Paolo Pellegrino

List of Publications by Year
in descending order

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65 papers	1,643 citations	257101 24 h-index	288905 40 g-index
66 all docs	66 docs citations	66 times ranked	1406 citing authors

#	Article	IF	Citations
1	Size dependence of lifetime and absorption cross section of Si nanocrystals embedded in SiO2. Applied Physics Letters, 2003, 82, 1595-1597.	1.5	139
2	Elucidation of the surface passivation role on the photoluminescence emission yield of silicon nanocrystals embedded in SiO2. Applied Physics Letters, 2002, 80, 1637-1639.	1.5	117
3	Excitable Er fraction and quenching phenomena in Er-dopedSiO2layers containing Si nanoclusters. Physical Review B, 2007, 76, .	1.1	91
4	Annealing kinetics of vacancy-related defects in low-dose MeV self-ion-implantedn-type silicon. Physical Review B, 2001, 64, .	1.1	85
5	Absorption cross section and signal enhancement in Er-doped Si nanocluster rib-loaded waveguides. Applied Physics Letters, 2005, 86, 261103.	1.5	80
6	Linear and nonlinear optical properties of Si nanocrystals in SiO2 deposited by plasma-enhanced chemical-vapor deposition. Journal of Applied Physics, 2008, 103, .	1.1	78
7	White luminescence from Si+ and C+ ion-implanted SiO2 films. Journal of Applied Physics, 2003, 94, 254-262.	1.1	74
8	Silicon nanocluster crystallization in SiOx films studied by Raman scattering. Journal of Applied Physics, 2008, 104, .	1.1	71
9	Electrically active point defects in n-type 4Hâ€“SiC. Journal of Applied Physics, 1998, 84, 1354-1357.	1.1	69
10	Site of Er ions in silica layers codoped with Si nanoclusters and Er. Applied Physics Letters, 2006, 88, 121915.	1.5	68
11	Optical and electrical properties of Si-nanocrystals ion beam synthesized in SiO2. Nuclear Instruments & Methods in Physics Research B, 2004, 216, 213-221.	0.6	54
12	Distance dependent interaction as the limiting factor for Si nanocluster to Er energy transfer in silica. Applied Physics Letters, 2006, 89, 163103.	1.5	54
13	Gas sensors based on individual indium oxide nanowire. Sensors and Actuators B: Chemical, 2017, 238, 447-454.	4.0	44
14	Er-Coupled Si Nanocluster Waveguide. IEEE Journal of Selected Topics in Quantum Electronics, 2006, 12, 1607-1617.	1.9	42
15	Low-loss rib waveguides containing Si nanocrystals embedded in SiO2. Journal of Applied Physics, 2005, 97, 074312.	1.1	40
16	The energy band alignment of Si nanocrystals in SiO2. Applied Physics Letters, 2011, 99, .	1.5	37
17	Scaling size of the interplay between quantum confinement and surface related effects in nanostructured silicon. Applied Physics Letters, 2013, 103, .	1.5	33
18	Separation of vacancy and interstitial depth profiles in ion-implanted silicon: Experimental observation. Applied Physics Letters, 2001, 78, 3442-3444.	1.5	32

#	Article	IF	Citations
19	Size dependence of refractive index of Si nanoclusters embedded in SiO2. Journal of Applied Physics, 2005, 98, 013523.	1.1	32
20	Hydrogen-related defect centers in float-zone and epitaxial n-type proton implanted silicon. Nuclear Instruments & Methods in Physics Research B, 2001, 174, 297-303.	0.6	31
21	Optical losses and gain in silicon-rich silica waveguides containing Er ions. Journal of Luminescence, 2006, 121, 249-255.	1.5	30
22	Time-resolved analysis of the white photoluminescence from SiO2 films after Si and C coimplantation. Applied Physics Letters, 2004, 84, 25-27.	1.5	29
23	Blue luminescence at room temperature in defective MgO films. Solid State Communications, 2011, 151, 751-753.	0.9	28
24	Enhancement of the emission yield of silicon nanocrystals in silica due to surface passivation. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 16, 424-428.	1.3	24
25	Vacancy and interstitial depth profiles in ion-implanted silicon. Journal of Applied Physics, 2003, 93, 871-877.	1.1	22
26	White electroluminescence from C- and Si-rich thin silicon oxides. Applied Physics Letters, 2006, 89, 253124.	1.5	21
27	Structural and optical properties of dilute InAsN grown by molecular beam epitaxy. Journal of Applied Physics, 2010, 108, .	1.1	20
28	Optical-geometrical effects on the photoluminescence spectra of Si nanocrystals embedded in SiO2. Journal of Applied Physics, 2005, 98, 084319.	1.1	16
29	Dose-rate influence on the defect production in MeV proton-implanted float-zone and epitaxial n-type silicon. Nuclear Instruments & Methods in Physics Research B, 2002, 186, 375-379.	0.6	14
30	Silicon-rich oxynitride hosts for 1.5Î¼m Er3+ emission fabricated by reactive and standard RF magnetron sputtering. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2012, 177, 725-728.	1.7	14
31	Absorption cross-sections and lifetimes as a function of size in Si nanocrystals embedded in SiO2. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 16, 429-433.	1.3	13
32	Signal Enhancement and Limiting Factors in Waveguides Containing Si Nanoclusters and Er3+Ions. Japanese Journal of Applied Physics, 2007, 46, 6626-6633.	0.8	11
33	Reverse annealing effects in heavy ion implanted silicon. Nuclear Instruments & Methods in Physics Research B, 1999, 148, 306-310.	0.6	10
34	Comparative study of Si precipitation in silicon-rich oxide films. Physica E: Low-Dimensional Systems and Nanostructures, 2009, 41, 990-993.	1.3	9
35	Comparative study of the nonlinear optical properties of Si nanocrystals fabricated by eâ€beam evaporation, PECVD or LPCVD. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 969-973.	0.8	9
36	Tailoring the surface density of silicon nanocrystals embedded in SiOx single layers. Journal of Applied Physics, 2013, 114, 233101.	1.1	9

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37	Effect of the annealing treatments on the electroluminescence efficiency of SiO₂ layers doped with Si and Er. Journal Physics D: Applied Physics, 2012, 45, 045103.	1.3	8
38	Maximum fraction of Er3+ ions optically pumped through Si nanoclusters. Journal of Luminescence, 2006, 121, 204-208.	1.5	7
39	Nitrogen passivation by implantation-induced point defects in 4Hâ€“SiC epitaxial layers. Applied Surface Science, 2001, 184, 263-267.	3.1	6
40	Luminescent properties of Er and Si co-implanted silicates. Optical Materials, 2005, 27, 910-914.	1.7	6
41	Gas Nanosensors Based on Individual Indium Oxide Nanostructures. Procedia Engineering, 2015, 120, 795-798.	1.2	6
42	Separation of vacancy and interstitial depth profiles in proton- and boron-implanted silicon. Nuclear Instruments & Methods in Physics Research B, 2002, 186, 334-338.	0.6	5
43	Charge transport along luminescent oxide layers containing Si and SiC nanoparticles. Journal of Luminescence, 2006, 121, 356-360.	1.5	5
44	Two-photon absorption in Si-nanocrystals deposited by plasma-enhanced chemical-vapor deposition. Physica E: Low-Dimensional Systems and Nanostructures, 2009, 41, 1002-1005.	1.3	5
45	Efficient energy transfer from Si clusters to Er3+ in complex silicate glasses. Journal of Applied Physics, 2006, 100, 073103.	1.1	4
46	Optical nonlinearities in Si-nanocrystals at 1064 nm excited by nanosecond-pulses. Journal of Applied Physics, 2010, 108, .	1.1	4
47	High Q light-emitting Si-rich Si_3N_4 microdisks. Optics Letters, 2011, 36, 1344.	1.7	4
48	Si nanoclusters coupled to Er3+ ions in a SiO2 matrix for optical amplifiers. Optical Materials, 2011, 33, 1086-1090.	1.7	4
49	Fabrication of well-ordered arrays of silicon nanocrystals using a block copolymer mask. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 1477-1484.	0.8	4
50	Impurity-assisted annealing of point defect complexes in ion- implanted silicon. Physica B: Condensed Matter, 1999, 273-274, 489-492.	1.3	3
51	Anomalous field dependence of deep level emission in proton irradiated silicon. Nuclear Instruments & Methods in Physics Research B, 1999, 147, 427-431.	0.6	3
52	Non linear optical properties of Silicon nanocrystals for applications in photonic logic gates devices.. , 2008, , .		3
53	Optical amplification studies in Si nanocrystals-based waveguides prepared by ion-beam synthesis. Physica E: Low-Dimensional Systems and Nanostructures, 2009, 41, 1044-1047.	1.3	3
54	Visible Light Emitting Si-Rich Si$_{3}$N$_{4} mu$-Disk Resonators for Sensoristic Applications. Journal of Lightwave Technology, 2012, 30, 169-174.	2.7	3

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55	Fabrication, Characterization and Performance of Low Power Gas Sensors Based on (GaxIn1-x)2O3ÂNanowires. Sensors, 2021, 21, 3342.	2.1	3
56	Nonlinear Optical Properties of Si Nanocrystals. Materials Research Society Symposia Proceedings, 2006, 958, 1.	0.1	2
57	High quality coupled ring resonators based on silicon clusters slot waveguide. , 2008, , .		2
58	Response to â€œComment on â€˜Separation of vacancy and interstitial depth profiles in ion-implanted silicon: Experimental observationâ€™â€Šâ€•[Appl. Phys. Lett. 80, 1492 (2002)]. Applied Physics Letters, 2002, 80, 1494-1495.	1.5	1
59	Optically active substoichiometric Si3N4 Î¼-cavities. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 1060-1065.	0.8	1
60	Gas Sensors Based on Individual (Ga, In)2O3 Nanowires. Proceedings (mdpi), 2017, 1, 321.	0.2	1
61	Microstructure and emission properties of Si nanograins and Er-doped silica films obtained by reactive magnetron co-sputtering. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2003, 105, 221-225.	1.7	0
62	Comparative study of the strength of Er indirect optical pumping in silicate glasses codoped with Si clusters and Er3+ions. , 2006, 6183, 204.		0
63	Signal enhancement in Er³⁺coupled to Si nanoclusters rib-waveguides. Proceedings of SPIE, 2007, , .	0.8	0
64	Non-linear optical properties of PECVD Si-nc under nanosecond excitation. , 2007, , .		0
65	Electroluminescence from C- and Si- rich silicon oxides in continuous wave and pulsed excitation. , 2007, , .		0