Simone Assali

List of Publications by Year
in descending order

53 papers	1,568 citations	304743 22 h-index	302126 39 g-index
53 all docs	53 docs citations	53 times ranked	1993 citing authors

#	Article	IF	Citations
1	Enhanced GeSn Microdisk Lasers Directly Released on Si. Advanced Optical Materials, 2022, 10, 2101213.	7.3	22
2	Extracting the Complex Refractive Index of an Ultrathin Layer at Terahertz Frequencies With no Prior Knowledge of Substrate Absorption Loss. IEEE Transactions on Terahertz Science and Technology, 2022, 12, 385-391.	3.1	1
3	Extended-SWIR Photodetection in All-Group IV Core/Shell Nanowires. ACS Photonics, 2022, 9, 914-921.	6.6	8
4	Improved GeSn microdisk lasers directly sitting on Si. , 2022, , .		0
5	High-Bandwidth Extended-SWIR GeSn Photodetectors on Silicon Achieving Ultrafast Broadband Spectroscopic Response. ACS Photonics, 2022, 9, 1425-1433.	6.6	28
6	1D photonic crystal GeSn-on-insulator nanobeam laser. , 2022, , .		0
7	Recrystallization and interdiffusion processes in laser-annealed strain-relaxed metastable Ge0.89Sn0.11. Journal of Applied Physics, 2022, 131, .	2.5	7
8	Optically pumped low-threshold microdisk lasers on a GeSn-on-insulator substrate with reduced defect density. Photonics Research, 2022, 10, 1332.	7.0	8
9	Geâ€“Ge0.92Sn0.08 coreâ€“shell single nanowire infrared photodetector with superior characteristics for on-chip optical communication. Applied Physics Letters, 2022, 120, .	3.3	8
10	A Lightâ€Hole Germanium Quantum Well on Silicon. Advanced Materials, 2022, 34, e2201192.	21.0	6
11	Direct bandgap GeSn nanowires enabled with ultrahigh tension from harnessing intrinsic compressive strain. Applied Physics Letters, 2022, 120, .	3.3	1
12	Allâ€Group IV Transferable Membrane Midâ€Infrared Photodetectors. Advanced Functional Materials, 2021, 31, 2006329.	14.9	44
13	GeSn membrane mid-infrared photodetectors. , 2021, , .		0
14	Midinfrared Emission and Absorption in Strained and Relaxed Direct-Band-Gap <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:msub><mml:mi>Ge</mml:mi><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^’</mml:mo><mml:mi>x</mml:m Semiconductors. Physical Review Applied, 2021, 15, .	3.8	15
15	Monolithic infrared silicon photonics: The rise of (Si)GeSn semiconductors. Applied Physics Letters, 2021, 118, .	3.3	80
16	Combined Iodine- and Sulfur-Based Treatments for an Effective Passivation of GeSn Surface. Journal of Physical Chemistry C, 2021, 125, 9516-9525.	3.1	7
17	Extended Short-Wave Infrared Absorption in Group-IV Nanowire Arrays. Physical Review Applied, 2021, 15, .	3.8	4
18	1D photonic crystal direct bandgap GeSn-on-insulator laser. Applied Physics Letters, 2021, 119, .	3.3	26

#	Article	IF	Citations
19	Atomic Pathways of Solute Segregation in the Vicinity of Nanoscale Defects. Nano Letters, 2021, 21, 9882-9888.	9.1	9
20	Decoupling the effects of composition and strain on the vibrational modes of GeSn semiconductors. Semiconductor Science and Technology, 2020, 35, 095006.	2.0	15
21	Kinetic Control of Morphology and Composition in Ge/GeSn Core/Shell Nanowires. ACS Nano, 2020, 14, 2445-2455.	14.6	17
22	Dislocation Pipe Diffusion and Solute Segregation during the Growth of Metastable GeSn. Crystal Growth and Design, 2020, 20, 3493-3498.	3.0	31
23	(Invited) Probing Semiconductor Heterostructures from the Atomic to the Micrometer Scale. ECS Transactions, 2020, 98, 447-455.	0.5	6
24	Epitaxial GeSn and its integration in MIR Optoelectronics. , 2020, , .		0
25	Vacancy complexes in nonequilibrium germanium-tin semiconductors. Applied Physics Letters, 2019, 114, .	3.3	30
26	Strain engineering in Ge/GeSn core/shell nanowires. Applied Physics Letters, 2019, 115, .	3.3	22
27	Enhanced Sn incorporation in GeSn epitaxial semiconductors via strain relaxation. Journal of Applied Physics, 2019, 125, .	2.5	70
28	Germanium-Tin Semiconductors for Silicon-Compatible Mid-Infrared Photonics. , 2019, , .		0
29	Critical strain for Sn incorporation into spontaneously graded Ge/GeSn core/shell nanowires. Nanoscale, 2018, 10, 7250-7256.	5.6	28
30	TEOS layers for low temperature processing of group IV optoelectronic devices. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2018, 36, 061204.	1.2	2
31	Group IV Nanowires for Carbon-Free Energy Conversion. Semiconductors and Semimetals, 2018, , 151-229.	0.7	2
32	Atomically uniform Sn-rich GeSn semiconductors with 3.0â€“3.5â€‰<i>Î¼</i>m room-temperature optical emission. Applied Physics Letters, 2018, 112, .	3.3	61
33	Growth and Optical Properties of Direct Band Gap Ge/Ge_{0.87}Sn_{0.13} Core/Shell Nanowire Arrays. Nano Letters, 2017, 17, 1538-1544.	9.1	72
34	Atom-by-Atom Analysis of Semiconductor Nanowires with Parts Per Million Sensitivity. Nano Letters, 2017, 17, 599-605.	9.1	35
35	Crystal Phase Quantum Well Emission with Digital Control. Nano Letters, 2017, 17, 6062-6068.	9.1	27
36	Pseudodirect to Direct Compositional Crossover in Wurtzite GaP/In_{<i>x</i>}Ga_{1â€“<i>x</i>}P Coreâ€“Shell Nanowires. Nano Letters, 2016, 16, 7930-7936.	9.1	19

#	Article	IF	Citations
37	High refractive index in wurtzite GaP measured from Fabry-PÃ©rot resonances. Applied Physics Letters, 2016, 108, .	3.3	5
38	Optical study of the band structure of wurtzite GaP nanowires. Journal of Applied Physics, 2016, 120, .	2.5	34
39	Optical Properties of Strained Wurtzite Gallium Phosphide Nanowires. Nano Letters, 2016, 16, 3703-3709.	9.1	40
40	Impurity and Defect Monitoring in Hexagonal Si and SiGe Nanocrystals. ECS Transactions, 2016, 75, 751-760.	0.5	6
41	New opportunities with nanowires. , 2016, , .		0
42	Atomic layer deposition of Pd and Pt nanoparticles for catalysis: on the mechanisms of nanoparticle formation. Nanotechnology, 2016, 27, 034001.	2.6	86
43	Hexagonal Silicon Realized. Nano Letters, 2015, 15, 5855-5860.	9.1	142
44	Efficient water reduction with gallium phosphide nanowires. Nature Communications, 2015, 6, 7824.	12.8	123
45	Cracking the Si Shell Growth in Hexagonal GaP-Si Coreâ€"Shell Nanowires. Nano Letters, 2015, 15, 2974-2979.	9.1	23
46	Exploring Crystal Phase Switching in GaP Nanowires. Nano Letters, 2015, 15, 8062-8069.	9.1	55
47	Direct band gap wurtzite GaP nanowires for LEDs and quantum devices. Proceedings of SPIE, 2014, , .	0.8	0
48	Harnessing nuclear spin polarization fluctuations in a semiconductor nanowire. Nature Physics, 2013, 9, 631-635.	16.7	26
49	Wurtzite Gallium Phosphide has a direct-band gap. , 2013, , .		2
50	Direct Band Gap Wurtzite Gallium Phosphide Nanowires. Nano Letters, 2013, 13, 1559-1563.	9.1	262
51	Unit cell structure of the wurtzite phase of GaP nanowires: X-ray diffraction studies and density functional theory calculations. Physical Review B, 2013, 88, .	3.2	28
52	Semi insulating CdTe:Cl after elimination of inclusions and precipitates by post grown annealing. Journal of Instrumentation, 2012, 7, C11001-C11001.	1.2	4
53	High yield transfer of ordered nanowire arrays into transparent flexible polymer films. Nanotechnology, 2012, 23, 495305.	2.6	21