

Simona Maria Cristina Boninelli

List of Publications by Year in descending order

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69
papers

2,528
citations

257450

24
h-index

189892

50
g-index

70
all docs

70
docs citations

70
times ranked

3109
citing authors

#	ARTICLE	IF	CITATIONS
1	Formation and evolution of luminescent Si nanoclusters produced by thermal annealing of SiO _x films. <i>Journal of Applied Physics</i> , 2004, 95, 3723-3732.	2.5	303
2	CdSe/CdS/ZnS Double Shell Nanorods with High Photoluminescence Efficiency and Their Exploitation As Biolabeling Probes. <i>Journal of the American Chemical Society</i> , 2009, 131, 2948-2958.	13.7	247
3	Role of the interface region on the optoelectronic properties of silicon nanocrystals embedded in SiO ₂ . <i>Physical Review B</i> , 2003, 68, .	3.2	235
4	Stability of solution-processed MAPbI ₃ and FAPbI ₃ layers. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 13413-13422.	2.8	208
5	Sensitizing properties of amorphous Si clusters on the 1.54- μ m luminescence of Er in Si-rich SiO ₂ . <i>Applied Physics Letters</i> , 2003, 82, 3871-3873.	3.3	156
6	Torsional and Cyclic Fatigue Resistance of a New Nickel-Titanium Instrument Manufactured by Electrical Discharge Machining. <i>Journal of Endodontics</i> , 2016, 42, 156-159.	3.1	152
7	Photocatalytic and antibacterial activity of TiO ₂ nanoparticles obtained by laser ablation in water. <i>Applied Catalysis B: Environmental</i> , 2015, 165, 487-494.	20.2	109
8	Fluorine effect on As diffusion in Ge. <i>Journal of Applied Physics</i> , 2011, 109, .	2.5	73
9	Room temperature all-silicon photonic crystal nanocavity light emitting diode at sub-bandgap wavelengths. <i>Laser and Photonics Reviews</i> , 2013, 7, 114-121.	8.7	67
10	Quantum confinement and electroluminescence in ultrathin silicon nanowires fabricated by a maskless etching technique. <i>Nanotechnology</i> , 2012, 23, 075204.	2.6	66
11	Influence of cyclic torsional preloading on cyclic fatigue resistance of nickel-titanium instruments. <i>International Endodontic Journal</i> , 2015, 48, 1043-1050.	5.0	59
12	N-type doping of Ge by As implantation and excimer laser annealing. <i>Journal of Applied Physics</i> , 2014, 115, .	2.5	57
13	Advanced activation of ultra-shallow junctions using flash-assisted RTP. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2005, 124-125, 24-31.	3.5	53
14	Mechanism of Boron Diffusion in Amorphous Silicon. <i>Physical Review Letters</i> , 2008, 100, 155901.	7.8	44
15	Optimized Laser Thermal Annealing on Germanium for High Dopant Activation and Low Leakage Current. <i>IEEE Transactions on Electron Devices</i> , 2014, 61, 4047-4055.	3.0	39
16	Microstructural evolution of SiO _x films and its effect on the luminescence of Si nanoclusters. <i>Journal of Applied Physics</i> , 2008, 104, 094306.	2.5	38
17	Evolution of boron-interstitial clusters in crystalline Si studied by transmission electron microscopy. <i>Applied Physics Letters</i> , 2007, 91, 031905.	3.3	37
18	B-doping in Ge by excimer laser annealing. <i>Journal of Applied Physics</i> , 2013, 113, .	2.5	37

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19	Nanoscale amorphization, bending and recrystallization in silicon nanowires. Applied Physics A: Materials Science and Processing, 2011, 102, 13-19.	2.3	33
20	Transient enhanced diffusion of B mediated by self-interstitials in preamorphized Ge. Applied Physics Letters, 2010, 96, .	3.3	31
21	Eu ³⁺ reduction and efficient light emission in Eu ₂ O ₃ films deposited on Si substrates. Optics Express, 2012, 20, 5501.	3.4	30
22	Formation, evolution and photoluminescence properties of Si nanoclusters. Journal of Physics Condensed Matter, 2007, 19, 225003.	1.8	29
23	Evidences of an intermediate rodlike defect during the transformation of {113} defects into dislocation loops. Applied Physics Letters, 2006, 89, 161904.	3.3	25
24	Rotational dynamics of gold nanoparticle chains in water solution. Journal of Nanoparticle Research, 2012, 14, 1.	1.9	25
25	Correlation between electroluminescence and structural properties of Si nanoclusters. Optical Materials, 2005, 27, 1031-1040.	3.6	24
26	Kinetics of large B clusters in crystalline and preamorphized silicon. Journal of Applied Physics, 2011, 110, .	2.5	22
27	Anomalous transport of Sb in laser irradiated Ge. Applied Physics Letters, 2012, 101, 172110.	3.3	22
28	Evidences of F-induced nanobubbles as sink for self-interstitials in Si. Applied Physics Letters, 2006, 89, 171916.	3.3	21
29	New strategies to improve the luminescence efficiency of Eu ions embedded in Si-based matrices. Journal of Applied Physics, 2013, 113, .	2.5	21
30	Formation and evolution of F nanobubbles in amorphous and crystalline Si. Applied Physics Letters, 2008, 93, 061906.	3.3	18
31	Heteroepitaxial Growth and Faceting of Ge Nanowires on Si(111) by Electron-Beam Evaporation. Electrochemical and Solid-State Letters, 2010, 13, K53.	2.2	18
32	Aluminium Implantation in Germanium: Uphill Diffusion, Electrical Activation, and Trapping. Applied Physics Express, 2012, 5, 021301.	2.4	16
33	Fluorine in Ge: Segregation and EOR-defects stabilization. Nuclear Instruments & Methods in Physics Research B, 2012, 282, 21-24.	1.4	16
34	Continuous-wave laser annealing of Si-rich oxide: A microscopic picture of macroscopic Si ₃ N ₄ /SiO ₂ phase separation. Journal of Applied Physics, 2010, 108, .	2.5	15
35	Role of oxygen on the electrical activation of B in Ge by excimer laser annealing. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 122-125.	1.8	13
36	Er doped Si nanostructures. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2003, 105, 197-204.	3.5	12

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37	Defects evolution and dopant activation anomalies in ion implanted silicon. Nuclear Instruments & Methods in Physics Research B, 2006, 253, 68-79.	1.4	12
38	Role of F on the Electrical Activation of As in Ge. ECS Journal of Solid State Science and Technology, 2012, 1, Q44-Q46.	1.8	12
39	Self-Interstitials Injection in crystalline Ge induced by GeO ₂ nanoclusters. Physical Review B, 2011, 84, .	3.2	11
40	Role of the Ge surface during the end of range dissolution. Applied Physics Letters, 2012, 101, .	3.3	11
41	Thermal evolution and photoluminescence properties of nanometric Si layers. Nanotechnology, 2005, 16, 3012-3016.	2.6	10
42	Formation and incorporation of SiF ₄ molecules in F-implanted preamorphized Si. Applied Physics Letters, 2009, 95, 101908.	3.3	10
43	Structural and luminescence properties of undoped and Eu-doped SiOC thin films. IOP Conference Series: Materials Science and Engineering, 2014, 56, 012009.	0.6	9
44	Transformation of {113} defects into dislocation loops mediated by the {111} rod-like defects. Nuclear Instruments & Methods in Physics Research B, 2006, 253, 80-84.	1.4	7
45	Effect of fluorine on the activation and diffusion behavior of boron implanted preamorphized silicon. Journal of Vacuum Science & Technology B, 2006, 24, 437.	1.3	7
46	Hydrogen induced optically-active defects in silicon photonic nanocavities. Optics Express, 2014, 22, 8843.	3.4	7
47	Role of ion mass on damage accumulation during ion implantation in Ge. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 118-121.	1.8	7
48	Visible and infrared emission from Si/Ge nanowires synthesized by metal-assisted wet etching. Nanoscale Research Letters, 2014, 9, 74.	5.7	7
49	Investigation of fluorine three-dimensional redistribution during solid-phase-epitaxial "regrowth of amorphous Si. Applied Physics Letters, 2012, 101, 103113.	3.3	6
50	Erbium "oxygen interactions in crystalline silicon. Semiconductor Science and Technology, 2011, 26, 055002.	2.0	5
51	Formation of silicon nanocrystal chains induced via Rayleigh instability in ultrathin Si/SiO ₂ core/shell nanowires synthesized by an inductively coupled plasma torch process. JPhys Materials, 2019, 2, 015001.	4.2	5
52	Synthesis and characterization of light emitting Eu ₂ O ₃ films on Si substrates. Journal of Luminescence, 2012, 132, 3133-3135.	3.1	4
53	Structural and optical properties of solid-state synthesized Au dendritic structures. Applied Surface Science, 2014, 296, 177-184.	6.1	4
54	Silica nanowire "Au nanoparticle pea-podded composites: Synthesis and structural analyses. Thin Solid Films, 2015, 589, 755-763.	1.8	4

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55	Influence of F ⁺ Co-Implants on EOR Defect Formation in B ⁺ -Implanted, Ultrashallow Junctions. <i>Electrochemical and Solid-State Letters</i> , 2007, 10, H264.	2.2	3
56	Heteroepitaxial Growth of Ge Nanowires on Si Substrates. <i>International Journal of Photoenergy</i> , 2012, 2012, 1-5.	2.5	3
57	Surface fingerprints of individual silicon nanocrystals in laser-annealed Si/SiO ₂ superlattice: Evidence of nanoeruptions of laser-pressurized silicon. <i>Journal of Applied Physics</i> , 2012, 111, 124302.	2.5	3
58	High-temperature nitrogen annealing induced bonding states and photoluminescence changes in inductively coupled plasma torch synthesized silicon nanostructures. <i>Journal of Applied Physics</i> , 2020, 128, .	2.5	3
59	Structural properties of Si nanoclusters produced by thermal annealing of SiO _x films. <i>Materials Research Society Symposia Proceedings</i> , 2004, 817, 118.	0.1	2
60	Enhanced light scattering in Si nanostructures produced by pulsed laser irradiation. <i>Applied Physics Letters</i> , 2013, 103, 221902.	3.3	2
61	Structural properties of Si nanocrystals: implications for light emitting devices fabrication. , 2008, , .		1
62	Defect evolution and C ⁺ /F ⁺ co-implantation in millisecond Flash annealed ultra-shallow junctions. , 2008, , .		1
63	Microscopic investigations of advanced thin films for photonics. <i>Journal of Physics: Conference Series</i> , 2013, 471, 012004.	0.4	0
64	(Invited) Challenges and Opportunities for Doping Control in Ge for Micro and Optoelectronics Applications. <i>ECS Transactions</i> , 2013, 50, 89-103.	0.5	0
65	Room temperature electrically pumped silicon nano-light source at telecommunication wavelengths. <i>Proceedings of SPIE</i> , 2013, , .	0.8	0
66	Silicon photonic crystals: light emission, modulation and detection. , 2014, , .		0
67	(Invited) Advances in Silicon Nanophotonics. <i>ECS Transactions</i> , 2014, 61, 149-159.	0.5	0
68	New strategies to improve Eu light emission in Si-based matrices. <i>Proceedings of SPIE</i> , 2014, , .	0.8	0
69	Nanoscale silicon in photonics and photovoltaics. <i>Series in Materials Science and Engineering</i> , 2017, , 593-616.	0.1	0