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	Direct Band Gap Wurtzite Gallium Phosphide Nanowires. Nano Letters, 2013, 13, 1559-1563.	9.1	262
2	Hexagonal Silicon Realized. Nano Letters, 2015, 15, 5855-5860.	9.1	142
3	Efficient water reduction with gallium phosphide nanowires. Nature Communications, 2015, 6, 7824.	12.8	123
4	Atomic layer deposition of Pd and Pt nanoparticles for catalysis: on the mechanisms of nanoparticle formation. Nanotechnology, 2016, 27, 034001.	2.6	86
5	Monolithic infrared silicon photonics: The rise of (Si)GeSn semiconductors. Applied Physics Letters, 2021, 118, .	3.3	80
6	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
7	Enhanced Sn incorporation in GeSn epitaxial semiconductors via strain relaxation. Journal of Applied Physics, 2019, 125, .	2.5	70
8	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
9	Exploring Crystal Phase Switching in GaP Nanowires. Nano Letters, 2015, 15, 8062-8069.	9.1	55
10	Allâ€Group IV Transferable Membrane Midâ€Infrared Photodetectors. Advanced Functional Materials, 2021, 31, 2006329.	14.9	44
11	Optical Properties of Strained Wurtzite Gallium Phosphide Nanowires. Nano Letters, 2016, 16, 3703-3709.	9.1	40
12	Atom-by-Atom Analysis of Semiconductor Nanowires with Parts Per Million Sensitivity. Nano Letters, 2017, 17, 599-605.	9.1	35
13	Optical study of the band structure of wurtzite GaP nanowires. Journal of Applied Physics, 2016, 120, .	2.5	34
14	Dislocation Pipe Diffusion and Solute Segregation during the Growth of Metastable GeSn. Crystal Growth and Design, 2020, 20, 3493-3498.	3.0	31
15	Vacancy complexes in nonequilibrium germanium-tin semiconductors. Applied Physics Letters, 2019, 114, .	3.3	30
16	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
17	Critical strain for Sn incorporation into spontaneously graded Ge/GeSn core/shell nanowires. Nanoscale, 2018, 10, 7250-7256.	5.6	28
18	High-Bandwidth Extended-SWIR GeSn Photodetectors on Silicon Achieving Ultrafast Broadband Spectroscopic Response. ACS Photonics, 2022, 9, 1425-1433.	6.6	28

#	Article	IF	Citations
19	Crystal Phase Quantum Well Emission with Digital Control. Nano Letters, 2017, 17, 6062-6068.	9.1	27
20	Harnessing nuclear spin polarization fluctuations in a semiconductor nanowire. Nature Physics, 2013, 9, 631-635.	16.7	26
21	1D photonic crystal direct bandgap GeSn-on-insulator laser. Applied Physics Letters, 2021, 119, .	3.3	26
22	Cracking the Si Shell Growth in Hexagonal GaP-Si Coreâ€“Shell Nanowires. Nano Letters, 2015, 15, 2974-2979.	9.1	23
23	Strain engineering in Ge/GeSn core/shell nanowires. Applied Physics Letters, 2019, 115, .	3.3	22
24	Enhanced GeSn Microdisk Lasers Directly Released on Si. Advanced Optical Materials, 2022, 10, 2101213.	7.3	22
25	High yield transfer of ordered nanowire arrays into transparent flexible polymer films. Nanotechnology, 2012, 23, 495305.	2.6	21
26	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
27	Kinetic Control of Morphology and Composition in Ge/GeSn Core/Shell Nanowires. ACS Nano, 2020, 14, 2445-2455.	14.6	17
28	Decoupling the effects of composition and strain on the vibrational modes of GeSn semiconductors. Semiconductor Science and Technology, 2020, 35, 095006.	2.0	15
29	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</mm Semiconductors. Physical Review Applied, 2021, 15, .	3.8	15
30	Atomic Pathways of Solute Segregation in the Vicinity of Nanoscale Defects. Nano Letters, 2021, 21, 9882-9888.	9.1	9
31	Extended-SWIR Photodetection in All-Group IV Core/Shell Nanowires. ACS Photonics, 2022, 9, 914-921.	6.6	8
32	Optically pumped low-threshold microdisk lasers on a GeSn-on-insulator substrate with reduced defect density. Photonics Research, 2022, 10, 1332.	7.0	8
33	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
34	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
35	Recrystallization and interdiffusion processes in laser-annealed strain-relaxed metastable Ge0.89Sn0.11. Journal of Applied Physics, 2022, 131, .	2.5	7
36	Impurity and Defect Monitoring in Hexagonal Si and SiGe Nanocrystals. ECS Transactions, 2016, 75, 751-760.	0.5	6

#	Article	IF	Citations
37	(Invited) Probing Semiconductor Heterostructures from the Atomic to the Micrometer Scale. ECS Transactions, 2020, 98, 447-455.	0.5	6
38	A Lightâ€Hole Germanium Quantum Well on Silicon. Advanced Materials, 2022, 34, e2201192.	21.0	6
39	High refractive index in wurtzite GaP measured from Fabry-PÃ©rot resonances. Applied Physics Letters, 2016, 108, .	3.3	5
40	Semi insulating CdTe:Cl after elimination of inclusions and precipitates by post grown annealing. Journal of Instrumentation, 2012, 7, C11001-C11001.	1.2	4
41	Extended Short-Wave Infrared Absorption in Group-IV Nanowire Arrays. Physical Review Applied, 2021, 15, .	3.8	4
42	Wurtzite Gallium Phosphide has a direct-band gap. , 2013, , .		2
43	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
44	Group IV Nanowires for Carbon-Free Energy Conversion. Semiconductors and Semimetals, 2018, , 151-229.	0.7	2
45	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
46	Direct bandgap GeSn nanowires enabled with ultrahigh tension from harnessing intrinsic compressive strain. Applied Physics Letters, 2022, 120, .	3.3	1
47	Direct band gap wurtzite GaP nanowires for LEDs and quantum devices. Proceedings of SPIE, 2014, , .	0.8	0
48	New opportunities with nanowires. , 2016, , .		0
49	GeSn membrane mid-infrared photodetectors. , 2021, , .		0
50	Germanium-Tin Semiconductors for Silicon-Compatible Mid-Infrared Photonics. , 2019, , .		0
51	Epitaxial GeSn and its integration in MIR Optoelectronics. , 2020, , .		0
52	Improved GeSn microdisk lasers directly sitting on Si. , 2022, , .		0
53	1D photonic crystal GeSn-on-insulator nanobeam laser. , 2022, , .		0