Power-Generating Devices. Advanced Materials, 2019, 31, e1804930. | 11.1 | 48 |
| 399 | Enhancement of Power Factor for Inherently Poor Thermal Conductor Ag ₈ GeSe ₆ by Replacing Ge with Sn. ACS Applied Energy Materials, 2019, 2, 654-660. | 2.5 | 26 |
| 400 | Sintering temperature effect on thermoelectric properties and microstructure of the grained Bi _{1.9} Gd _{0.1} Te ₃ compound. Journal of the European Ceramic Society, 2019, 39, 1193-1205. | 2.8 | 16 |
| 401 | Thermoelectrics: From history, a window to the future. Materials Science and Engineering Reports, 2019, 138, 100501. | 14.8 | 341 |
| 402 | Transverse magnetoresistance peculiarities of thermoelectric Lu-doped Bi ₂ Te ₃ compound due to strong electrical disorder. Journal of Rare Earths, 2019, 37, 292-298. | 2.5 | 11 |
| 403 | Copper Sulfides: Earth-Abundant and Low-Cost Thermoelectric Materials. Energy Technology, 2019, 7, 1800850. | 1.8 | 45 |
| 404 | Noncovalent Modification of Single-Walled Carbon Nanotubes Using Thermally Cleavable Polythiophenes for Solution-Processed Thermoelectric Films. ACS Applied Materials & Interfaces, 2019, 11, 4211-4218. | 4.0 | 22 |
| 405 | Thermoelectric performance of electrophoretically deposited p-type Bi ₂ Te ₃ film. Applied Surface Science, 2019, 477, 27-31. | 3.1 | 8 |
| 406 | Electrochemical response of n-type bismuth telluride based thermoelectric materials in NaCl solutions: A comparison between a single-phase alloy and a nanocomposite containing MoS ₂ nano-particles. Arabian Journal of Chemistry, 2020, 13, 1858-1865. | 2.3 | 5 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 407 | A study on the electrochemical responses of p-type bismuth telluride-based thermoelectric materials in a 0.1 M NaCl solution: Comparing a nanocomposite with dispersed MoS ₂ nanoparticles and a single-phase alloy. <i>Journal of Alloys and Compounds</i> , 2020, 815, 152371. | 2.8 | 4 |
| 408 | Recent Advances in Liquid-Like Thermoelectric Materials. <i>Advanced Functional Materials</i> , 2020, 30, 1903867. | 7.8 | 148 |
| 409 | Thermoelectric properties of the textured Bi _{1.9} Gd _{0.1} Te ₃ compounds spark-plasma-sintered at various temperatures. <i>Journal of the European Ceramic Society</i> , 2020, 40, 742-750. | 2.8 | 21 |
| 410 | Investigation of melt-spinning speed on the property of Yb _{0.2} Ba _{0.1} Al _{0.1} Ga _{0.1} In _{0.1} La _{0.05} Eu _{0.05} Co _{3.75} Fe _{0.25} Sb ₁₂ skutterudites. <i>Materials Letters</i> , 2020, 260, 126960. | 1.3 | 11 |
| 411 | Enhanced thermoelectric performance of poly(3,4-ethylenedioxythiophene):poly(4-styrenesulfonate) (PEDOT:PSS) with long-term humidity stability via sequential treatment with trifluoroacetic acid. <i>Polymer International</i> , 2020, 69, 84-92. | 1.6 | 33 |
| 412 | Characterization of multiple-filled skutterudites with high thermoelectric performance. <i>Journal of Alloys and Compounds</i> , 2020, 814, 152272. | 2.8 | 43 |
| 413 | Quaternary compounds Ag ₂ XYSe ₄ (X = Ba, Sr; Y = Sn, Ge) as novel p-type thermoelectric materials. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 115302. | 1.3 | 14 |
| 414 | Revealing nano-chemistry at lattice defects in thermoelectric materials using atom probe tomography. <i>Materials Today</i> , 2020, 32, 260-274. | 8.3 | 73 |
| 415 | Realizing Excellent Thermoelectric Performance of Sb ₂ Te ₃ Based Segmented Leg with a Wide Temperature Range Using One-Step Sintering. <i>Advanced Electronic Materials</i> , 2020, 6, 1901178. | 2.6 | 18 |
| 416 | Achieving a High Average $\langle zT \rangle$ Value in Sb ₂ Te ₃ -Based Segmented Thermoelectric Materials. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 945-952. | 4.0 | 26 |
| 417 | Poly(3,4-Ethylene Dioxythiophene)/Poly(Styrene Sulfonate) Electrodes in Electrochemical Cells for Harvesting Waste Heat. <i>Energy Technology</i> , 2020, 8, 1900998. | 1.8 | 8 |
| 418 | Fabrication and thermoelectric properties of Pb (Zn _{0.85} Al _{0.15}) Te-Te (y = 0, 0.04, 0.06, 0.08, and 0.11) nanocomposites. <i>Ceramics International</i> , 2020, 46, 6443-6453. | 2.3 | 7 |
| 419 | Nanostructural effect on thermoelectric properties in Si films containing iron silicide nanodots. <i>Japanese Journal of Applied Physics</i> , 2020, 59, SFFB01. | 0.8 | 4 |
| 420 | Thermoelectric properties of S-doped Cu ₂ Se materials synthesized by high-pressure and high-temperature method. <i>Modern Physics Letters B</i> , 2020, 34, 2050006. | 1.0 | 4 |
| 421 | Synergetic Approach for Superior Thermoelectric Performance in PbTe-PbSe-PbS Quaternary Alloys and Composites. <i>Energies</i> , 2020, 13, 72. | 1.6 | 9 |
| 422 | Thermoelectric Properties of Polypyrrole Nanotubes. <i>Macromolecular Research</i> , 2020, 28, 973-978. | 1.0 | 15 |
| 423 | Analysis of structural and electronic properties of NiTiZ (Z = Si, Ge, Sn and Sb) under high-pressure using ab initio calculations. <i>Materials Today Communications</i> , 2020, 25, 101613. | 0.9 | 4 |
| 424 | Growth mechanism during the early stages of electrodeposition of bismuth telluride Bi ₂ Te ₃ on ITO substrate. <i>Materials Today: Proceedings</i> , 2020, 30, 842-848. | 0.9 | 9 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|------|-----------|
| 425 | Quenching Thermal Transport in Aperiodic Superlattices: A Molecular Dynamics and Machine Learning Study. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 8795-8804. | 4.0 | 39 |
| 426 | Hierarchically nanostructured thermoelectric materials: challenges and opportunities for improved power factors. <i>European Physical Journal B</i> , 2020, 93, 1. | 0.6 | 12 |
| 427 | Active learning for the power factor prediction in diamond-like thermoelectric materials. <i>Npj Computational Materials</i> , 2020, 6, . | 3.5 | 43 |
| 428 | Ultralow thermal conductivity and high thermoelectric figure of merit in Cu ₂ Te- ϵ -Ag ₂ Te composites. <i>Journal of Alloys and Compounds</i> , 2020, 848, 156540. | 2.8 | 13 |
| 429 | Enhanced mechanical and thermoelectric properties enabled by hierarchical structure in medium-temperature Sb ₂ Te ₃ based alloys. <i>Nano Energy</i> , 2020, 78, 105228. | 8.2 | 26 |
| 430 | Electronic conductance and thermopower of single-molecule junctions of oligo(phenyleneethynylene) derivatives. <i>Nanoscale</i> , 2020, 12, 18908-18917. | 2.8 | 15 |
| 431 | Cu ₂ Se-Based liquid-like thermoelectric materials: looking back and stepping forward. <i>Energy and Environmental Science</i> , 2020, 13, 3307-3329. | 15.6 | 106 |
| 432 | Improvement of Thermoelectric Properties of Evaporated ZnO:Al Films by CNT and Au Nanocomposites. <i>Journal of Physical Chemistry C</i> , 2020, 124, 12713-12722. | 1.5 | 8 |
| 433 | Approaching high-performance of ordered structure Sb ₂ Te ₃ film via unique angular intraplanar grain boundaries. <i>Scientific Reports</i> , 2020, 10, 5978. | 1.6 | 6 |
| 434 | Preparation, structural characteristics and optical parameters of the synthesized nano-crystalline sulphur-doped Bi ₂ Te _{2.85} Se _{0.15} thermoelectric materials. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 10612-10627. | 1.1 | 12 |
| 435 | Enhanced thermoelectric properties of hydrothermally synthesized n-type Se&Lu-codoped Bi ₂ Te ₃ . <i>Journal of Advanced Ceramics</i> , 2020, 9, 424-431. | 8.9 | 34 |
| 436 | Enhanced performance nanostructured thermoelectric converter for self-powering health sensors. <i>Nano Energy</i> , 2020, 74, 104854. | 8.2 | 18 |
| 437 | Enhanced Thermoelectric Performance of Bi _{0.46} Sb _{1.54} Te ₃ Nanostructured with CdTe. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 26330-26341. | 4.0 | 26 |
| 438 | Optical, optoelectronic, and photoelectric properties in moiré superlattices of twist bilayer graphene. <i>Materials Today Physics</i> , 2020, 14, 100238. | 2.9 | 26 |
| 439 | Thermoelectric properties and magnetoelectric coupling in dually doped Cu ₂ Sn _{1-2x} Zn _x FexS ₃ . <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 11801-11809. | 1.1 | 5 |
| 440 | Correlation with the composition of the different parts of p-type Bi _{0.5} Sb _{1.5} Te ₃ sintered bulks and their thermoelectric characteristics. <i>Journal of Alloys and Compounds</i> , 2020, 845, 156114. | 2.8 | 1 |
| 441 | Microscopic origin of the extremely low thermal conductivity and outstanding thermoelectric performance of BiSbX ₃ (X = S, Se) revealed by first-principles study. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 15559-15566. | 1.3 | 12 |
| 442 | Influence of spherical inclusions on effective thermoelectric properties of thermoelectric composite materials. <i>Chinese Physics B</i> , 2020, 29, 057301. | 0.7 | 5 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|------|-----------|
| 443 | Conversion efficiency and effective properties of particulate-reinforced thermoelectric composites. <i>Zeitschrift Fur Angewandte Mathematik Und Physik</i> , 2020, 71, 1. | 0.7 | 4 |
| 444 | Advanced Thermoelectric Design: From Materials and Structures to Devices. <i>Chemical Reviews</i> , 2020, 120, 7399-7515. | 23.0 | 1,248 |
| 445 | Promoted application potential of p-type Mg ₃ Sb _{1.5} Bi _{0.5} for the matched thermal expansion with its n-type counterpart. <i>Journal of Materiomics</i> , 2020, 6, 729-735. | 2.8 | 13 |
| 446 | Manipulating the Ge Vacancies and Ge Precipitates through Cr Doping for Realizing the High-Performance GeTe Thermoelectric Material. <i>Small</i> , 2020, 16, e1906921. | 5.2 | 129 |
| 447 | Study of heat conduction in three-layered structure—a sandwich model. <i>Physica Scripta</i> , 2020, 95, 045222. | 1.2 | 1 |
| 448 | Enhanced Thermoelectric and Mechanical Performance in n-Type Yb-Filled Skutterudites through Aluminum Alloying. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 12930-12937. | 4.0 | 23 |
| 449 | A thin film efficient pn-junction thermoelectric device fabricated by self-align shadow mask. <i>Scientific Reports</i> , 2020, 10, 1067. | 1.6 | 25 |
| 450 | High-Performance Thermoelectric SnSe: Aqueous Synthesis, Innovations, and Challenges. <i>Advanced Science</i> , 2020, 7, 1902923. | 5.6 | 156 |
| 451 | Enhanced Thermoelectric Properties of p-Type CaMg ₂ Bi ₂ via a Synergistic Effect Originated from Zn and Alkali-Metal Co-doping. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 6015-6021. | 4.0 | 20 |
| 452 | Novel synthesis and processing effects on the figure of merit for NbCoSn, NbFeSb, and ZrNiSn based half-Heusler thermoelectrics. <i>Journal of Solid State Chemistry</i> , 2020, 285, 121203. | 1.4 | 19 |
| 453 | Enhanced thermopower in (013)-oriented silver selenide films produced by thermal annealing. <i>Applied Physics A: Materials Science and Processing</i> , 2020, 126, 1. | 1.1 | 12 |
| 454 | An efficient mechanism for enhancing the thermoelectricity of twin graphene nanoribbons by introducing defects. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2020, 122, 114160. | 1.3 | 10 |
| 455 | Optimization and modulation for the moderate and high temperature thermoelectric properties of PbSe via solid solution with PbS synthesized by HPHT. <i>Modern Physics Letters B</i> , 2020, 34, 2050185. | 1.0 | 3 |
| 456 | Solubility study of Y in n-type YxCe _{0.15} Co ₄ Sb ₁₂ skutterudites and its effect on thermoelectric properties. <i>Materials Today Physics</i> , 2020, 13, 100206. | 2.9 | 13 |
| 457 | Influence of multi-sintering on the thermoelectric properties of Bi ₂ Sr ₂ Co ₂ O _y ceramics. <i>Modern Physics Letters B</i> , 2020, 34, 2050019. | 1.0 | 11 |
| 458 | Enhanced thermal stability of Bi ₂ Te ₃ -based alloys via interface engineering with atomic layer deposition. <i>Journal of the European Ceramic Society</i> , 2020, 40, 3592-3599. | 2.8 | 11 |
| 459 | Salt doping to improve thermoelectric power factor of organic nanocomposite thin films. <i>RSC Advances</i> , 2020, 10, 11800-11807. | 1.7 | 14 |
| 460 | Review of experimental approaches for improving zT of thermoelectric materials. <i>Materials Science in Semiconductor Processing</i> , 2021, 121, 105303. | 1.9 | 91 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 461 | Heterostructured Bismuth Telluride Selenide Nanosheets for Enhanced Thermoelectric Performance. <i>Small Science</i> , 2021, 1, 2000021. | 5.8 | 16 |
| 462 | The thermoelectric performance of nanoporous SnSe assembled by hollow cage cluster. <i>Applied Surface Science</i> , 2021, 537, 147692. | 3.1 | 2 |
| 463 | State of the art in composition, fabrication, characterization, and modeling methods of cement-based thermoelectric materials for low-temperature applications. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 137, 110361. | 8.2 | 24 |
| 464 | Transport properties of a molybdenum antimonide-telluride with dispersed NiSb nanoparticles. <i>Materials Chemistry and Physics</i> , 2021, 260, 124061. | 2.0 | 1 |
| 465 | Thermoelectric transport properties in chalcogenides ZnX (X=S, Se): From the role of electron-phonon couplings. <i>Journal of Materiomics</i> , 2021, 7, 310-319. | 2.8 | 24 |
| 466 | Two-dimensional WS ₂ /MoS ₂ heterostructures: properties and applications. <i>Nanoscale</i> , 2021, 13, 5594-5619. | 2.8 | 73 |
| 467 | Zintl phases for thermoelectric applications. , 2021, , 157-182. | | 6 |
| 468 | Hydrogenation and oxidation enhances the thermoelectric performance of Si ₂ BN monolayer. <i>New Journal of Chemistry</i> , 2021, 45, 3892-3900. | 1.4 | 8 |
| 469 | Progress of hybrid nanocomposite materials for thermoelectric applications. <i>Materials Advances</i> , 2021, 2, 1927-1956. | 2.6 | 22 |
| 470 | Ionic thermoelectric materials for near ambient temperature energy harvesting. <i>Applied Physics Letters</i> , 2021, 118, . | 1.5 | 40 |
| 471 | Pressure-Induced Enhancement of Thermoelectric Figure of Merit and Structural Phase Transition in TiNiSn. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 1046-1051. | 2.1 | 12 |
| 472 | Ultra-high Seebeck coefficient of nanostructured Sb-substituted PbTe and fabrication of a thermoelectric generator module. <i>Bulletin of Materials Science</i> , 2021, 44, 1. | 0.8 | 4 |
| 473 | Enhanced thermoelectric efficiency of the bulk composites consisting of Bi ₂ Te ₃ matrix and Ni@NiTe ₂ inclusions. <i>Scripta Materialia</i> , 2021, 194, 113710. | 2.6 | 11 |
| 474 | Chemical Route to Yb ₁₄ MgSb ₁₁ Composites with Nanosized Iron Inclusions for the Reduction of Thermal Conductivity. <i>ACS Applied Energy Materials</i> , 2021, 4, 3748-3756. | 2.5 | 6 |
| 475 | The multi-dimensional approach to synergistically improve the performance of inorganic thermoelectric materials: A critical review. <i>Arabian Journal of Chemistry</i> , 2021, 14, 103103. | 2.3 | 17 |
| 476 | Forming the locally-gradient Ni@NiTe ₂ domains from initial Ni inclusions embedded into thermoelectric Bi ₂ Te ₃ matrix. <i>Materials Letters</i> , 2021, 290, 129451. | 1.3 | 9 |
| 477 | Synthesis and Properties of Thermoelectric Nanomaterial AgInSe ₂ with a Chalcopyrite Structure. <i>Nanobiotechnology Reports</i> , 2021, 16, 357-362. | 0.2 | 1 |
| 478 | Boosting Thermoelectric Mechanical Properties of BiSb-Based Material by SiC Nanocomposites. <i>Jom</i> , 2021, 73, 2808-2818. | 0.9 | 4 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 479 | Enhanced Thermoelectric Properties of Graphene/Cu ₃ SbSe ₄ Composites. <i>Journal of Electronic Materials</i> , 2021, 50, 4880-4886. | 1.0 | 2 |
| 480 | On thermal stability of nanocrystalline Ag-Cu-S powders. <i>Journal of Nanoparticle Research</i> , 2021, 23, 1. | 0.8 | 3 |
| 481 | Stretchable and Freeze-Tolerant Organohydrogel Thermocells with Enhanced Thermoelectric Performance Continually Working at Subzero Temperatures. <i>Advanced Functional Materials</i> , 2021, 31, 2104071. | 7.8 | 53 |
| 482 | Ceramic composites based on Ca Co O and La NiO with enhanced thermoelectric properties. <i>Open Ceramics</i> , 2021, 6, 100103. | 1.0 | 5 |
| 483 | Effect of CuI on the thermoelectric properties of recycled n-type Bi ₂ (Te, Se) ₃ scraps. <i>Vacuum</i> , 2021, 189, 110226. | 1.6 | 1 |
| 484 | Gel-based thermocells for low-grade heat harvesting. <i>Europhysics Letters</i> , 2021, 135, 26001. | 0.7 | 10 |
| 485 | Room-temperature thermoelectric materials: Challenges and a new paradigm. <i>Journal of Materiomics</i> , 2022, 8, 427-436. | 2.8 | 34 |
| 486 | Microstructure and thermoelectric properties of the medium-entropy block-textured BiSbTe _{1.5} Se _{1.5} alloy. <i>Journal of Alloys and Compounds</i> , 2021, 872, 159743. | 2.8 | 13 |
| 487 | Hot rolling process for texture development and grain refinement of n-type Bi ₂ Te ₃ alloys. <i>Materials Letters</i> , 2021, 301, 130278. | 1.3 | 2 |
| 488 | A record high average ZT over a wide temperature range in a Single-layer Sb ₂ Si ₂ Te ₆ . <i>Applied Surface Science</i> , 2021, 567, 150873. | 3.1 | 3 |
| 489 | Expand band gap and suppress bipolar excitation to optimize thermoelectric performance of Bi _{0.35} Sb _{1.65} Te ₃ sintered materials. <i>Materials Today Physics</i> , 2021, 21, 100544. | 2.9 | 15 |
| 490 | One way for thermoelectric performance enhancement of group IIIB monochalcogenides. <i>Solid State Communications</i> , 2021, 339, 114485. | 0.9 | 0 |
| 491 | Thermoelectric materials and transport physics. <i>Materials Today Physics</i> , 2021, 21, 100519. | 2.9 | 77 |
| 492 | The thermoelectric and mechanical properties of Mg ₂ (Si _{0.3} Sn _{0.7}) _{0.99} Sb _{0.01} prepared by one-step solid state reaction combined with hot-pressing. <i>Journal of Alloys and Compounds</i> , 2021, 881, 160546. | 2.8 | 3 |
| 493 | Thin-films on cellulose paper to construct thermoelectric generator of promising power outputs suitable for low-grade heat recovery. <i>Materials Today Communications</i> , 2021, 29, 102738. | 0.9 | 13 |
| 494 | Constructing multi-type defects in In _{0.1} Sb _{1.9} Te ₃ -(MgB ₂) composites: Simultaneously enhancing the thermoelectric and mechanical properties. <i>Nano Energy</i> , 2021, 90, 106530. | 8.2 | 10 |
| 495 | Enhanced thermoelectric performance and mechanical strength of n-type BiTeSe materials produced via a composite strategy. <i>Chemical Engineering Journal</i> , 2022, 428, 131205. | 6.6 | 26 |
| 496 | N-type amorphous silicon-germanium thin films with embedded nanocrystals as a novel thermoelectric material of elevated ZT. <i>Journal of Alloys and Compounds</i> , 2022, 890, 161843. | 2.8 | 17 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 497 | Optimization of thermoelectric power factor of (013)-oriented Ag ₂ Se films via thermal annealing. <i>Materials Research Bulletin</i> , 2022, 145, 111525. | 2.7 | 9 |
| 498 | Polymer and polymer-based nanocomposite materials for energy. , 2021, , 237-262. | | 0 |
| 499 | Thermoelectric Heusler Compounds. <i>Springer Series in Materials Science</i> , 2016, , 249-267. | 0.4 | 3 |
| 500 | Thermal transport in thermoelectric materials with chemical bond hierarchy. <i>Journal of Physics Condensed Matter</i> , 2019, 31, 183002. | 0.7 | 19 |
| 501 | Optimizing phonon scattering by tuning surface-interdiffusion-driven intermixing to break the random-alloy limit of thermal conductivity. <i>Physical Review Materials</i> , 2018, 2, . | 0.9 | 4 |
| 502 | Time-Dependent Morphological Evolution of Bi ₂ Te ₃ Nanotubes: A Potential Material for Thermoelectric Applications. <i>ECS Journal of Solid State Science and Technology</i> , 2020, 9, 105006. | 0.9 | 4 |
| 503 | Microstructure and Electrical Characterization of Thermoelectric Nanocrystalline Bi ₂ Te ₃ Synthesized by Mechanical Alloying. <i>Materials Research</i> , 2019, 22, . | 0.6 | 7 |
| 504 | The Influence of Leg Shape on Thermoelectric Performance Under Constant Temperature and Heat Flux Boundary Conditions. <i>Frontiers in Materials</i> , 2020, 7, . | 1.2 | 21 |
| 505 | The Electronic Transport Channel Protection and Tuning in Real Space to Boost the Thermoelectric Performance of Mg ₃ Sb ₂ Bi near Room Temperature. <i>Research</i> , 2020, 2020, 1672051. | 2.8 | 29 |
| 506 | Effect of Ag additions on the Bi _{1.6} Pb _{0.4} Sr ₂ Co _{1.8} O _x thermoelectric properties. <i>Boletín De La Sociedad Española De Cerámica Y Vidrio</i> , 2013, 52, 93-97. | | |
| 507 | Design and Preparation of High-Performance Bulk Thermoelectric Materials with Defect Structures. <i>Journal of the Korean Ceramic Society</i> , 2017, 54, 75-85. | 1.1 | 25 |
| 508 | Wybrane możliwości zastosowania nanostruktur w inżynierii środowiska. <i>Journal of Civil Engineering, Environment and Architecture</i> , 2015, XXXII, 611-617. | 0.0 | 1 |
| 509 | Effect of Co-Doping on Thermoelectric Properties of n-Type Bi ₂ Te ₃ Nanostructures Fabricated Using a Low-Temperature Sol-Gel Method. <i>Nanomaterials</i> , 2021, 11, 2719. | 1.9 | 5 |
| 510 | Bismuth induced Cu ₇ Te ₄ /Sb ₂ Te ₃ nanocomposites for higher thermoelectric power factor and carrier properties. <i>Journal of Materials Science: Materials in Electronics</i> , 2022, 33, 8804-8814. | 1.1 | 1 |
| 511 | MODEL OF FeSi ₂ NANOCRYSTALLITE ÆEMERSIONÆ-PROCESS DURING SILICON LAYER OVERGROWTH. , 2013, , . | | 0 |
| 512 | Thermoelectric properties of the Bi ₂ Te ₃ nanocrystalline bulk alloy pressed by the high-pressure sintering. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2015, 64, 047201. | 0.2 | 0 |
| 513 | High Thermoelectric Performance due to Nanoprecipitation, Band Convergence, and Interface Potential Barrier in PbTe-PbSe-PbS Quaternary Alloys and Composites. , 2019, , 105-136. | | 0 |
| 515 | Interfacial engineering effect and bipolar conduction of Ni-doped MoS ₂ nanostructures for thermoelectric application. <i>Journal of Alloys and Compounds</i> , 2022, 895, 162493. | 2.8 | 24 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|------|-----------|
| 516 | Conducting polymer electrodes in electrochemical cells for waste heat harvesting. , 2019, , . | | 0 |
| 517 | Thermal Conductivity of Nanostructured Semiconductor Alloys. , 2020, , 917-951. | | 2 |
| 518 | The Quest for High-Efficiency Thermoelectric Generators for Extracting Electricity from Waste Heat. Jom, 2021, 73, 4070-4084. | 0.9 | 2 |
| 519 | Achieving synergistic performance through highly compacted microcrystalline rods induced in Mo doped GeTe based compounds. Materials Today Physics, 2022, 22, 100571. | 2.9 | 3 |
| 520 | Porous Mg ₂ (SiSn) thermoelectric composite with ultra-low thermal conductivity in submillimeter scale. Applied Physics A: Materials Science and Processing, 2021, 127, . | 1.1 | 2 |
| 521 | Accurate and explainable machine learning for the power factors of diamond-like thermoelectric materials. Journal of Materiomics, 2022, 8, 633-639. | 2.8 | 4 |
| 522 | Improved thermoelectric properties in ceramic composites based on Ca ₃ Co ₄ O ₉ and Na ₂ Ca ₂ Nb ₄ O ₁₃ . Open Ceramics, 2021, 8, 100198. | 1.0 | 1 |
| 523 | A comprehensive study on piezo-phototronic effect for increasing efficiency of solar cells: A review. Optics and Laser Technology, 2022, 149, 107779. | 2.2 | 7 |
| 524 | Carrier grain boundary scattering in thermoelectric materials. Energy and Environmental Science, 2022, 15, 1406-1422. | 15.6 | 145 |
| 525 | Realizing synergistic optimization of thermoelectric properties in n-type BiSbSe ₃ polycrystals via co-doping zirconium and halogen. Materials Today Physics, 2022, 22, 100608. | 2.9 | 7 |
| 526 | Nanostructured Bulk Thermoelectric Materials for Energy Harvesting. NIMS Monographs, 2022, , 199-231. | 0.1 | 5 |
| 527 | Flexible and wearable thermoelectric PEDOT devices. , 2022, , 219-256. | | 1 |
| 528 | Thermoelectric and Photothermoelectric Properties of Nanocomposite Films Based on Polybenzimidazole and Carbon Nanotubes. ACS Applied Electronic Materials, 2022, 4, 386-393. | 2.0 | 8 |
| 529 | Features of microstructure and thermoelectric properties of the cermet composites based on grained Bi ₂ Te ₃ matrix with locally-gradient Ni@NiTe ₂ inclusions. Chinese Journal of Physics, 2022, 77, 24-35. | 2.0 | 6 |
| 530 | Cheap, Large-Scale, and High-Performance Graphite-Based Flexible Thermoelectric Materials and Devices with Supernormal Industry Feasibility. ACS Applied Materials & Interfaces, 2022, 14, 8066-8075. | 4.0 | 16 |
| 531 | The Effect of Reactive Electric Field-Assisted Sintering of MoS ₂ /Bi ₂ Te ₃ Heterostructure on the Phase Integrity of Bi ₂ Te ₃ Matrix and the Thermoelectric Properties. Materials, 2022, 15, 53. | 1.3 | 11 |
| 532 | Electronic and Lattice Thermal Conductivity Switching by 3D \rightarrow 2D Crystal Structure Transition in Nonequilibrium (Pb _{1-x} Sn _x)Se. Advanced Electronic Materials, 2022, 8, . | 2.6 | 6 |
| 533 | High-throughput optimization and fabrication of Bi ₂ Te _{2.7} Se _{0.3} -based artificially tilted multilayer thermoelectric devices. Journal of the European Ceramic Society, 2022, 42, 3913-3919. | 2.8 | 2 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 534 | Electronic Topological Transition as a Route to Improve Thermoelectric Performance in $\text{Bi}_{0.5}\text{Sb}_{1.5}\text{Te}_3$. <i>Advanced Science</i> , 2022, 9, e2105709. | 5.6 | 6 |
| 535 | Thermoelectric films and periodic structures and spin Seebeck effect systems: facets of performance optimization. <i>Materials Today Energy</i> , 2022, 25, 100965. | 2.5 | 19 |
| 536 | Novel Wearable Pyrothermoelectric Hybrid Generator for Solar Energy Harvesting. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 17330-17339. | 4.0 | 12 |
| 537 | Reaction Sintering of $\text{Ca}_3\text{Co}_4\text{O}_9$ with BiCuSeO Nanosheets for High-Temperature Thermoelectric Composites. <i>Journal of Electronic Materials</i> , 2022, 51, 532-542. | 1.0 | 2 |
| 538 | Enhancement of high temperature thermoelectric performance of cobaltite based materials for automotive exhaust thermoelectric generators. <i>Smart Materials and Structures</i> , 2022, 31, 025017. | 1.8 | 1 |
| 539 | Homo-composition and hetero-structure nanocomposite $\text{Pnma Bi}_2\text{Se}_2$ - $\text{Pnm Bi}_2\text{Se}_2$ with high thermoelectric performance. <i>Nature Communications</i> , 2021, 12, 7192. | 5.8 | 22 |
| 540 | Challenges for Thermoelectric Power Generation: From a Material Perspective. , 0, 1, . | | 14 |
| 542 | Investigations on the thermoelectric and thermodynamic properties of $\text{Y}_{2}\text{CT}_{2}$ ($T = \text{O}, \text{F}, \text{OH}$). <i>RSC Advances</i> , 2022, 12, 14377-14383. | 1.7 | 3 |
| 543 | Flexible Organic Thermoelectric Nanocomposites: Transport Properties and Applications. , 2023, , 666-684. | | 1 |
| 544 | Ultra-low thermal conductivity through the reduced phonon lifetime by microstructural and Umklapp scattering in $\text{Sn}_{1-x}\text{MnxSe}$ nanostructures. <i>Journal of Alloys and Compounds</i> , 2022, 917, 165152. | 2.8 | 6 |
| 545 | Structure, Magnetic and Thermoelectric Properties of High Entropy Selenides $\text{Bi}_{0.6}\text{Sb}_{0.6}\text{In}_{0.4}\text{Cr}_{0.4}\text{Se}_3$. , 0, 1, . | | 2 |
| 546 | Asymmetrical Transport Distribution Function: Skewness as a Key to Enhance Thermoelectric Performance. <i>Research</i> , 2022, 2022, . | 2.8 | 6 |
| 547 | Energy-Saving Pathways for Thermoelectric Nanomaterial Synthesis: Hydrothermal/Solvothermal, Microwave-Assisted, Solution-Based, and Powder Processing. <i>Advanced Science</i> , 2022, 9, . | 5.6 | 60 |
| 548 | Significantly improved thermoelectric properties of Nb-doped ZrNiSn half-Heusler compounds. <i>Chemical Engineering Journal</i> , 2022, 449, 137898. | 6.6 | 11 |
| 549 | Data-Driven Enhancement of ZT in SnSe -Based Thermoelectric Systems. <i>Journal of the American Chemical Society</i> , 2022, 144, 13748-13763. | 6.6 | 16 |
| 550 | Enhancing thermoelectric properties of isotope graphene nanoribbons via machine learning guided manipulation of disordered antidots and interfaces. <i>International Journal of Heat and Mass Transfer</i> , 2022, 197, 123332. | 2.5 | 4 |
| 551 | Extraordinary thermoelectric performance, thermal stability and mechanical properties of n-type $\text{Mg}_3\text{Sb}_{1.5}\text{Bi}_{0.5}$ through multi-dopants at interstitial site. <i>Materials Today Physics</i> , 2022, 27, 100835. | 2.9 | 8 |
| 552 | Thermoelectric Nanostructured Perovskite Materials. , 0, , . | | 1 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|------|-----------|
| 553 | Optimization of Co additive amount to improve thermoelectric properties of FeSi_2 . Japanese Journal of Applied Physics, 2022, 61, 111002. | 0.8 | 3 |
| 554 | Skin-Deep Aspect of Thermopower in Bi_2Q_3 , PbQ , and BiCuQO ($\text{Q} = \text{Se}, \text{Te}$): Hidden One-Dimensional Character of Their Band Edges Leading to High Thermopower. Accounts of Chemical Research, 2022, 55, 2811-2820. | 7.6 | 1 |
| 555 | Insights into the Classification of Nano-inclusions of Composites for Thermoelectric Applications. ACS Applied Electronic Materials, 2022, 4, 4781-4796. | 2.0 | 7 |
| 556 | Thermoelectric Properties of PEDOT:PSS Containing Connected Copper Selenide Nanowires Synthesized by the Photoreduction Method. ACS Omega, 2022, 7, 32101-32107. | 1.6 | 6 |
| 557 | Enhancing thermoelectric properties of p-type $(\text{Bi}, \text{Sb})_2\text{Te}_3$ via porous structures. Ceramics International, 2023, 49, 4305-4312. | 2.3 | 5 |
| 558 | Ultrahigh thermoelectric performance of Janus Te_2 and SeTe_2 monolayers. Physical Chemistry Chemical Physics, 0, , . | 1.3 | 0 |
| 559 | Thermoelectric Materials. , 2022, , . | | 0 |
| 560 | Comprehensive Insight into p-Type Bi_2Te_3 -Based Thermoelectrics near Room Temperature. ACS Applied Materials & Interfaces, 2022, 14, 49425-49445. | 4.0 | 25 |
| 561 | First-Principles Investigation of Structural, Thermoelectric, and Optical Properties of Half-Heusler Compound ScRhTe under Varied Pressure. Crystals, 2022, 12, 1472. | 1.0 | 3 |
| 562 | Microstructure change and thermal conductivity reduction in p-type BiSbTe thermoelectric materials using a metal fatty acid as process control agent. Applied Surface Science, 2023, 611, 155643. | 3.1 | 4 |
| 563 | Nanoheterojunction-Mediated Thermoelectric Strategy for Cancer Surgical Adjuvant Treatment and Bi_2Te_3 Element Combination Therapy. Advanced Materials, 2023, 35, . | 11.1 | 24 |
| 564 | Insights into interfacial thermal conductance in Bi_2Te_3 -based systems for thermoelectrics. Materials Today Physics, 2023, 30, 100953. | 2.9 | 7 |
| 565 | Comparative analysis of morphology 1D and 2D particles effect in starting powders on microstructure and thermoelectric properties of grained $\text{Bi}_2\text{Te}_2.7\text{Se}_0.3$ compound. Solid State Sciences, 2023, 135, 107083. | 1.5 | 1 |
| 566 | The effect of interdiffusion during formation of epitaxial Ca intercalated layered silicene film on its thermoelectric power factor. Japanese Journal of Applied Physics, 2023, 62, SD1004. | 0.8 | 1 |
| 567 | Ultrahigh power factor in thermally evaporated $\text{Bi}/\text{Ag}_2\text{Se}$ bi-layer obtained using thermal inter-diffusion. Journal of Applied Physics, 2022, 132, 235303. | 1.1 | 0 |
| 568 | Recent Developments in Thermoelectric Generation: A Review. Sustainability, 2022, 14, 16821. | 1.6 | 11 |
| 569 | Selective Dissolution-Derived Nanoporous Design of Impurity-Free Bi_2Te_3 Alloys with High Thermoelectric Performance. Small, 2023, 19, . | 5.2 | 4 |
| 570 | Anomalous grain growth in sintered $\text{Bi}_2\text{Ca}_2\text{Co}_2\text{xCu}_\text{y}\text{O}_\text{z}$ + Ag ceramic composites by Cu doping. Journal of Materials Science: Materials in Electronics, 2023, 34, . | 1.1 | 1 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|------|-----------|
| 571 | Fine Tuning of Defects Enables High Carrier Mobility and Enhanced Thermoelectric Performance of n-Type PbTe. <i>Chemistry of Materials</i> , 2023, 35, 755-763. | 3.2 | 22 |
| 572 | Improved Thermoelectric Performance of NbCoSb with Intrinsic Nb Vacancies and Ni-Doping-Induced Band Degeneracy. <i>ACS Applied Energy Materials</i> , 0, , . | 2.5 | 1 |
| 573 | Grain boundary engineering strategy for simultaneously reducing the electron concentration and lattice thermal conductivity in n-type Bi ₂ Te _{2.7} Se _{0.3} -based thermoelectric materials. <i>Journal of the European Ceramic Society</i> , 2023, 43, 3376-3382. | 2.8 | 7 |
| 574 | Uplimit (ZT) _{max} and effective merit parameter B* of thermoelectric semiconductors. <i>Materials Today Physics</i> , 2023, 31, 100989. | 2.9 | 3 |
| 575 | Revealing the decisive factors of the lattice thermal conductivity reduction by electron-phonon interactions in half-Heusler semiconductors. <i>Materials Today Physics</i> , 2023, 31, 100993. | 2.9 | 1 |
| 576 | Tuning Thermoelectric Conversion Performance of BiSbTe/Epoxy Flexible Films with Dot Magnetic Arrays. <i>ACS Applied Materials & Interfaces</i> , 2023, 15, 7112-7119. | 4.0 | 5 |
| 577 | Facile composite engineering to boost thermoelectric power conversion in ZnSb device. <i>Journal of Physics and Chemistry of Solids</i> , 2023, 178, 111329. | 1.9 | 0 |
| 578 | Highly deformable Ag ₂ Te _{1-x} Se _x -based thermoelectric compounds. <i>Materials Today Physics</i> , 2023, 33, 101051. | 2.9 | 1 |
| 579 | Advances in Ag ₂ Se-based thermoelectrics from materials to applications. <i>Energy and Environmental Science</i> , 2023, 16, 1870-1906. | 15.6 | 35 |
| 580 | First-Principle Calculations to Investigate the Elastic, Thermoelectric, and Electronic Performances of XRhSn (X = V, Nb, Ta) Half-Heusler Compounds. <i>Journal of Superconductivity and Novel Magnetism</i> , 0, 0.8 , . | | 1 |
| 581 | Enhancement in Power Factor of Al-Doped Cu ₂ Se Thermoelectric Compound Prepared by Combustion Synthesis via Spark Plasma Sintering Technique. <i>Electronic Materials Letters</i> , 0, , . | 1.0 | 0 |
| 582 | TEXplorer.org: Thermoelectric material properties data platform for experimental and first-principles calculation results. <i>APL Materials</i> , 2023, 11, . | 2.2 | 4 |