N S Chauhan

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Role of sintering temperature on electronic and mechanical properties of thermoelectric material: A theoretical and experimental study of TiCoSb half-Heusler alloy. Materials Chemistry and Physics, 2022, 281, 125854.	4.0	11
2	Contrasting role of bismuth doping on the thermoelectric performance of VFeSb half-Heusler. Journal of Alloys and Compounds, 2022, 908, 164623.	5.5	10
3	In Situ Evolution of Secondary Metallic Phases in Off-Stoichiometric ZrNiSn for Enhanced Thermoelectric Performance. ACS Applied Materials & Interfaces, 2022, 14, 19579-19593.	8.0	18
4	Low lattice thermal conductivity and microstructural evolution in VFeSb half-Heusler alloys. Materialia, 2022, 22, 101430.	2.7	12
5	CoSb3 based thermoelectric elements pre-requisite for device fabrication. Solid State Sciences, 2022, 129, 106900.	3.2	8
6	Melt-Spun SiGe Nano-Alloys: Microstructural Engineering Towards High Thermoelectric Efficiency. Journal of Electronic Materials, 2021, 50, 364-374.	2.2	5
7	High Thermoelectric Performance in n-Type Degenerate ZrNiSn-Based Half-Heusler Alloys Driven by Enhanced Weighted Mobility and Lattice Anharmonicity. ACS Applied Energy Materials, 2021, 4, 3393-3403.	5.1	30
8	Compositional Fluctuations Mediated by Excess Tellurium in Bismuth Antimony Telluride Nanocomposites Yield High Thermoelectric Performance. Journal of Physical Chemistry C, 2021, 125, 20184-20194.	3.1	10
9	Tuning the Plasmonic Response of AuGe Nanoparticles on GaAs Substrates: Implications for Photodetectors. ACS Applied Nano Materials, 2021, 4, 9566-9583.	5.0	4
10	Synergistic Optimization of Electronic and Thermal Transport Properties for Achieving High <i>ZT</i> in Ni and Te Co-substituted CoSb ₃ . ACS Applied Energy Materials, 2021, 4, 14210-14219.	5.1	11
11	Band Structure Modification and Mass Fluctuation Effects of Isoelectronic Germanium-Doping on Thermoelectric Properties of ZrNiSn. ACS Applied Energy Materials, 2020, 3, 1349-1357.	5.1	27
12	Scalable colloidal synthesis of Bi ₂ Te _{2.7} Se _{0.3} plate-like particles give access to a high-performing n-type thermoelectric material for low temperature application. Nanoscale Advances, 2020, 2, 5699-5709.	4.6	13
13	Compositional modulation is driven by aliovalent doping in n-type TiCoSb based half-Heuslers for tuning thermoelectric transport. Intermetallics, 2020, 125, 106914.	3.9	16
14	Defect Engineering for Enhancement of Thermoelectric Performance of (Zr, Hf)NiSn-Based n-type Half-Heusler Alloys. Journal of Physical Chemistry C, 2020, 124, 8584-8593.	3.1	43
15	Facile bulk synthesis of high performance β-Zn4Sb3 for thermoelectric applications. Materials Letters, 2020, 265, 127428.	2.6	4
16	Optimization of electrical and thermal transport properties of Fe0.25Co0.75Sb3 Skutterudite employing the isoelectronic Bi-doping. Intermetallics, 2020, 123, 106796.	3.9	10
17	Enhanced Thermoelectric Performance in Hf-Free p-Type (Ti, Zr)CoSb Half-Heusler Alloys. Journal of Electronic Materials, 2019, 48, 6700-6709.	2.2	29
18	Enhancement in thermoelectric performance of single step synthesized Mg doped Cu2Se: An experimental and theoretical study. Intermetallics, 2019, 112, 106541.	3.9	29

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19	Collective Effect of Fe and Se To Improve the Thermoelectric Performance of Unfilled p-Type CoSb ₃ Skutterudites. ACS Applied Energy Materials, 2019, 2, 1067-1076.	5.1	32
20	Compositional Tailoring for Realizing High Thermoelectric Performance in Hafnium-Free n-Type ZrNiSn Half-Heusler Alloys. ACS Applied Materials & Interfaces, 2019, 11, 47830-47836.	8.0	52
21	Spinodal decomposition in (Ti, Zr)CoSb half-Heusler: A nanostructuring route toward high efficiency thermoelectric materials. Journal of Applied Physics, 2019, 126, .	2.5	20
22	Melt spinning: A rapid and cost effective approach over ball milling for the production of nanostructured p-type Si80Ge20 with enhanced thermoelectric properties. Journal of Alloys and Compounds, 2019, 781, 344-350.	5.5	6
23	Enhanced thermoelectric performance in p-type ZrCoSb based half-Heusler alloys employing nanostructuring and compositional modulation. Journal of Materiomics, 2019, 5, 94-102.	5.7	44
24	Tin doped Cu3SbSe4: A stable thermoelectric analogue for the mid-temperature applications. Materials Research Bulletin, 2019, 113, 38-44.	5.2	15
25	Thermoelectric properties of p-type sb-doped Cu2SnSe3 near room and mid temperature applications. Applied Physics A: Materials Science and Processing, 2018, 124, 1.	2.3	23
26	Facile synthesis of earth-abundant and non-toxic p-type Si96B4/SiCp nanocomposites with enhanced thermoelectric performance. Materials Science in Semiconductor Processing, 2018, 75, 234-238.	4.0	6
27	Vanadium-Doping-Induced Resonant Energy Levels for the Enhancement of Thermoelectric Performance in Hf-Free ZrNiSn Half-Heusler Alloys. ACS Applied Energy Materials, 2018, 1, 757-764.	5.1	63
28	Tuning the thermoelectric properties by manipulating copper in Cu2SnSe3 system. Journal of Alloys and Compounds, 2018, 748, 273-280.	5.5	13
29	Facile synthesis of nanostructured n-type SiGe alloys with enhanced thermoelectric performance using rapid solidification employing melt spinning followed by spark plasma sintering. Current Applied Physics, 2018, 18, 1540-1545.	2.4	11
30	Enhancement in thermoelectric performance of bulk CrSi2 dispersed with nanostructured SiGe nanoinclusions. Journal of Alloys and Compounds, 2018, 765, 412-417.	5.5	23
31	Modulating the lattice dynamics of n-type Heusler compounds via tuning Ni concentration. Applied Physics Letters, 2018, 113, .	3.3	22
32	Compositional tuning of ZrNiSn half-Heusler alloys: Thermoelectric characteristics and performance analysis. Journal of Physics and Chemistry of Solids, 2018, 123, 105-112.	4.0	59
33	Facile fabrication of p- and n-type half-Heusler alloys with enhanced thermoelectric performance and low specific contact resistance employing spark plasma sintering. Materials Letters, 2018, 228, 250-253.	2.6	15
34	A nanocomposite approach for enhancement of thermoelectric performance in Hafnium-free Half-Heuslers. Materialia, 2018, 1, 168-174.	2.7	26
35	The effect of carbon nanotubes (CNT) on thermoelectric properties of lead telluride (PbTe) nanocubes. Current Applied Physics, 2017, 17, 306-313.	2.4	36
36	Enhanced thermoelectric performance of Pb doped Cu 2 SnSe 3 synthesized employing spark plasma sintering. Physica B: Condensed Matter, 2017, 512, 39-44.	2.7	24

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37	Low-temperature thermoelectric properties of Pb doped Cu 2 SnSe 3. Physica B: Condensed Matter, 2017, 520, 7-12.	2.7	17
38	Enhancement in thermoelectric performance of SiGe nanoalloys dispersed with SiC nanoparticles. Physical Chemistry Chemical Physics, 2017, 19, 25180-25185.	2.8	36
39	A synergistic combination of atomic scale structural engineering and panoscopic approach in p-type ZrCoSb-based half-Heusler thermoelectric materials for achieving high ZT. Journal of Materials Chemistry C, 2016, 4, 5766-5778.	5.5	39
40	The low and high temperature thermoelectric properties of Sb doped Cu 2 SnSe 3. Materials Research Bulletin, 2016, 83, 160-166.	5.2	18
41	Tuning the carrier concentration using Zintl chemistry in Mg ₃ Sb ₂ , and its implications for thermoelectric figure-of-merit. Physical Chemistry Chemical Physics, 2016, 18, 6191-6200.	2.8	59
42	The effect of doping on thermoelectric performance of p-type SnSe: Promising thermoelectric material. Journal of Alloys and Compounds, 2016, 668, 152-158.	5.5	130
43	The role of nanoscale defect features in enhancing the thermoelectric performance of p-type nanostructured SiGe alloys. Nanoscale, 2015, 7, 12474-12483.	5.6	83
44	Giant enhancement in thermoelectric performance of copper selenide by incorporation of different nanoscale dimensional defect features. Nano Energy, 2015, 13, 36-46.	16.0	158
45	Enhanced thermoelectric performance of spark plasma sintered copper-deficient nanostructured copper selenide. Journal of Physics and Chemistry of Solids, 2015, 81, 100-105.	4.0	48
46	Enhanced power factor and reduced thermal conductivity of a half-Heusler derivative Ti9Ni7Sn8: A bulk nanocomposite thermoelectric material. Applied Physics Letters, 2015, 106, 103901.	3.3	24
47	Correlation between microstructure and drastically reduced lattice thermal conductivity in bismuth telluride/bismuth nanocomposites for high thermoelectric figure of merit. Materials Science in Semiconductor Processing, 2015, 40, 453-462.	4.0	16
48	Panoscopically optimized thermoelectric performance of a half-Heusler/full-Heusler based in situ bulk composite Zr _{0.7} Hf _{0.3} Ni _{1+x} Sn: an energy and time efficient way. Physical Chemistry Chemical Physics, 2015, 17, 30090-30101.	2.8	35
49	Mechanical properties and microstructure of spark plasma sintered nanostructured p-type SiGe thermoelectric alloys. Materials and Design, 2015, 87, 414-420.	7.0	31
50	Significantly enhanced thermoelectric figure of merit of p-type Mg ₃ Sb ₂ -based Zintl phase compounds via nanostructuring and employing high energy mechanical milling coupled with spark plasma sintering. Journal of Materials Chemistry A, 2015, 3, 10777-10786.	10.3	76
51	Thermoelectric and mechanical properties of spark plasma sintered Cu3SbSe3 and Cu3SbSe4: Promising thermoelectric materials. Applied Physics Letters, 2014, 105, .	3.3	52
52	Microstructure and mechanical properties of thermoelectric nanostructured n-type silicon-germanium alloys synthesized employing spark plasma sintering. Applied Physics Letters, 2014, 105, .	3.3	41
53	Band structure and transport studies of copper selenide: An efficient thermoelectric material. Applied Physics Letters, 2014, 105, .	3.3	34

54 Nanofluids: Effectual Analysis in Automotive Application. , 2014, , .

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55	Thermoelectric properties of Cu3SbSe3 with intrinsically ultralow lattice thermal conductivity. Journal of Materials Chemistry A, 2014, 2, 15829-15835.	10.3	47
56	Enhanced thermoelectric figure-of-merit in spark plasma sintered nanostructured n-type SiGe alloys. Applied Physics Letters, 2012, 101, .	3.3	133
57	Microstructural features and mechanical properties of Al 5083/SiCp metal matrix nanocomposites produced by high energy ball milling and spark plasma sintering. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 545, 97-102.	5.6	118
58	The Role of Magnetic Interaction on the Thermoelectric Performance of ZrNiSn Halfâ€Heusler Alloys. Physica Status Solidi (A) Applications and Materials Science, 0, , 2100765.	1.8	1