

Theodora Kyratsi

List of Publications by Year in descending order

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119
papers

2,097
citations

236833

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276775

41
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122
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122
docs citations

122
times ranked

2188
citing authors

#	ARTICLE	IF	CITATIONS
1	Preparation of highly efficient thermoelectric Bi-doped Mg ₂ Si _{0.55-x} Sn _{0.4} Gex (x = 0 and 0.05) materials with a scalable mechanical alloying method. Journal of Physics and Chemistry of Solids, 2022, 161, 110472.	1.9	3
2	Key properties of inorganic thermoelectric materialsâ€™tables (version 1). JPhys Energy, 2022, 4, 022002.	2.3	51
3	n-type (Zr,Ti)NiSn half Heusler materials via mechanical alloying: Structure, Sb-doping and thermoelectric properties. Journal of Physics and Chemistry of Solids, 2022, 167, 110735.	1.9	9
4	Reduction of Hf via Hf/Zr Substitution in Mechanically Alloyed (Hf,Ti)CoSb Half-Heusler Solid Solutions. Inorganics, 2022, 10, 51.	1.2	4
5	Design of a Thermoelectric Device for Power Generation through Waste Heat Recovery from Marine Internal Combustion Engines. Energies, 2022, 15, 4075.	1.6	3
6	Electron channeling studies of atom site preference and distribution in doped Mg ₂ Si _{1-x} Sn _x thermoelectrics. Materialia, 2022, 24, 101486.	1.3	0
7	Graphite reinforced silane crosslinked high density polyethylene: The effect of filler loading on the thermal and mechanical properties. Polymer Composites, 2021, 42, 1181-1197.	2.3	6
8	Structure and thermoelectric properties of higher manganese silicides synthesized by pack cementation. Ceramics International, 2021, 47, 243-251.	2.3	8
9	High thermoelectric performance of p-type half-Heusler (Hf,Ti)Co(Sb,Sn) solid solutions fabricated by mechanical alloying. Journal of Alloys and Compounds, 2021, 858, 158330.	2.8	14
10	Highly efficient Mg ₂ Si-based thermoelectric materials: A review on the micro- and nanostructure properties and the role of alloying. , 2021, , 429-466.		0
11	Thermoelectric Performance of Mechanically Mixed Bi _x Sb _{2-x} Te ₃ â€™ABS Composites. Materials, 2021, 14, 1706.	1.3	5
12	Analysis of thermoelectric generator incorporating n-magnesium silicide and p-tetrahedrite materials. Energy Conversion and Management, 2021, 236, 114003.	4.4	16
13	Analysis and Design of a Silicide-Tetrahedrite Thermoelectric Generator Concept Suitable for Large-Scale Industrial Waste Heat Recovery. Energies, 2021, 14, 5655.	1.6	8
14	Improving the carbonation of air lime mortars at ambient conditions via the incorporation of ball-milled quarry waste. Construction and Building Materials, 2021, 301, 124073.	3.2	13
15	Design of an air-cooled thermoelectric generator system through modelling and simulations, for use in cement industries. Materials Today: Proceedings, 2021, 44, 3516-3524.	0.9	14
16	Thermoelectric transport properties of (Ti _{1-x} Al _x)NiSn half-Heusler alloy. Physical Chemistry Chemical Physics, 2020, 22, 1566-1574.	1.3	11
17	Energy Harvesting Technologies for Structural Health Monitoring of Airplane Componentsâ€™A Review. Sensors, 2020, 20, 6685.	2.1	45
18	Tetrahedrite Sintering Conditions: The Cu ₁₁ Mn ₁ Sb ₄ S ₁₃ Case. Journal of Electronic Materials, 2020, 49, 5077-5083.	1.0	7

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19	Synthesis, characterization and thermoelectric performance of Mg ₂ (Si,Sn,Ge) materials using Si-kerf waste from photovoltaic technology. Journal of Alloys and Compounds, 2020, 826, 153933.	2.8	8
20	Enhanced thermoelectric properties in vacuum-annealed Bi _{0.5} Sb _{1.5} Te ₃ thin films fabricated using pulsed laser deposition. Journal of Applied Physics, 2019, 125, 215308.	1.1	9
21	The Initial Stage in Oxidation of ZrNiSn (Half Heusler) Alloy by Oxygen. Materials, 2019, 12, 1509.	1.3	11
22	Recycling Si-kerf from photovoltaics: A very promising route to thermoelectrics. Journal of Alloys and Compounds, 2019, 775, 1036-1043.	2.8	23
23	High thermoelectric performance of Bi _{2-x} Sb _x Te ₃ bulk alloys prepared from non-nanostructured starting powders. Journal of Solid State Chemistry, 2019, 270, 388-397.	1.4	12
24	Effect of ball milling on the carbon sequestration efficiency of serpentinized peridotites. Minerals Engineering, 2018, 120, 66-74.	1.8	19
25	Carbon sequestration via enhanced weathering of peridotites and basalts in seawater. Applied Geochemistry, 2018, 91, 197-207.	1.4	52
26	Ball Milling Effect on the CO ₂ Uptake of Mafic and Ultramafic Rocks: A Review. Geosciences (Switzerland), 2018, 8, 406.	1.0	14
27	Materials for Energy Harvesting. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1800645.	0.8	0
28	Thermoelectric Properties of Bi-doped Mg ₂ Si _{0.6} Sn _{0.4} Solid Solutions Synthesized by Two-step Low Temperature Reaction Combined with Hot Pressing. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1800136.	0.8	12
29	Sustainable exploitation of mafic rock quarry waste for carbon sequestration following ball milling. Resources Policy, 2018, 59, 24-32.	4.2	10
30	Low Temperature Synthesis as a Route for Highly Thermoelectric Efficient Na-doped PbTe. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1800098.	0.8	2
31	Modeling of thermal conductivity in high performing thermoelectric materials. Journal of Physics: Conference Series, 2017, 785, 012004.	0.3	1
32	Effect of antimony-doping and germanium on the highly efficient thermoelectric Si-rich-Mg ₂ (Si,Sn,Ge) materials. Journal of Alloys and Compounds, 2017, 714, 502-513.	2.8	15
33	Synthesis, crystal structure and thermoelectric properties of a new metal telluride Ba ₃ Ag ₃ InTe ₆ . Inorganic Chemistry Frontiers, 2017, 4, 1458-1464.	3.0	2
34	Thermal conductivity and degradation behavior of HDPE/graphene nanocomposites. Journal of Thermal Analysis and Calorimetry, 2017, 129, 1715-1726.	2.0	62
35	Effect of Silicon Nitride/Oxide on the Structure and the Thermal Conductivity of CoSi Nanocomposites. Journal of Nanoscience and Nanotechnology, 2017, 17, 1555-1563.	0.9	0
36	Simulation Based Design of a Thermoelectric Energy Harvesting Device for Aircraft Applications. , 2017, , .		3

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37	Experimental and modeling evidence for the reduction of thermal conductivity in Mg ₂ Si by fine tuning the nano & micro-structural features. <i>Materials Today: Proceedings</i> , 2017, 4, 12374-12382.	0.9	4
38	On the potential use of quarry waste material for CO ₂ sequestration. <i>Journal of CO₂ Utilization</i> , 2016, 16, 361-370.	3.3	15
39	Inhomogeneities and Effective Mass in Doped Mg ₂ Si. <i>Journal of Electronic Materials</i> , 2016, 45, 1900-1906.	1.0	6
40	Materials Science: Trends, Material Properties and Educational Perspectives. , 2016, , 75-100.		1
41	Enhancing the rate of ex situ mineral carbonation in dunites via ball milling. <i>Advanced Powder Technology</i> , 2016, 27, 360-371.	2.0	30
42	Design, assembly and characterization of silicide-based thermoelectric modules. <i>Energy Conversion and Management</i> , 2016, 110, 13-21.	4.4	62
43	Syntheses, crystal Structures and electronic Structures of new metal chalcogenides Bi ₂ CuSe ₃ I and Bi ₆ Cu ₃ S ₁₀ I. <i>Journal of Solid State Chemistry</i> , 2016, 234, 1-8.	1.4	8
44	A method to enhance the CO ₂ storage capacity of pyroxenitic rocks. , 2015, 5, 577-591.		12
45	Carbon dioxide storage in olivine basalts: Effect of ball milling process. <i>Powder Technology</i> , 2015, 273, 220-229.	2.1	41
46	Thermoelectric properties of Bi _{0.5} Sb _{1.5} Te ₃ thin films grown by pulsed laser deposition. <i>Applied Surface Science</i> , 2015, 336, 138-142.	3.1	15
47	Long-time Stability of Mg ₂ (Si-Sn-Ge) - Based Thermoelectrics Under Large Temperature Gradient Conditions. <i>Materials Today: Proceedings</i> , 2015, 2, 596-601.	0.9	4
48	Nanostructure and doping stimulated phase separation in high-ZT Mg ₂ Si _{0.55} Sn _{0.4} Ge _{0.05} compounds. <i>Acta Materialia</i> , 2015, 83, 285-293.	3.8	43
49	Thermoelectric properties of Mg ₂ Si coatings deposited by pack cementation assisted process on heavily doped Si substrates. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2014, 211, 1308-1314.	0.8	8
50	Spark ignitable Ni-Al ball-milled powders for bonding applications. <i>Surface and Coatings Technology</i> , 2014, 260, 396-400.	2.2	17
51	Understanding the mechanical and thermal property reinforcement of crosslinked polyethylene by nanodiamonds and carbon nanotubes. <i>RSC Advances</i> , 2014, 4, 45522-45534.	1.7	14
52	Thermoelectric properties of highly efficient Bi-doped Mg ₂ Si _{1-x} Sn _x Ge _y materials. <i>Acta Materialia</i> , 2014, 77, 43-53.	3.8	74
53	Macro and Micro-Scale Features of Thermoelectric PbTe (Br, Na) Systems: Micro-FTIR Spectroscopy, Micro-Seebeck Measurements, and SEM/EDX Observations. <i>Journal of Electronic Materials</i> , 2014, 43, 3785-3791.	1.0	2
54	Structural Characterization and Thermoelectric Properties of Hot-Pressed CoSi Nanocomposites. <i>Journal of Electronic Materials</i> , 2014, 43, 3824-3830.	1.0	2

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55	Electronic Structure and Thermoelectric Properties of Pseudoquaternary $\text{Mg}_2\text{Si}_{1-x-y}\text{Sn}_x\text{Ge}_y$ -Based Materials. Journal of Electronic Materials, 2014, 43, 3831-3837.	1.0	12
56	The Effect of Ge on $\text{Mg}_2\text{Si}_{0.6-x}\text{Sn}_{0.4}\text{Ge}_x$ Materials. Journal of Electronic Materials, 2014, 43, 3844-3851.	1.0	14
57	Carbon nanotube-reinforced crosslinked polyethylene pipes for geothermal applications: From synthesis to decomposition using analytical pyrolysis-GC/MS and thermogravimetric analysis. Polymer Degradation and Stability, 2014, 100, 42-53.	2.7	24
58	Effect of Bi-doping and Mg-excess on the thermoelectric properties of Mg_2Si materials. Journal of Physics and Chemistry of Solids, 2014, 75, 984-991.	1.9	50
59	Structural Modifications Induced by Sodium Doping in PbTe Thermoelectric Materials Prepared by Low Temperature Synthesis. Journal of Surfaces and Interfaces of Materials, 2014, 2, 238-243.	0.5	0
60	Thermoelectric Properties of Hot-Pressed $\text{K}_2\text{Bi}_8\text{Se}_{13-x}\text{S}_x$ Materials. Journal of Electronic Materials, 2013, 42, 1604-1611.	1.0	6
61	Design of Ball-Milling Experiments on Bi_2Te_3 Thermoelectric Material. Journal of Electronic Materials, 2013, 42, 1652-1660.	1.0	26
62	Solid-State Synthesis and Thermoelectric Properties of Sb-Doped Mg_2Si Materials. Journal of Electronic Materials, 2013, 42, 1827-1834.	1.0	56
63	Low-Temperature Synthesis and Thermoelectric Properties of n-Type PbTe . Journal of Electronic Materials, 2013, 42, 1911-1917.	1.0	14
64	High thermoelectric figure of merit of $\text{Mg}_2\text{Si}_{0.55}\text{Sn}_{0.4}\text{Ge}_{0.05}$ materials doped with Bi and Sb. Scripta Materialia, 2013, 69, 606-609.	2.6	136
65	Solid-state synthesis of Mg_2Si via short-duration ball-milling and low-temperature annealing. Journal of Solid State Chemistry, 2013, 197, 172-180.	1.4	30
66	Exothermic reaction characteristics of continuously ball-milled Al/Ni powder compacts. Vacuum, 2013, 96, 73-78.	1.6	26
67	Carrier Mapping in Thermoelectric Materials. Materials Research Society Symposia Proceedings, 2013, 1543, 171-176.	0.1	3
68	Low temperature synthesis and characterization of PbTe -based materials. , 2012, , .		1
69	Sintering process in ball-milled $\text{K}_2\text{Bi}_8\text{Se}_{13}$ nano-composites. , 2012, , .		0
70	Influence of processing conditions on the thermoelectric properties of $\text{La}_{1-x}\text{Sr}_x\text{CoO}_3$ ($x=0, 0.05$). , 2012, , .		6
71	Effect of sintering in ball-milled $\text{K}_2\text{Bi}_8\text{Se}_{13}$ thermoelectric nano-composites. Journal of Solid State Chemistry, 2012, 193, 137-141.	1.4	0
72	Thermal, electron transport and far infrared properties of PbTe single crystals doped with Br. , 2012, , .		2

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73	Fabrication of nanocrystalline Mg ₂ Si via ball milling process: Structural studies. Powder Technology, 2012, 217, 523-532.	2.1	47
74	Structural features of ball-milled nanostructured K ₂ Bi ₈ Se ₁₃ thermoelectric material. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2011, 176, 1568-1573.	1.7	2
75	Seebeck and thermal conductivity analysis in amorphous/crystalline \hat{I}^2 -K ₂ Bi ₈ Se ₁₃ nanocomposite materials. Journal of Applied Physics, 2011, 110, .	1.1	15
76	Synthesis and Thermoelectric Properties of low-x Bi ₂ Se ₃ ^x S ₃ Series. , 2010, , .		1
77	On the Use of Thermoelectric (TE) Applications Based on Commercial Modules: The Case of TE Generator and TE Cooler. , 2010, , .		2
78	Thermoelectric Materials and Applications on the Recovery of Waste Heat Energy. AIP Conference Proceedings, 2010, , .	0.3	3
79	Efficiency Study of a Commercial Thermoelectric Power Generator (TEG) Under Thermal Cycling. Journal of Electronic Materials, 2010, 39, 2112-2116.	1.0	89
80	Thermoelectric Properties of Nanocrystalline PbTe Synthesized by Mechanical Alloying. Journal of Electronic Materials, 2010, 39, 1665-1668.	1.0	15
81	Structural Characterization of Nano-Crystalline Mg ₂ Si Prepared by Ball Milling. Advances in Science and Technology, 2010, 74, 48-53.	0.2	0
82	Synthesis of reactive Al/Ni structures by ball milling. Intermetallics, 2010, 18, 2219-2223.	1.8	34
83	The influence of structure on thermal behavior of reactive Al-Ni powder mixtures formed by ball milling. Journal of Alloys and Compounds, 2010, 505, 467-471.	2.8	22
84	Role of K/Bi disorder in the electronic structure of $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \hat{I}^2 \langle \text{mml:mi} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mtext} \rangle \text{-K} \langle \text{mml:mtext} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle$ Physical Review B, 2009, 80, .	1.1	12
85	Long-Term performance of a commercial Thermoelectric Power Generator. Materials Research Society Symposia Proceedings, 2009, 1166, 14.	0.1	0
86	IR Reflectivity Studies of Mechanically Alloyed PbTe Nanocrystals. Materials Research Society Symposia Proceedings, 2009, 1166, 12.	0.1	3
87	Synthetic conditions and their doping effect on \hat{I}^2 -K ₂ Bi ₈ Se ₁₃ . Journal of Alloys and Compounds, 2009, 474, 351-357.	2.8	7
88	Students' use of the energy model to account for changes in physical systems. Journal of Research in Science Teaching, 2008, 45, 444-469.	2.0	30
89	Mechanical Alloying Synthesis of K ₂ Bi ₈ Se ₁₃ type Solid Solutions. Materials Research Society Symposia Proceedings, 2007, 1044, 1.	0.1	0
90	Local structure and influence of bonding on the phase-change behavior of the chalcogenide compounds K _{1-x} Rb _x Sb ₅ S ₈ . Journal of Solid State Chemistry, 2007, 180, 420-431.	1.4	19

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91	Thermoelectric Properties of Pressed Pellets and Pressureless Sintering in the $K_2Bi_8Se_{13-x}S_x$ System. , 2006, , .		0
92	FTIR Reflectivity spectra of Thermoelectric $K_2Sb_8Se_{13}$ crystals. , 2006, , .		0
93	n-to-p Transition on $K_2Bi_8-xSb_xSe_{13}$ Series. , 2006, , .		0
94	Structure inhomogeneities, shallow defects, and charge transport in the series of thermoelectric materials $K_2Bi_8\hat{\alpha}^xSb_xSe_{13}$. Journal of Applied Physics, 2006, 100, 123704.	1.1	17
95	On the optical properties of thermoelectric alkali metal chalcogenide compounds. Materials Research Society Symposia Proceedings, 2005, 886, 1.	0.1	2
96	Thermoelectric Properties of $K_2Bi_8Se_{13}\hat{\alpha}^xS_x$ Solid Solutions. Materials Research Society Symposia Proceedings, 2005, 886, 1.	0.1	1
97	Crystal/Glass Phase Change in KSb_5S_8 Studied Through Thermal Analysis Techniques.. ChemInform, 2004, 35, no.	0.1	0
98	Crystal/Glass Phase Change in KSb_5S_8 Studied through Thermal Analysis Techniques. Chemistry of Materials, 2004, 16, 1932-1937.	3.2	31
99	Lattice thermal conductivity of $K_2(Bi_1\hat{\alpha}^zSbz)_8Se_{13}$ solid solutions. Journal of Applied Physics, 2004, 95, 4140-4146.	1.1	14
100	Surface effects in layered semiconductors Bi_2Se_3 and Bi_2Te_3 . Physical Review B, 2004, 69, .	1.1	103
101	Thermoelectric Properties and Site-Selective Rb+/K+ Distribution in the $K_2-xRb_xBi_8Se_{13}$ Series.. ChemInform, 2003, 34, no.	0.1	0
102	Synthesis, Crystallographic Studies, and Characterization of $K_2Bi_8Se_{13}\hat{\alpha}^xS_x$ Solid Solutions. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2003, 629, 2222-2228.	0.6	14
103	Thermoelectric Properties and Site-Selective Rb+/K+ Distribution in the $K_2-xRb_xBi_8Se_{13}$ Series. Chemistry of Materials, 2003, 15, 3035-3040.	3.2	25
104	KSb_5S_8 : A Wide Bandgap Phase-Change Material for Ultra High Density Rewritable Information Storage. Advanced Materials, 2003, 15, 1428-1431.	11.1	62
105	Synthesis, Crystal Structure and Thermoelectric Properties of $\hat{I}^2-K_2Bi_8Se_{13}$ Solid Solutions. Materials Research Society Symposia Proceedings, 2003, 793, 395.	0.1	2
106	Highly anisotropic crystal growth and thermoelectric properties of $K_2Bi_8\hat{\alpha}^xSb_xSe_{13}$ solid solutions: Band gap anomaly at low x. Journal of Applied Physics, 2002, 92, 965-975.	1.1	46
107	Scanning tunneling microscopy of defect states in the semiconductor Bi_2Se_3 . Physical Review B, 2002, 66, .	1.1	90
108	$CsMBi_3Te_6$ and $CsM_2Bi_3Te_7$ (M = Pb, Sn): \hat{A} New Thermoelectric Compounds with Low-Dimensional Structures. Journal of the American Chemical Society, 2002, 124, 2410-2411.	6.6	46

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109	Bi/Sb distribution and its consequences in solid solution members of the thermoelectric materials $K_2Bi_8\hat{\sim}xSbxSe_{13}$. Journal of Alloys and Compounds, 2002, 338, 36-42.	2.8	29
110	$A_2Bi_8Se_{13}$ (A = Rb, Cs), $CsBi_3.67Se_6$, and $BaBi_2Se_4$: $\hat{\sim}\%$ New Ternary Semiconducting Bismuth Selenides. Chemistry of Materials, 2001, 13, 622-633.	3.2	45
111	Thermoelectric Properties of $K_2Bi_8\hat{\sim}xSbxSe_{13}$ Solid Solutions and Se Doping. Materials Research Society Symposia Proceedings, 2001, 691, 1.	0.1	1
112	Initial Assessment of the Thermoelectric Properties for the Mixed System $K_2\hat{\sim}xRbxBi_8Se_{13}$. Materials Research Society Symposia Proceedings, 2001, 691, 1.	0.1	0
113	Doping and Alloying Trends in New Thermoelectric Materials. Materials Research Society Symposia Proceedings, 2001, 691, 1.	0.1	0
114	Thermoelectric Module For Low Temperature Applications. Materials Research Society Symposia Proceedings, 2001, 691, 1.	0.1	2
115	Crystal Growth of Ternary and Quaternary Alkali Metal Bismuth Chalcogenides Using Bridgman Technique. Materials Research Society Symposia Proceedings, 2000, 626, 881.	0.1	16
116	Doping Studies of n-Type $CsBi_4Te_6$ Thermoelectric Materials. Materials Research Society Symposia Proceedings, 2000, 626, 751.	0.1	0
117	Optimization of thermoelectric properties of Bi_2Se_3 using insertion techniques. Ionics, 1998, 4, 88-92.	1.2	0
118	Modification of Thermoelectric Properties Using Insertion Techniques. Materials Research Society Symposia Proceedings, 1998, 545, 149.	0.1	2
119	Changes in the electronic properties of Bi_2X_3 (X: Se, Te) single crystals due to intercalation. Ionics, 1997, 3, 305-309.	1.2	12