Roberto Bergamaschini

List of Publications by Citations

40 papers	604 citations	14 h-index	23 g-index
45 ext. papers	691 ext. citations	5.1 avg, IF	3.67 L-index

#	Paper	IF	Citations
40	Scaling hetero-epitaxy from layers to three-dimensional crystals. *Science*, **2012**, 335, 1330-4	33.3	125
39	Faceting of Equilibrium and Metastable Nanostructures: A Phase-Field Model of Surface Diffusion Tackling Realistic Shapes. *Crystal Growth and Design*, **2015**, 15, 2787-2794	3.5	54
38	Self-aligned Ge and SiGe three-dimensional epitaxy on dense Si pillar arrays. *Surface Science Reports* , **2013**, 68, 390-417	12.9	36
37	Anomalous smoothing preceding island formation during growth on patterned substrates. *Physical Review Letters*, **2012**, 109, 156101	7.4	34
36	Ge Crystals on Si Show Their Light. *Physical Review Applied*, **2014**, 1,	4.3	28
35	Critical strain for Sn incorporation into spontaneously graded Ge/GeSn core/shell nanowires. *Nanoscale*, **2018**, 10, 7250-7256	7.7	24
34	Engineered Coalescence by Annealing 3D Ge Microstructures into High-Quality Suspended Layers on Si. *ACS Applied Materials & Interfaces*, **2015**, 7, 19219-25	9.5	23
33	Growth kinetics and morphological analysis of homoepitaxial GaAs fins by theory and experiment. *Physical Review Materials*, **2018**, 2,	3.2	20
32	Competition Between Kinetics and Thermodynamics During the Growth of Faceted Crystal by Phase Field Modeling. *Physica Status Solidi (B): Basic Research*, **2019**, 256, 1800518	1.3	17
31	Phase-field simulations of faceted Ge/Si-crystal arrays, merging into a suspended film. *Applied Surface Science*, **2017**, 391, 33-38	6.7	16
30	3D heteroepitaxy of mismatched semiconductors on silicon. *Thin Solid Films*, **2014**, 557, 42-49	2.2	16
29	Temperature-dependent evolution of the wetting layer thickness during Ge deposition on Si(001). *Nanotechnology*, **2011**, 22, 285704	3.4	15
28	Strain engineering in Ge/GeSn core/shell nanowires. *Applied Physics Letters*, **2019**, 115, 113102	3.4	14
27	Modeling the competition between elastic and plastic relaxation in semiconductor heteroepitaxy: From cyclic growth to flat films. *Physical Review B*, **2016**, 94,	3.3	14
26	Dynamics of pit filling in heteroepitaxy via phase-field simulations. *Physical Review B*, **2016**, 94,	3.3	14
25	Continuum modelling of semiconductor heteroepitaxy: an applied perspective. *Advances in Physics: X*, **2016**, 1, 331-367	5.1	13
24	Dislocation-Free SiGe/Si Heterostructures. *Crystals*, **2018**, 8, 257	2.3	13

23	Kinetic Control of Morphology and Composition in Ge/GeSn Core/Shell Nanowires. *ACS Nano*, **2020**, 14, 2445-2455	16.7	12
22	(Invited) Three-Dimensional Epitaxial Si1-XGex, Ge and SiC Crystals on Deeply Patterned Si Substrates. *ECS Transactions*, **2014**, 64, 631-648	1	12
21	Optimal Growth Conditions for Selective Ge Islands Positioning on Pit-Patterned Si(001). *Nanoscale Research Letters*, **2010**, 5, 1873-7	5	12
20	Temperature-controlled coalescence during the growth of Ge crystals on deeply patterned Si substrates. *Journal of Crystal Growth*, **2016**, 440, 86-95	1.6	11
19	Kinetic growth mode of epitaxial GaAs on Si(001) micro-pillars. *Journal of Applied Physics*, **2016**, 120, 245702	2.5	10
18	Morphological evolution of Ge/Si nano-strips driven by Rayleigh-like instability. *Applied Physics Letters*, **2018**, 112, 022101	3.4	9
17	The interplay of morphological and compositional evolution in crystal growth: a phase-field model. *Philosophical Magazine*, **2014**, 94, 2162-2169	1.6	9
16	Reduced-Pressure Chemical Vapor Deposition Growth of Isolated Ge Crystals and Suspended Layers on Micrometric Si Pillars. *ACS Applied Materials & Interfaces*, **2016**, 8, 26374-26380	9.5	9
15	Optically reconfigurable polarized emission in Germanium. *Scientific Reports*, **2018**, 8, 11119	4.9	6
14	Growth and Coalescence of 3C-SiC on Si(111) Micro-Pillars by a Phase-Field Approach. *Materials*, **2019**, 12,	3.5	5
13	A self-ordered, body-centered tetragonal superlattice of SiGe nanodot growth by reduced pressure CVD. *Nanotechnology*, **2017**, 28, 485303	3.4	5
12	Solving the critical thermal bowing in 3C-SiC/Si(111) by a tilting Si pillar architecture. *Journal of Applied Physics*, **2018**, 123, 185703	2.5	5
11	Sunburst pattern by kinetic segregation in core-shell nanowires: A phase-field study. *Applied Surface Science*, **2020**, 517, 146056	6.7	4
10	Selective Area Epitaxy of GaAs/Ge/Si Nanomembranes: A Morphological Study. *Crystals*, **2020**, 10, 57	2.3	4
9	Epitaxial Ge-crystal arrays for X-ray detection. *Journal of Instrumentation*, **2014**, 9, C03019-C03019	1	4
8	Self-Assembly of Nanovoids in Si Microcrystals Epitaxially Grown on Deeply Patterned Substrates. *Crystal Growth and Design*, **2020**, 20, 2914-2920	3.5	2
7	A Structural Characterization of GaAs MBE Grown on Si Pillars. *Acta Physica Polonica A*, **2014**, 125, 986-990	0.6	2
6	Growth of thick [111]-oriented 3C-SiC films on T-shaped Si micropillars. *Materials and Design*, **2021**, 109883	8.1	2

5	Reentrant Behavior of the Density vs. Temperature of Indium Islands on GaAs(111)A. *Nanomaterials* , **2020**, 10,	5.4	1
4	Motion of crystalline inclusions by interface diffusion in the proximity of free surfaces. *Journal of Nanoparticle Research*, **2019**, 21, 1	2.3	1
3	Faceting of Si and Ge crystals grown on deeply patterned Si substrates in the kinetic regime: phase-field modelling and experiments. *Scientific Reports*, **2021**, 11, 18825	4.9	1
2	Slip trace-induced terrace erosion. *Applied Surface Science*, **2019**, 466, 454-458	6.7	
1	Prismatic Ge-rich inclusions in the hexagonal SiGe shell of GaP-Si-SiGe nanowires by controlled faceting. *Nanoscale*, **2021**, 13, 9436-9445	7.7	