

# Richard Geiger

## List of Publications by Year in descending order

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Version: 2024-02-01

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	Top-down method to introduce ultra-high elastic strain. Journal of Materials Research, 2017, 32, 726-736.	2.6	9
2	SiGeSn Ternaries for Efficient Group IV Heterostructure Light Emitters. Small, 2017, 13, 1603321.	10.0	40
3	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
4	Accurate strain measurements in highly strained Ge microbridges. Applied Physics Letters, 2016, 108, .	3.3	33
5	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
6	Germanium under High Tensile Stress: Nonlinear Dependence of Direct Band Gap vs Strain. ACS Photonics, 2016, 3, 1907-1911.	6.6	48
7	On the track towards an electrically pumped group IV laser. , 2016, , .		0
8	Nonlinear strain dependences in highly strained germanium micromembranes for on-chip light source applications (Conference Presentation). , 2016, , .		0
9	Optically Pumped GeSn Microdisk Lasers on Si. ACS Photonics, 2016, 3, 1279-1285.	6.6	195
10	Photocurrent spectroscopy and X-ray microdiffraction study of highly strained germanium nanostructures. , 2015, , .		0
11	A Direct Band Gap GeSn Laser on Si. , 2015, , .		0
12	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
13	Direct bandgap GeSn microdisk lasers at 2.5 $\mu$ m for monolithic integration on Si-platform. , 2015, , .		4
14	Group IV Direct Band Gap Photonics: Methods, Challenges, and Opportunities. Frontiers in Materials, 2015, 2, .	2.4	87
15	Optical spectroscopy on strained Ge microbridges at the transition to a direct band gap. , 2015, , .		0
16	The GeSn laser &#x2014; Enabler for monolithic integration of photonics on Si. , 2015, , .		0
17	Lasing in direct-bandgap GeSn alloy grown on Si. Nature Photonics, 2015, 9, 88-92.	31.4	1,016
18	Structural and optical properties of 200 mm germanium-on-insulator (GeOI) substrates for silicon photonics applications. Proceedings of SPIE, 2015, , .	0.8	15

#	ARTICLE	IF	CITATIONS
19	Direct bandgap GeSn alloys for laser application. , 2015, , .		0
20	Excess carrier lifetimes in Ge layers on Si. Applied Physics Letters, 2014, 104, .	3.3	62
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	Strained Ge microbridges to obtain a direct bandgap laser. , 2014, , .		2
24	Strain engineering for direct bandgap GeSn alloys. , 2014, , .		1
25	A Patterning-Based Strain Engineering for Sub-22 nm Node FinFETs. IEEE Electron Device Letters, 2014, 35, 300-302.	3.9	9
26	Power-Dependent Raman Analysis of Highly Strained Si Nanobridges. Nano Letters, 2014, 14, 1249-1254.	9.1	44
27	Enhanced light emission from Ge micro bridges uniaxially strained beyond 3%. , 2013, , .		4
28	Excess carrier lifetimes in Ge layers on Si. , 2013, , .		1
29	Transient mid-IR study of electron dynamics in TiO2 conduction band. Analyst, The, 2013, 138, 1966.	3.5	19
30	Analysis of enhanced light emission from highly strained germanium microbridges. Nature Photonics, 2013, 7, 466-472.	31.4	367