

Stefano Cecchi

List of Publications by Year in descending order

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80
papers

1,386
citations

361045

20
h-index

344852

36
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82
all docs

82
docs citations

82
times ranked

1741
citing authors

#	ARTICLE	IF	CITATIONS
1	Hints for a General Understanding of the Epitaxial Rules for van der Waals Epitaxy from GeSbTe Alloys. <i>Advanced Materials Interfaces</i> , 2022, 9, .	1.9	6
2	Crystallization and Electrical Properties of Ge-Rich GeSbTe Alloys. <i>Nanomaterials</i> , 2022, 12, 631.	1.9	12
3	Evolution of Low-Frequency Vibrational Modes in Ultrathin GeSbTe Films. <i>Physica Status Solidi - Rapid Research Letters</i> , 2021, 15, 2000434.	1.2	2
4	Effect of Substrates and Thermal Treatments on Metalorganic Chemical Vapor Deposition-Grown Sb ₂ Te ₃ Thin Films. <i>Crystal Growth and Design</i> , 2021, 21, 5135-5144.	1.4	8
5	Room-temperature ferroelectric switching of spin-to-charge conversion in germanium telluride. <i>Nature Electronics</i> , 2021, 4, 740-747.	13.1	62
6	Increasing Optical Efficiency in the Telecommunication Bands of Strain-Engineered Ga(As,Bi) Alloys. <i>Physical Review Applied</i> , 2020, 14, .	1.5	9
7	Probing the in-plane electron spin polarization in Ge/Si _{0.15} Ge _{0.85} multiple quantum wells. <i>Physical Review B</i> , 2020, 101, .	1.1	4
8	Crystallization of nano amorphized regions in thin epitaxial layer of Ge ₂ Sb ₂ Te ₅ . <i>Journal Physics D: Applied Physics</i> , 2020, 53, 194001.	1.3	1
9	Crystallization Study of Ge-Rich (GeTe) _m (Sb ₂ Te ₃) _n Using Two-Step Annealing Process. <i>Physica Status Solidi - Rapid Research Letters</i> , 2019, 13, 1800632.	1.2	5
10	Interplay between Structural and Thermoelectric Properties in Epitaxial Sb _{2+x} Te ₃ Alloys. <i>Advanced Functional Materials</i> , 2019, 29, 1805184.	7.8	25
11	Mapping the band structure of GeSbTe phase change alloys around the Fermi level. <i>Communications Physics</i> , 2018, 1, .	2.0	16
12	Ferroelectric Control of the Spin Texture in GeTe. <i>Nano Letters</i> , 2018, 18, 2751-2758.	4.5	114
13	2D or Not 2D: Strain Tuning in Weakly Coupled Heterostructures. <i>Advanced Functional Materials</i> , 2018, 28, 1705901.	7.8	49
14	Investigation of charge-to-spin conversion in GeTe. , 2018, . .		0
15	Modulation of van der Waals and classical epitaxy induced by strain at the Si step edges in GeSbTe alloys. <i>Scientific Reports</i> , 2017, 7, 1466.	1.6	21
16	Role of interfaces on the stability and electrical properties of Ge ₂ Sb ₂ Te ₅ crystalline structures. <i>Scientific Reports</i> , 2017, 7, 2616.	1.6	15
17	Improved structural and electrical properties in native Sb ₂ Te ₃ /Ge _x Sb ₂ Te _{3+x} van der Waals superlattices due to intermixing mitigation. <i>APL Materials</i> , 2017, 5, .	2.2	26
18	Thermal resistance measurement of In ₃ SbTe ₂ nanowires. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2017, 214, 1600500.	0.8	5

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19	Unconventional Strain Relaxation of Sb_2Te_3 Grown on a $\text{GeTe}/\text{Sb}_2\text{Te}_3/\text{GeTe}$ Heterostructure on Si(111). <i>Nanoscience and Nanotechnology Letters</i> , 2017, 9, 1114-1117.	0.4	5
20	MOCVD growth and structural characterization of InSbTe nanowires. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2016, 213, 335-338.	0.8	14
21	(Invited) The Use of Silicon-Germanium Superlattices in Thermoelectric Devices and Microfabricated Generators. <i>ECS Transactions</i> , 2016, 75, 469-478.	0.3	1
22	Strong confinement-induced engineering of the g factor and lifetime of conduction electron spins in Ge quantum wells. <i>Nature Communications</i> , 2016, 7, 13886.	5.8	28
23	Effect of asymmetric concentration profile on thermal conductivity in Ge/SiGe superlattices. <i>Applied Physics Letters</i> , 2016, 108, 203102.	1.5	11
24	Metal - Insulator Transition Driven by Vacancy Ordering in GeSbTe Phase Change Materials. <i>Scientific Reports</i> , 2016, 6, 23843.	1.6	93
25	Low power phase change memory switching of ultra-thin $\text{In}_3\text{Sb}_1\text{Te}_2$ nanowires. <i>Applied Physics Letters</i> , 2016, 109, .	1.5	18
26	Thermoelectric cross-plane properties on p- and n-Ge/Si _{1-x} Ge _x superlattices. <i>Thin Solid Films</i> , 2016, 602, 90-94.	0.8	4
27	MOCVD growth and thermal analysis of Sb_2Te_3 thin films and nanowires. , 2015, , .		2
28	Modelling and experimental verification of a Ge/SiGe thermoelectric generator. , 2015, , .		3
29	Structural investigations of the Si_{12}Ge superstructure. <i>Journal of Applied Crystallography</i> , 2015, 48, 262-268.	1.9	3
30	Review of thermoelectric characterization techniques suitable for SiGe multilayer structures. <i>European Physical Journal B</i> , 2015, 88, 1.	0.6	7
31	Optical Interconnects based on Ge/SiGe Multiple Quantum Well Structures. , 2015, , .		0
32	(Invited) Photonic Interconnection Made by a Ge/SiGe MQW Modulator Connected to a Ge/SiGe MQW Photodetector through a SiGe Waveguide. <i>ECS Transactions</i> , 2014, 64, 761-773.	0.3	2
33	High quality SiGe waveguide platform for Ge photonics on bulk silicon substrates. , 2014, , .		0
34	Thermal transport through short-period SiGe nanodot superlattices. <i>Journal of Applied Physics</i> , 2014, 115, 044312.	1.1	22
35	Dislocation engineering in SiGe on periodic and aperiodic Si(001) templates studied by fast scanning X-ray nanodiffraction. <i>Applied Physics Letters</i> , 2014, 104, .	1.5	15
36	Individual heterojunctions of $\text{D}_{3\text{C}}$ germanium crystals on silicon CMOS for monolithically integrated X-ray detector. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2014, 211, 131-135.	0.8	3

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37	(Invited) The Thermoelectric Properties of Ge/SiGe Based Superlattices: from Materials to Energy Harvesting Modules. ECS Transactions, 2014, 64, 929-937.	0.3	1
38	Thin SiGe virtual substrates for Ge heterostructures integration on silicon. Journal of Applied Physics, 2014, 115, .	1.1	28
39	Multilayered Ge/SiGe Material in Microfabricated Thermoelectric Modules. Journal of Electronic Materials, 2014, 43, 3838-3843.	1.0	5
40	Integrated germanium optical interconnects on silicon substrates. Nature Photonics, 2014, 8, 482-488.	15.6	196
41	Prospects for SiGe thermoelectric generators. Solid-State Electronics, 2014, 98, 70-74.	0.8	21
42	Strain release management in SiGe/Si films by substrate patterning. Applied Physics Letters, 2014, 105, 242103.	1.5	3
43	Individual heterojunctions of 3D germanium crystals on silicon CMOS for monolithically integrated X-ray detector (Phys. Status Solidi A 1â•2014). Physica Status Solidi (A) Applications and Materials Science, 2014, 211, n/a-n/a.	0.8	1
44	Thermal Conductivity Measurement Methods for SiGe Thermoelectric Materials. Journal of Electronic Materials, 2013, 42, 2376-2380.	1.0	9
45	Ge/SiGe Superlattices for Thermoelectric Devices Grown by Low-Energy Plasma-Enhanced Chemical Vapor Deposition. Journal of Electronic Materials, 2013, 42, 2030-2034.	1.0	10
46	Power Factor Characterization of Ge/SiGe Thermoelectric Superlattices at 300ÂK. Journal of Electronic Materials, 2013, 42, 1449-1453.	1.0	7
47	Ge/SiGe superlattices for nanostructured thermoelectric modules. Thin Solid Films, 2013, 543, 153-156.	0.8	16
48	Prospects for SiGe thermoelectric generators. , 2013, , .		1
49	Refractive index change induced by quantum confined stark effect in Ge quantum wells. , 2013, , .		0
50	The cross-plane thermoelectric properties of p-Ge/Si _{0.5} Ge _{0.5} superlattices. Applied Physics Letters, 2013, 103, .	1.5	47
51	Ge/SiGe superlattices for thermoelectric energy conversion devices. Journal of Materials Science, 2013, 48, 2829-2835.	1.7	23
52	Electro-refractive effect in Ge/SiGe multiple quantum wells. Applied Physics Letters, 2013, 102, .	1.5	23
53	Photoinduced inverse spin Hall effect in Pt/Ge(001) at room temperature. Applied Physics Letters, 2013, 102, .	1.5	23
54	Phase-shift in waveguide integrated Ge quantum wells. , 2013, , .		0

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55	The thermoelectric properties of Ge/SiGe modulation doped superlattices. Journal of Applied Physics, 2013, 113, .	1.1	65
56	Spin-polarized photoemission from SiGe heterostructures. , 2013, , .		0
57	Tailoring the spin polarization in Ge/SiGe multiple quantum wells. , 2013, , .		2
58	Optical spin orientation in group-IV heterostructures. Journal of Applied Physics, 2013, 113, 17C504.	1.1	3
59	Controlling the polarization dynamics by strong THz fields in photoexcited germanium quantum wells. New Journal of Physics, 2013, 15, 075004.	1.2	8
60	Fabrication of Ge-on-Si Substrates for the Integration of High-Quality GaAs Nanostructures on Si. ECS Transactions, 2013, 50, 783-789.	0.3	1
61	(Invited) Optical Spin Orientation in SiGe Heterostructures. ECS Transactions, 2013, 50, 831-836.	0.3	1
62	Si/SiGe Thermoelectric Generators. ECS Transactions, 2013, 50, 959-963.	0.3	1
63	Publisher's Note: Dephasing in Ge/SiGe quantum wells measured by means of coherent oscillations [Phys. Rev. B86, 201303(R) (2012)]. Physical Review B, 2013, 87, .	1.1	0
64	Optical tailoring of carrier spin polarization in Ge/SiGe multiple quantum wells. Applied Physics Letters, 2013, 102, 012408.	1.5	14
65	Epitaxial Si _{1-x} Ge _x alloys studied by spin-polarized photoemission. Physical Review B, 2013, 88, .	1.1	17
66	Holes in germanium quantum wells: spin relaxation and temperature dynamics. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 1238-1241.	0.8	0
67	Photoinduced inverse spin-Hall effect in Pt/GaAs and Pt/Ge. , 2013, , .		0
68	Ge/SiGe heterostructures as emitters of polarized electrons. Journal of Applied Physics, 2012, 111, 063916.	1.1	15
69	Optical Spin Injection and Spin Lifetime in Ge Heterostructures. Physical Review Letters, 2012, 108, 156603.	2.9	89
70	Dephasing in Ge/SiGe quantum wells measured by means of coherent oscillations. Physical Review B, 2012, 86, .	1.1	3
71	Optical spin injection and spin lifetime in Ge heterostructures. , 2012, , .		0
72	1.55 eV direct bandgap electroluminescence from strained n-Ge quantum wells grown on Si substrates. Applied Physics Letters, 2012, 101, .	1.5	19

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73	Direct-Gap Gain and Optical Absorption in Germanium Correlated to the Density of Photoexcited Carriers, Doping, and Strain. <i>Physical Review Letters</i> , 2012, 109, 057402.	2.9	84
74	Si/SiGe nanoscale engineered thermoelectric materials for energy harvesting. , 2012, , .		0
75	Composition profiling of inhomogeneous SiGe nanostructures by Raman spectroscopy. <i>Nanoscale Research Letters</i> , 2012, 7, 633.	3.1	6
76	High quality GaAs quantum nanostructures grown by droplet epitaxy on Ge and Ge ϵ on ϵ Si substrates. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2012, 9, 202-205.	0.8	0
77	Hole system heating by ultrafast interband energy transfer in optically excited Ge/SiGe quantum wells. <i>Physical Review B</i> , 2012, 85, .	1.1	3
78	Spin polarized photoemission from strained Ge epilayers grown by low-energy plasma-enhanced CVD (LEPECVD). , 2011, , .		0
79	Optical spin injection in SiGe heterostructures. <i>Proceedings of SPIE</i> , 2011, , .	0.8	2
80	Spin polarized photoemission from strained Ge epilayers. <i>Applied Physics Letters</i> , 2011, 98, .	1.5	26