

# Gabi Schierning

## List of Publications by Year in Descending Order

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

79  
papers

2,520  
citations

27  
h-index

49  
g-index

87  
ext. papers

2,984  
ext. citations

6.5  
avg, IF

5.32  
L-index

#	Paper	IF	Citations
79	Quasi-1D electronic transport and isotropic phonon transport in the Zintl $\text{Ca}_5\text{In}_2\text{Sb}_6$ . <i>Materials Today Physics</i> , <b>2022</b> , 22, 100597	8	0
78	Mobility-enhanced thermoelectric performance in textured nanograin $\text{Bi}_2\text{Se}_3$ , effect on scattering and surface-like transport. <i>Materials Today Physics</i> , <b>2022</b> , 24, 100669	8	1
77	The role of electrons during the martensitic phase transformation in NiTi-based shape memory alloys. <i>Materials Today Physics</i> , <b>2022</b> , 100671	8	
76	Estimating thin-film thermal conductivity by optical pump thermoreflectance imaging and finite element analysis. <i>Journal of Applied Physics</i> , <b>2022</b> , 131, 185111	2.5	
75	Europium Clustering and Glassy Magnetic Behavior in Inorganic Clathrate-VIII $\text{Eu}_8\text{Ga}_{16}\text{Ge}_{30}$ . <i>Materials</i> , <b>2022</b> , 15, 3439	3.5	0
74	Transparent Power-Generating Windows Based on Solar-Thermal-Electric Conversion. <i>Advanced Energy Materials</i> , <b>2021</b> , 11, 2101213	21.8	3
73	Heterostructured Bismuth Telluride Selenide Nanosheets for Enhanced Thermoelectric Performance. <i>Small Science</i> , <b>2021</b> , 1, 2000021		11
72	Influence of Nanoparticle Processing on the Thermoelectric Properties of (Bi Sb ) Te Ternary Alloys. <i>ChemistryOpen</i> , <b>2021</b> , 10, 189-198	2.3	2
71	Towards tellurium-free thermoelectric modules for power generation from low-grade heat. <i>Nature Communications</i> , <b>2021</b> , 12, 1121	17.4	36
70	Reduced Lattice Thermal Conductivity for Half-Heusler $\text{ZrNiSn}$ through Cryogenic Mechanical Alloying. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 38561-38568	9.5	11
69	High-Performance n-Type Ge-Free Silicon Thermoelectric Material from Silicon Waste. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 47912-47920	9.5	2
68	Interface-Dominated Topological Transport in Nanograined Bulk Bi Te. <i>Small</i> , <b>2021</b> , 17, e2103281	11	2
67	Waste Recycling in Thermoelectric Materials. <i>Advanced Energy Materials</i> , <b>2020</b> , 10, 1904159	21.8	37
66	Thermoelectric Characterization Platform for Electrochemically Deposited Materials. <i>Advanced Electronic Materials</i> , <b>2020</b> , 6, 1901288	6.4	3
65	Entropy of Conduction Electrons from Transport Experiments. <i>Entropy</i> , <b>2020</b> , 22,	2.8	3
64	Ionic Liquid-Based Low-Temperature Synthesis of Phase-Pure Tetradymite-Type Materials and Their Thermoelectric Properties. <i>Inorganic Chemistry</i> , <b>2020</b> , 59, 3428-3436	5.1	9
63	Doping High-Mobility Donor/Acceptor Copolymer Semiconductors with an Organic Salt for High-Performance Thermoelectric Materials. <i>Advanced Electronic Materials</i> , <b>2020</b> , 6, 1900945	6.4	22

62	Signatures of a Charge Density Wave Phase and the Chiral Anomaly in the Fermionic Material Cobalt Monosilicide CoSi. <i>Advanced Electronic Materials</i> , <b>2020</b> , 6, 1900857	6.4	3
61	Tuning of the electronic and phononic properties of NbFeSb half-Heusler compound by Sn/Hf co-doping. <i>Acta Materialia</i> , <b>2020</b> , 196, 669-676	8.4	8
60	Unveiling the phonon scattering mechanisms in half-Heusler thermoelectric compounds. <i>Energy and Environmental Science</i> , <b>2020</b> , 13, 5165-5176	35.4	16
59	Synergetic Enhancement of Thermoelectric Performance by Selective Charge Anderson Localization-Delocalization Transition in n-Type Bi-Doped PbTe/AgTe Nanocomposite. <i>ACS Nano</i> , <b>2019</b> , 13, 3806-3815	16.7	48
58	Electronic entropy change in Ni-doped FeRh. <i>Materials Today Physics</i> , <b>2019</b> , 9, 100129	8	5
57	Thermoelectric properties of silicides with topologically non-trivial electronic structure: Co <sub>1-x</sub> M <sub>x</sub> Si (M=Fe, Ni). <i>Materials Today: Proceedings</i> , <b>2019</b> , 8, 540-545	1.4	4
56	Thermoelectric properties of silicon and recycled silicon sawing waste. <i>Journal of Materiomics</i> , <b>2019</b> , 5, 15-33	6.7	15
55	Design Guidelines for Micro-Thermoelectric Devices by Finite Element Analysis. <i>Advanced Sustainable Systems</i> , <b>2019</b> , 3, 1800093	5.9	3
54	Quantum materials for thermoelectricity. <i>MRS Bulletin</i> , <b>2018</b> , 43, 187-192	3.2	32
53	Thermoelectric Devices: A Review of Devices, Architectures, and Contact Optimization. <i>Advanced Materials Technologies</i> , <b>2018</b> , 3, 1700256	6.8	151
52	Structural and thermoelectrical characterization of epitaxial Sb <sub>2</sub> Te <sub>3</sub> high quality thin films grown by thermal evaporation. <i>Semiconductor Science and Technology</i> , <b>2018</b> , 33, 105002	1.8	11
51	Polyethenetetrathiolate or polytetrathiooxalate? Improved synthesis, a comparative analysis of a prominent thermoelectric polymer and implications to the charge transport mechanism. <i>Polymer Chemistry</i> , <b>2018</b> , 9, 4543-4555	4.9	12
50	Efficient p-n junction-based thermoelectric generator that can operate at extreme temperature conditions. <i>Journal Physics D: Applied Physics</i> , <b>2018</b> , 51, 014005	3	14
49	Integrated microthermoelectric coolers with rapid response time and high device reliability. <i>Nature Electronics</i> , <b>2018</b> , 1, 555-561	28.4	41
48	Improving the zT value of thermoelectrics by nanostructuring: tuning the nanoparticle morphology of SbTe by using ionic liquids. <i>Dalton Transactions</i> , <b>2017</b> , 46, 656-668	4.3	29
47	Fabrication and Modeling of Integrated Micro-Thermoelectric Cooler by Template-Assisted Electrochemical Deposition. <i>ECS Journal of Solid State Science and Technology</i> , <b>2017</b> , 6, N3022-N3028	2	12
46	Microstructure and thermoelectric properties of Si-WSi <sub>2</sub> nanocomposites. <i>Acta Materialia</i> , <b>2017</b> , 125, 321-326	8.4	16
45	Improved thermoelectric performance of n-type half-Heusler MCo <sub>1-x</sub> Ni <sub>x</sub> Sb (M = Hf, Zr). <i>Materials Today Physics</i> , <b>2017</b> , 1, 24-30	8	110

44	Lattice dynamics and thermoelectric properties of nanocrystalline silicon/germanium alloys. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2016</b> , 213, 515-523	1.6	8
43	Silicon-based nanocomposites for thermoelectric application. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2016</b> , 213, 497-514	1.6	18
42	Record figure of merit values of highly stoichiometric Sb <sub>2</sub> Te <sub>3</sub> porous bulk synthesized from tailor-made molecular precursors in ionic liquids. <i>Journal of Materials Chemistry C</i> , <b>2015</b> , 3, 10375-10380	7.1	27
41	Thermoelectrics from silicon nanoparticles: the influence of native oxide. <i>European Physical Journal B</i> , <b>2015</b> , 88, 1	1.2	8
40	Thermoelectric transport properties of boron-doped nanocrystalline diamond foils. <i>Carbon</i> , <b>2015</b> , 81, 650-662	10.4	14
39	Thermoelectric properties of pulsed current sintered nanocrystalline Al-doped ZnO by chemical vapour synthesis. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 189-197	13	38
38	Microwave plasma synthesis of Si/Ge and Si/WSi <sub>2</sub> nanoparticles for thermoelectric applications. <i>Journal Physics D: Applied Physics</i> , <b>2015</b> , 48, 314010	3	8
37	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> , <b>2015</b> , 2, 025001		77
36	Fabrication of High-Temperature-Stable Thermoelectric Generator Modules Based on Nanocrystalline Silicon. <i>Journal of Electronic Materials</i> , <b>2014</b> , 43, 1389-1396	1.9	13
35	Silicon nanostructures for thermoelectric devices: A review of the current state of the art. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2014</b> , 211, 1235-1249	1.6	71
34	Nanocrystalline silicon: lattice dynamics and enhanced thermoelectric properties. <i>Physical Chemistry Chemical Physics</i> , <b>2014</b> , 16, 25701-9	3.6	45
33	High Temperature Thermoelectric Device Concept Using Large Area PN Junctions. <i>Journal of Electronic Materials</i> , <b>2014</b> , 43, 2376-2383	1.9	29
32	Spatially resolved determination of thermal conductivity by Raman spectroscopy. <i>Semiconductor Science and Technology</i> , <b>2014</b> , 29, 124005	1.8	26
31	Field-Assisted Sintering Technology/Spark Plasma Sintering: Mechanisms, Materials, and Technology Developments. <i>Advanced Engineering Materials</i> , <b>2014</b> , 16, 830-849	3.5	675
30	Impact of Rapid Thermal Annealing on Thermoelectric Properties of Bulk Nanostructured Zinc Oxide. <i>Materials Research Society Symposia Proceedings</i> , <b>2013</b> , 1543, 99-104		
29	Note: High resolution alternating current/direct current Harman technique. <i>Review of Scientific Instruments</i> , <b>2013</b> , 84, 106106	1.7	6
28	Effects of impurities on the lattice dynamics of nanocrystalline silicon for thermoelectric application. <i>Journal of Materials Science</i> , <b>2013</b> , 48, 2836-2845	4.3	19
27	Thermoelectric Properties of Nanocrystalline Silicon from a Scaled-Up Synthesis Plant. <i>Advanced Engineering Materials</i> , <b>2013</b> , 15, 379-385	3.5	48

26	A Thermoelectric Generator Concept Using a p-n Junction: Experimental Proof of Principle. <i>Journal of Electronic Materials</i> , <b>2013</b> , 42, 2297-2300	1.9	17
25	Simulation of current-activated pressure-assisted densification <b>2013</b> ,		3
24	Synthesis of Hexagonal Sb <sub>2</sub> Te <sub>3</sub> Nanoplates by Thermal Decomposition of the Single-Source Precursor (Et <sub>2</sub> Sb) <sub>2</sub> Te.. <i>Chemistry of Materials</i> , <b>2012</b> , 24, 2228-2234	9.6	44
23	Laser-sintered thin films of doped SiGe nanoparticles. <i>Applied Physics Letters</i> , <b>2012</b> , 100, 231907	3.4	20
22	Plasma synthesis of nanostructures for improved thermoelectric properties. <i>Journal Physics D: Applied Physics</i> , <b>2011</b> , 44, 174034	3	88
21	Artificially nanostructured n-type SiGe bulk thermoelectrics through plasma enhanced growth of alloy nanoparticles from the gas phase. <i>Journal of Materials Research</i> , <b>2011</b> , 26, 1872-1878	2.5	20
20	From nanoparticles to nanocrystalline bulk: percolation effects in field assisted sintering of silicon nanoparticles. <i>Nanotechnology</i> , <b>2011</b> , 22, 135601	3.4	35
19	High performance low temperature solution-processed zinc oxide thin film transistor. <i>Thin Solid Films</i> , <b>2011</b> , 519, 5623-5628	2.2	37
18	Role of oxygen on microstructure and thermoelectric properties of silicon nanocomposites. <i>Journal of Applied Physics</i> , <b>2011</b> , 110, 113515	2.5	60
17	Photovoltaic Devices from Silicon Nanoparticles. <i>Materials Research Society Symposia Proceedings</i> , <b>2010</b> , 1260, 1		
16	Nanocrystalline silicon compacted by spark-plasma sintering: Microstructure and thermoelectric properties. <i>Materials Research Society Symposia Proceedings</i> , <b>2010</b> , 1267, 1		6
15	Low-temperature transmission electron microscopy study of superconducting Nb <sub>3</sub> Sn. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2010</b> , 207, 1918-1921	1.6	
14	Formation of metallic indium-tin phase from indium-tin-oxide nanoparticles under reducing conditions and its influence on the electrical properties. <i>Journal of Applied Physics</i> , <b>2008</b> , 104, 034501	2.5	34
13	Crystallographic reorientation and nanoparticle coalescence. <i>Physical Review B</i> , <b>2008</b> , 78,	3.3	42
12	Microcrystalline silicon formation by silicon nanoparticles. <i>Journal of Applied Physics</i> , <b>2008</b> , 103, 084305	2.5	39
11	Photostimulated luminescence and thermoluminescence in europium-doped barium magnesium fluoride. <i>Current Applied Physics</i> , <b>2008</b> , 8, 420-424	2.6	1
10	Correlation of the dielectric properties and the PSL-sensitivity in CsBr:Eu image plates. <i>Radiation Measurements</i> , <b>2007</b> , 42, 657-660	1.5	4
9	Influence of dopant compounds on the storage mechanism of CaS:Eu <sup>2+</sup> ,Sm <sup>3+</sup> . <i>Journal of Applied Physics</i> , <b>2006</b> , 100, 073701	2.5	10

8	Modification of the micro-pulling-down method for high-temperature solution growth of miniature bulk crystals. <i>Journal of Crystal Growth</i> , <b>2005</b> , 275, e867-e870	1.6	13
7	The influence of lattice defects on fluorescence and phosphorescence in the europium aluminate $\text{EuAl}_2\text{O}_4$ . <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , <b>2005</b> , 2, 109-112		11
6	Simultaneous excitation of $\text{Ce}^{3+}$ and $\text{Eu}^{3+}$ ions in $\text{Tb}_3\text{Al}_5\text{O}_{12}$ . <i>Radiation Measurements</i> , <b>2004</b> , 38, 539-543	3.5	93
5	On the energy transfer from $\text{Tb}^{3+}$ to $\text{Eu}^{3+}$ in $\text{LiTb}_{1-x}\text{Eu}_x\text{P}_4\text{O}_{12}$ . <i>Radiation Measurements</i> , <b>2004</b> , 38, 529-532	3.5	24
4	Precipitation-induced photostimulated luminescence in $\text{CsBr:Eu}^{2+}$ . <i>Journal of Applied Physics</i> , <b>2003</b> , 93, 5109-5112	2.5	43
3	Storage performance of X-ray irradiated doped $\text{CsBr}$ . <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2002</b> , 191, 163-167	1.2	46
2	Geometric Study of Polymer Embedded Micro Thermoelectric Cooler with Optimized Contact Resistance. <i>Advanced Electronic Materials</i> , 2101042	6.4	1
1	Crystal Structure Analysis and Magneto-Transport Investigation of $\text{Co}_{1-x}\text{Fe}_x\text{Si}$ (with $x$ = 0% to $x$ = 20%). <i>Advanced Electronic Materials</i> , 2101081	6.4	