

Richard Geiger

List of Publications by Year in descending order

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30
papers

2,055
citations

687363

13
h-index

940533

16
g-index

31
all docs

31
docs citations

31
times ranked

1891
citing authors

#	ARTICLE	IF	CITATIONS
1	Lasing in direct-bandgap GeSn alloy grown on Si. Nature Photonics, 2015, 9, 88-92.	31.4	1,016
2	Analysis of enhanced light emission from highly strained germanium microbridges. Nature Photonics, 2013, 7, 466-472.	31.4	367
3	Optically Pumped GeSn Microdisk Lasers on Si. ACS Photonics, 2016, 3, 1279-1285.	6.6	195
4	Group IV Direct Band Gap Photonics: Methods, Challenges, and Opportunities. Frontiers in Materials, 2015, 2, .	2.4	87
5	1.9% bi-axial tensile strain in thick germanium suspended membranes fabricated in optical germanium-on-insulator substrates for laser applications. Applied Physics Letters, 2015, 107, .	3.3	70
6	Excess carrier lifetimes in Ge layers on Si. Applied Physics Letters, 2014, 104, .	3.3	62
7	Germanium under High Tensile Stress: Nonlinear Dependence of Direct Band Gap vs Strain. ACS Photonics, 2016, 3, 1907-1911.	6.6	48
8	Power-Dependent Raman Analysis of Highly Strained Si Nanobridges. Nano Letters, 2014, 14, 1249-1254.	9.1	44
9	SiGeSn Ternaries for Efficient Group IV Heterostructure Light Emitters. Small, 2017, 13, 1603321.	10.0	40
10	Accurate strain measurements in highly strained Ge microbridges. Applied Physics Letters, 2016, 108, .	3.3	33
11	Transient mid-IR study of electron dynamics in TiO2 conduction band. Analyst, The, 2013, 138, 1966.	3.5	19
12	Structural and optical properties of 200 mm germanium-on-insulator (GeOI) substrates for silicon photonics applications. Proceedings of SPIE, 2015, , .	0.8	15
13	Ultra-high amplified strain on 200 mm optical Germanium-On-Insulator (GeOI) substrates: towards CMOS compatible Ge lasers. Proceedings of SPIE, 2016, , .	0.8	14
14	Determining the directional strain shift coefficients for tensile Ge: a combined x-ray diffraction and Raman spectroscopy study. Measurement Science and Technology, 2017, 28, 025501.	2.6	12
15	A Patterning-Based Strain Engineering for Sub-22 nm Node FinFETs. IEEE Electron Device Letters, 2014, 35, 300-302.	3.9	9
16	Top-down method to introduce ultra-high elastic strain. Journal of Materials Research, 2017, 32, 726-736.	2.6	9
17	Enhanced light emission from Ge micro bridges uniaxially strained beyond 3%. , 2013, , .		4
18	Direct bandgap GeSn microdisk lasers at 2.5 μ m for monolithic integration on Si-platform. , 2015, , .		4

#	ARTICLE	IF	CITATIONS
19	Strained Ge microbridges to obtain a direct bandgap laser. , 2014, , .		2
20	Excess carrier lifetimes in Ge layers on Si. , 2013, , .		1
21	Carrier lifetimes in uniaxially strained Ge micro bridges. , 2014, , .		1
22	Epitaxy and photoluminescence studies of high quality GeSn heterostructures with Sn concentrations up to 13 at.% . , 2014, , .		1
23	Strain engineering for direct bandgap GeSn alloys. , 2014, , .		1
24	Photocurrent spectroscopy and X-ray microdiffraction study of highly strained germanium nanostructures. , 2015, , .		0
25	A Direct Band Gap GeSn Laser on Si. , 2015, , .		0
26	Optical spectroscopy on strained Ge microbridges at the transition to a direct band gap. , 2015, , .		0
27	The GeSn laser — Enabler for monolithic integration of photonics on Si. , 2015, , .		0
28	On the track towards an electrically pumped group IV laser. , 2016, , .		0
29	Nonlinear strain dependences in highly strained germanium micromembranes for on-chip light source applications (Conference Presentation). , 2016, , .		0
30	Direct bandgap GeSn alloys for laser application. , 2015, , .		0