

Sebastian Koelling

List of Publications by Year in descending order

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54
papers

2,422
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257450

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docs citations

61
times ranked

3148
citing authors

#	ARTICLE	IF	CITATIONS
1	Growth of PbTe nanowires by molecular beam epitaxy. <i>Materials for Quantum Technology</i> , 2022, 2, 015001.	3.1	13
2	Te-doped selective-area grown InAs nanowires for superconducting hybrid devices. <i>Physical Review Materials</i> , 2022, 6, .	2.4	1
3	Electronic Structure and Epitaxy of CdTe Shells on InSb Nanowires. <i>Advanced Science</i> , 2022, 9, e2105722.	11.2	7
4	Extended-SWIR Photodetection in All-Group IV Core/Shell Nanowires. <i>ACS Photonics</i> , 2022, 9, 914-921.	6.6	8
5	High-Bandwidth Extended-SWIR GeSn Photodetectors on Silicon Achieving Ultrafast Broadband Spectroscopic Response. <i>ACS Photonics</i> , 2022, 9, 1425-1433.	6.6	28
6	Prismatic Ge-rich inclusions in the hexagonal SiGe shell of GaP@SiGe nanowires by controlled faceting. <i>Nanoscale</i> , 2021, 13, 9436-9445.	5.6	1
7	Highly Tensile-Strained Self-Assembled Ge Quantum Dots on InP Substrates for Integrated Light Sources. <i>ACS Applied Nano Materials</i> , 2021, 4, 897-906.	5.0	12
8	Hard Superconducting Gap and Diffusion-Induced Superconductors in Ge@Si Nanowires. <i>Nano Letters</i> , 2020, 20, 122-130.	9.1	18
9	Design and Characterization of a Sharp GaAs/Zn(Mn)Se Heterovalent Interface: A Sub-Nanometer Scale View. <i>Nanomaterials</i> , 2020, 10, 1315.	4.1	0
10	Evolution of the precipitate composition during annealing of vanadium micro-alloyed steels by in-situ SANS. <i>Acta Materialia</i> , 2020, 201, 217-230.	7.9	12
11	Ballistic Phonons in Ultrathin Nanowires. <i>Nano Letters</i> , 2020, 20, 2703-2709.	9.1	30
12	Kinetic Control of Morphology and Composition in Ge/GeSn Core/Shell Nanowires. <i>ACS Nano</i> , 2020, 14, 2445-2455.	14.6	17
13	Editorial Expression of Concern: Quantized Majorana conductance. <i>Nature</i> , 2020, 581, E4-E4.	27.8	10
14	Direct-bandgap emission from hexagonal Ge and SiGe alloys. <i>Nature</i> , 2020, 580, 205-209.	27.8	231
15	In-plane selective area InSb@Al nanowire quantum networks. <i>Communications Physics</i> , 2020, 3, .	5.3	37
16	(Invited) Probing Semiconductor Heterostructures from the Atomic to the Micrometer Scale. <i>ECS Transactions</i> , 2020, 98, 447-455.	0.5	6
17	Composition analysis and transition energies of ultrathin Sn-rich GeSn quantum wells. <i>Physical Review Materials</i> , 2020, 4, .	2.4	10
18	(Invited) Probing Semiconductor Heterostructures from the Atomic to the Micrometer Scale. <i>ECS Meeting Abstracts</i> , 2020, MA2020-02, 1770-1770.	0.0	0

#	ARTICLE	IF	CITATIONS
19	(Invited) Engineering SiGeSn Semiconductors for MIR and THz Opto-electronic Devices. ECS Meeting Abstracts, 2020, MA2020-02, 1718-1718.	0.0	0
20	Absence of Quantum-Confined Stark Effect in GaN Quantum Disks Embedded in (Al,Ga)N Nanowires Grown by Molecular Beam Epitaxy. Nano Letters, 2019, 19, 5938-5948.	9.1	7
21	Strain engineering in Ge/GeSn core/shell nanowires. Applied Physics Letters, 2019, 115, .	3.3	22
22	Interaction of precipitation with austenite-to-ferrite phase transformation in vanadium micro-alloyed steels. Acta Materialia, 2019, 181, 10-24.	7.9	41
23	Phonon Engineering in Twinning Superlattice Nanowires. Nano Letters, 2019, 19, 4702-4711.	9.1	31
24	High Mobility Stemless InSb Nanowires. Nano Letters, 2019, 19, 3575-3582.	9.1	36
25	Bottom-Up Grown 2D InSb Nanostructures. Advanced Materials, 2019, 31, e1808181.	21.0	26
26	Selective-area chemical beam epitaxy of in-plane InAs one-dimensional channels grown on InP(001), InP(111)B, and InP(011) surfaces. Physical Review Materials, 2019, 3, .	2.4	48
27	Te incorporation and activation as n -type dopant in self-catalyzed GaAs nanowires. Physical Review Materials, 2019, 3, .	2.4	17
28	Efficient Green Emission from Wurtzite Al _x In _{1-x} P Nanowires. Nano Letters, 2018, 18, 3543-3549.	9.1	16
29	Martensite crystallography and chemistry in dual phase and fully martensitic steels. Materials Characterization, 2018, 139, 411-420.	4.4	22
30	Critical strain for Sn incorporation into spontaneously graded Ge/GeSn core/shell nanowires. Nanoscale, 2018, 10, 7250-7256.	5.6	28
31	Micro and Nanoscale Characterization of Complex Multilayer-Structured White Etching Layer in Rails. Metals, 2018, 8, 749.	2.3	17
32	Spin-Orbit Interaction and Induced Superconductivity in a One-Dimensional Hole Gas. Nano Letters, 2018, 18, 6483-6488.	9.1	22
33	Boosting Hole Mobility in Coherently Strained [110]-Oriented GeSi Core-Shell Nanowires. Nano Letters, 2017, 17, 2259-2264.	9.1	51
34	Growth and Optical Properties of Direct Band Gap Ge _{0.87} Sn _{0.13} Core/Shell Nanowire Arrays. Nano Letters, 2017, 17, 1538-1544.	9.1	72
35	Atomic Layer Deposition of In ₂ O ₃ :H from InCp and H ₂ O/O ₂ : Microstructure and Isotope Labeling Studies. ACS Applied Materials & Interfaces, 2017, 9, 592-601.	8.0	21
36	True Atomic-Scale Imaging in Three Dimensions: A Review of the Rebirth of Field-Ion Microscopy. Microscopy and Microanalysis, 2017, 23, 210-220.	0.4	16

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37	Hard Superconducting Gap in InSb Nanowires. Nano Letters, 2017, 17, 2690-2696.	9.1	103
38	Atom-by-Atom Analysis of Semiconductor Nanowires with Parts Per Million Sensitivity. Nano Letters, 2017, 17, 599-605.	9.1	35
39	Single-Crystalline Hexagonal Silicon- ⁶⁶ Germanium. Nano Letters, 2017, 17, 85-90.	9.1	59
40	Ballistic superconductivity in semiconductor nanowires. Nature Communications, 2017, 8, 16025.	12.8	181
41	Observation of Conductance Quantization in InSb Nanowire Networks. Nano Letters, 2017, 17, 6511-6515.	9.1	37
42	InSb Nanowires with Built-In Ga _x In _{1-x} Sb Tunnel Barriers for Majorana Devices. Nano Letters, 2017, 17, 721-727.	9.1	9
43	Exploration of Doped Semiconductors at the Atomic Scale. Microscopy and Microanalysis, 2017, 23, 670-671.	0.4	0
44	Topography and structure of ultrathin topological insulator Sb ₂ Te ₃ films on Si(111) grown by means of molecular beam epitaxy. Journal of Crystal Growth, 2016, 453, 158-162.	1.5	20
45	High-purity 3D nano-objects grown by focused-electron-beam induced deposition. Nanotechnology, 2016, 27, 355301.	2.6	34
46	Influence of growth conditions on the performance of InP nanowire solar cells. Nanotechnology, 2016, 27, 454003.	2.6	10
47	P ⁿ Junctions in Ultrathin Topological Insulator Sb ₂ Te ₃ /Bi ₂ Te ₃ Heterostructures Grown by Molecular Beam Epitaxy. Crystal Growth and Design, 2016, 16, 2057-2061.	3.0	36
48	Hexagonal Silicon Realized. Nano Letters, 2015, 15, 5855-5860.	9.1	142
49	Suppressing Segregation in Highly Phosphorus Doped Silicon Monolayers. ACS Nano, 2015, 9, 12537-12541.	14.6	36
50	Sponge-like Si-SiO ₂ nanocomposite Morphology studies of spinodally decomposed silicon-rich oxide. Applied Physics Letters, 2013, 103, 131911.	3.3	10
51	Failure mechanisms of silicon-based atom-probe tips. Ultramicroscopy, 2009, 109, 486-491.	1.9	21
52	High depth resolution analysis of Si/SiGe multilayers with the atom probe. Applied Physics Letters, 2009, 95, .	3.3	33
53	Conductive diamond probes with electroplated holder chips. Microelectronic Engineering, 2007, 84, 1178-1181.	2.4	10
54	BenchIT Performance measurement and comparison for scientific applications. Advances in Parallel Computing, 2004, 13, 501-508.	0.3	10