Gerda Rogl

List of Publications by Year
in descending order

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81 papers	3,569 citations	136950 32 h-index	133252 59 g-index
81 all docs	81 docs citations	81 times ranked	2392 citing authors

#	Article	IF	Citations
1	High pressure torsion, a largeâ€scale manufacturing tool for high ZT skutterudite thermoelectrics. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2022, 648, .	1.2	5
2	Understanding thermal and electronic transport in high-performance thermoelectric skutterudites. Intermetallics, 2022, 146, 107567.	3.9	5
3	HPT production of large bulk skutterudites. Journal of Alloys and Compounds, 2021, 854, 156678.	5.5	12
4	Influence of shear strain on HPT-processed n-type skutterudites yielding ZT=2.1. Journal of Alloys and Compounds, 2021, 855, 157409.	5.5	17
5	Thermoelectric properties enhancement of Ba0Â·2Co4Sb12 through dispersion of GaSb inclusions. Physica B: Condensed Matter, 2021, 606, 412440.	2.7	2
6	La₂Pd₃Ge₅ and Nd₂Pd₃Ge₅ Compounds: Chemical Bonding and Physical Properties. Inorganic Chemistry, 2021, 60, 3345-3354.	4.0	11
7	Properties of HPT-Processed Large Bulks of p-Type Skutterudite DD_{0.7}Fe₃CoSb₁₂ with ZT > 1.3. ACS Applied Energy Materials, 2021, 4, 4831-4844.	5.1	8
8	On the constitution and thermodynamic modeling of the phase diagrams Nb-Mn and Ta-Mn. Journal of Alloys and Compounds, 2021, 865, 158715.	5.5	4
9	Study of thermal stability of n-type skutterudites Sr0.07Ba0.07Yb0.07Co4Sb12 by differential thermal analysis and Knudsen effusion method. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2021, 73, 102258.	1.6	2
10	Study of thermal stability of half-Heusler alloys TiFe1.33Sb and TixNb1-xFeSb (x = 0, 0.15) by differential thermal analysis and Knudsen effusion method. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2021, 74, 102292.	1.6	4
11	InSb nanoparticles dispersion in Yb-filled Co4Sb12 improves the thermoelectric performance. Journal of Alloys and Compounds, 2021, 880, 160532.	5.5	7
12	Anisotropy of Microstructure and Its Influence on Thermoelectricity: The Case of Cu₂Teâ€“Sb₂Te₃ Eutectic. ACS Applied Energy Materials, 2021, 4, 11867-11877.	5.1	2
13	Physical properties of {Ti,Zr,Hf}2Ni2Sn compounds. Dalton Transactions, 2021, 51, 361-374.	3.3	0
14	Determination of structural disorder in Heusler-type phases. Computational Materials Science, 2020, 172, 109307.	3.0	12
15	Effect of Fe alloying on the thermoelectric performance of Cu2Te. Journal of Alloys and Compounds, 2020, 817, 152729.	5.5	24
16	Half-Heusler alloys: Enhancement of ZT after severe plastic deformation (ultra-low thermal) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 142 Td	7.9	44
17	Enhanced Thermoelectric Performance in the Ba_{0.3}Co₄Sb₁₂/InSb Nanocomposite Originating from the Minimum Possible Lattice Thermal Conductivity. ACS Applied Materials & Interfaces, 2020, 12, 48729-48740.	8.0	13
18	How Severe Plastic Deformation Changes the Mechanical Properties of Thermoelectric Skutterudites and Half Heusler Alloys. Frontiers in Materials, 2020, 7, .	2.4	8

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19	Simultaneous optimization of power factor and thermal conductivity via Te and Se double substitution in Cu12Sb4S13 tetrahedrite. Scripta Materialia, 2020, 188, 151-156.	5.2	6
20	Resistivity and Thermal Expansion (4.2â€“820 K) of Skutterudites after Severe Plastic Deformation via HPT. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2020, 646, 1267-1272.	1.2	5
21	Preferential phonon scattering and low energy carrier filtering by interfaces of in situ formed InSb nanoprecipitates and GaSb nanoinclusions for enhanced thermoelectric performance of In_{0.2}Co₄Sb₁₂. Dalton Transactions, 2020, 49, 15883-15894.	3.3	8
22	Thermoelectric properties of Al substituted tetrahedrite. Journal of Applied Physics, 2020, 127, .	2.5	9
23	Interaction of Skutterudites with Contact Materials: A Metallurgical Analysis. Journal of Phase Equilibria and Diffusion, 2020, 41, 365-377.	1.4	2
24	Study of thermal stability of p-type skutterudites DD_{0.7}Fe₃CoSb₁₂ by Knudsen effusion mass spectrometry. RSC Advances, 2019, 9, 21451-21459.	3.6	5
25	High-ZT half-Heusler thermoelectrics, Ti0.5Zr0.5NiSn and Ti0.5Zr0.5NiSn0.98Sb0.02: Physical properties at low temperatures. Acta Materialia, 2019, 166, 466-483.	7.9	31
26	The Effect of Severe Plastic Deformation on Thermoelectric Performance of Skutterudites, Half-Heuslers and Bi-Tellurides. Materials Transactions, 2019, 60, 2071-2085.	1.2	21
27	Sustainable and simple processing technique for n-type skutterudites with high ZT and their analysis. Acta Materialia, 2019, 173, 9-19.	7.9	22
28	Study of thermal stability of CoSb3 skutterudite by Knudsen effusion mass spectrometry. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2019, 65, 1-7.	1.6	18
29	Local mechanical properties of advanced skutterudites processed by various routes. IOP Conference Series: Materials Science and Engineering, 2019, 613, 012036.	0.6	1
30	Origin of Band Modulation in GeTe-Rich Geâ€“Sbâ€“Te Thin Film. ACS Applied Electronic Materials, 2019, 1, 2619-2625.	4.3	3
31	Skutterudites: Progress and Challenges. , 2019, , 177-201.		6
32	Boron-phil and boron-phob structure units in novel borides Ni3Zn2B and Ni2ZnB: experiment and first principles calculations. Dalton Transactions, 2018, 47, 3303-3320.	3.3	8
33	Nanostructuring as a tool to adjust thermal expansion in high ZT skutterudites. Acta Materialia, 2018, 145, 359-368.	7.9	35
34	Thermoelectric properties of Co4Sb12with Bi2Te3nanoinclusions. Journal of Physics Condensed Matter, 2018, 30, 095701.	1.8	15
35	The half Heusler system Ti_{1+x}Fe_{1.33â^'x}Sbâ€“TiCoSb with Sb/Sn substitution: phase relations, crystal structures and thermoelectric properties. Dalton Transactions, 2018, 47, 879-897.	3.3	36
36	Microstructure and Local Mechanical Properties of Skutterudites with Addition of Metallic Borides. Key Engineering Materials, 2018, 784, 9-14.	0.4	0

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37	Structure and properties of a novel boride: ThNi₁₂B₆. Dalton Transactions, 2018, 47, 12933-12943.	3.3	1
38	Direct SPD-processing to achieve high-ZT skutterudites. Acta Materialia, 2018, 159, 352-363.	7.9	27
39	Skutterudites, a most promising group of thermoelectric materials. Current Opinion in Green and Sustainable Chemistry, 2017, 4, 50-57.	5.9	150
40	On the Half-Heusler compounds Nb1-x{Ti,Zr,Hf}xFeSb: Phase relations, thermoelectric properties at low and high temperature, and mechanical properties. Acta Materialia, 2017, 135, 263-276.	7.9	61
41	(V,Nb)-doped half Heusler alloys based on {Ti,Zr,Hf}NiSn with high ZT. Acta Materialia, 2017, 131, 336-348.	7.9	119
42	Mechanical properties of non-centrosymmetric CePt3Si and CePt3B. Journal of Physics Condensed Matter, 2017, 29, 185402.	1.8	5
43	Attempts to further enhance ZT in skutterudites via nano-composites. Journal of Alloys and Compounds, 2017, 695, 682-696.	5.5	31
44	How nanoparticles can change the figure of merit, ZT, and mechanical properties of skutterudites. Materials Today Physics, 2017, 3, 48-69.	6.0	80
45	Ba-filled Niâ€“Sbâ€“Sn based skutterudites with anomalously high lattice thermal conductivity. Dalton Transactions, 2016, 45, 11071-11100.	3.3	13
46	Thermoelectric properties of In and I doped PbTe. Journal of Applied Physics, 2016, 120, .	2.5	37
47	Thermoelectric high ZT half-Heusler alloys Ti1âˆ’xâˆ’yZrxHfyNiSn (0Ââ‰ÂxÂâ‰Â1; 0Ââ‰ÂyÂâ‰Â1). Acta Materialia, 2016, 104, 210-222.	7.9	166
48	Mechanical properties of half-Heusler alloys. Acta Materialia, 2016, 107, 178-195.	7.9	235
49	From Occupied Voids to Nanoprecipitates: Synthesis of Skutterudite Nanocomposites in situ. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2015, 641, 1495-1502.	1.2	4
50	Concepts for medium-high to high temperature thermoelectric heat-to-electricity conversion: a review of selected materials and basic considerations of module design. Translational Materials Research, 2015, 2, 025001.	1.2	93
51	Changes in microstructure and physical properties of skutterudites after severe plastic deformation. Physical Chemistry Chemical Physics, 2015, 17, 3715-3722.	2.8	29
52	In-doped multifilled n-type skutterudites with ZT= 1.8. Acta Materialia, 2015, 95, 201-211.	7.9	146
53	New bulk p-type skutterudites DD0.7Fe2.7Co1.3Sb12âˆ’X (X = Ge, Sn) reaching ZT > 1.3. Acta Materialia, 2015, 91, 227-238.	7.9	98
54	Thermoelectric properties of Co substituted synthetic tetrahedrite. Acta Materialia, 2015, 100, 266-274.	7.9	96

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55	Thermoelectric properties of a Mn substituted synthetic tetrahedrite. Physical Chemistry Chemical Physics, 2015, 17, 1716-1727.	2.8	117
56	Nanostructuring of p- and n-type skutterudites reaching figures of merit of approximately 1.3 and 1.6, respectively. Acta Materialia, 2014, 76, 434-448.	7.9	102
57	n-Type skutterudites (R,Ba,Yb)yCo4Sb12 (R=Sr, La, Mm, DD, SrMm, SrDD) approaching ZTâ‰ˆ2.0. Acta Materialia, 2014, 63, 30-43.	7.9	254
58	Effect of High-Pressure Torsion on Texture, Microstructure, and Raman Spectroscopy: Case Study of Fe- and Te-Substituted CoSb3. Journal of Electronic Materials, 2014, 43, 3817-3823.	2.2	13
59	New p- and n-type skutterudites with ZT>1 and nearly identical thermal expansion and mechanical properties. Acta Materialia, 2013, 61, 4066-4079.	7.9	28
60	High-Pressure Torsion to Improve Thermoelectric Efficiency of Clathrates?. Journal of Electronic Materials, 2013, 42, 1330-1334.	2.2	15
61	Thermoelectric properties of Fe0.2Co3.8Sb12â^'xTex skutterudites. Acta Materialia, 2013, 61, 6698-6711.	7.9	47
62	Dependence of thermoelectric behaviour on severe plastic deformation parameters: A case study on p-type skutterudite DD0.60Fe3CoSb12. Acta Materialia, 2013, 61, 6778-6789.	7.9	59
63	Thermoelectric properties of Bi-added Co₄Sb₁₂skutterudites. Journal of Physics Condensed Matter, 2013, 25, 105701.	1.8	13
64	Severe Plastic Deformation, A Tool to Enhance Thermoelectric Performance. Springer Series in Materials Science, 2013, , 193-254.	0.6	14
65	Spinodal decomposition in (CaxBa1â^'x)yFe4Sb12. Acta Materialia, 2012, 60, 4487-4495.	7.9	7
66	Thermoelectric properties of p-type didymium (DD) based skutterudites DDy(Fe1â^'xNix)4Sb12 (0.13â©½xâ©½0.25.) Tj ETQq0 0 0 rg	5.5	52
67	Effect of HPT processing on the structure, thermoelectric and mechanical properties of Sr0.07Ba0.07Yb0.07Co4Sb12. Journal of Alloys and Compounds, 2012, 537, 183-189.	5.5	71
68	High-pressure torsion, a new processing route for thermoelectrics of high ZTs by means of severe plastic deformation. Acta Materialia, 2012, 60, 2146-2157.	7.9	117
69	A new generation of p-type didymium skutterudites with high ZT. Intermetallics, 2011, 19, 546-555.	3.9	115
70	Compositional dependence of the thermoelectric properties of (Sr_xBa_xYb_{1 â^') Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 142 Td (2x})<sub>y Condensed Matter, 2011, 23, 275601.	1.8	32
71	Dependence of the Elastic Moduli of Skutterudites on Density and Temperature. Materials Research Society Symposia Proceedings, 2011, 1325, 29.	0.1	5
72	Mechanical Properties of Skutterudites. Science of Advanced Materials, 2011, 3, 517-538.	0.7	102

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73	Mechanical properties of filled antimonide skutterudites. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2010, 170, 26-31.	3.5	92
74	Thermal expansion of skutterudites. Journal of Applied Physics, 2010, 107, .	2.5	74
75	Thermal expansion of thermoelectric type-I-clathrates. Journal of Applied Physics, 2010, 108, .	2.5	43
76	Unconventional superconducting phase in the weakly correlated noncentrosymmetric<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Mo</mml:mtext></mml:mrow><mml:mn>3</mml:mn></mml:msu Physical Review B, 2010, 82, .	3.2	121
77	Thermoelectric properties of novel skutterudites with didymium: DDy(Fe1â^'xCox)4Sb12 and DDy(Fe1â^'xNix)4Sb12. Intermetallics, 2010, 18, 57-64.	3.9	119
78	Structural and physical properties of n-type skutterudite Ca0.07Ba0.23Co3.95Ni0.05Sb12. Intermetallics, 2010, 18, 394-398.	3.9	36
79	Multifilled nanocrystalline p-type didymium â€“ Skutterudites with ZT>1.2. Intermetallics, 2010, 18, 2435-2444.	3.9	93
80	Impact of Ball Milling and High-Pressure Torsion on the Microstructure and Thermoelectric Properties of p- and n-Type Sb-Based Skutterudites. Materials Science Forum, 0, 667-669, 1089-1094.	0.3	5
81	Enhanced Thermoelectric Figure of Merit in P-Type DD_y(Fe_{1-X}Co_x)₄Sb<sub>12</sub Solid State Phenomena, 0, 170, 240-243.	0.3	21