

Roberto Lo Savio

List of Publications by Year in descending order

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44
papers

1,050
citations

394286

19
h-index

395590

33
g-index

44
all docs

44
docs citations

44
times ranked

1132
citing authors

#	ARTICLE	IF	CITATIONS
1	Efficient Luminescence and Energy Transfer in Erbium Silicate Thin Films. <i>Advanced Materials</i> , 2007, 19, 1582-1588.	11.1	124
2	Optical and structural properties of Er ₂ O ₃ films grown by magnetron sputtering. <i>Journal of Applied Physics</i> , 2006, 100, 013502.	1.1	102
3	Light absorption in silicon quantum dots embedded in silica. <i>Journal of Applied Physics</i> , 2009, 106, .	1.1	90
4	Room temperature all-silicon photonic crystal nanocavity light emitting diode at sub-bandgap wavelengths. <i>Laser and Photonics Reviews</i> , 2013, 7, 114-121.	4.4	67
5	Direct evidence of light confinement and emission enhancement in active silicon-on-insulator slot waveguides. <i>Applied Physics Letters</i> , 2006, 89, 241114.	1.5	62
6	Room-temperature emission at telecom wavelengths from silicon photonic crystal nanocavities. <i>Applied Physics Letters</i> , 2011, 98, 201106.	1.5	60
7	The role of the surfaces in the photon absorption in Ge nanoclusters embedded in silica. <i>Nanoscale Research Letters</i> , 2011, 6, 135.	3.1	52
8	The influence of stoichiometry on the structural stability and on the optical emission of erbium silicate thin films. <i>Applied Physics Letters</i> , 2008, 93, 021919.	1.5	41
9	Energy transfer and enhanced 154 nm emission in Erbium-Ytterbium disilicate thin films. <i>Optics Express</i> , 2011, 19, 20761.	1.7	39
10	Microstructural evolution of SiO _x films and its effect on the luminescence of Si nanoclusters. <i>Journal of Applied Physics</i> , 2008, 104, 094306.	1.1	38
11	Enhanced down conversion of photons emitted by photoexcited Er^{3+} ions in silicon nanoclusters. <i>Physical Review B</i> , 2010, 81, .	1.1	36
12	Influence of the matrix properties on the performances of Er-doped Si nanoclusters light emitting devices. <i>Journal of Applied Physics</i> , 2010, 107, 054302.	1.1	33
13	Concentration dependence of the Er ³⁺ visible and infrared luminescence in Y _{2-x} Er _x O ₃ thin films on Si. <i>Journal of Applied Physics</i> , 2009, 106, 043512.	1.1	30
14	Modification of erbium radiative lifetime in planar silicon slot waveguides. <i>Applied Physics Letters</i> , 2009, 94, .	1.5	28
15	Simultaneous Electro-Optical Tracking for Nanoparticle Recognition and Counting. <i>Nano Letters</i> , 2015, 15, 5696-5701.	4.5	28
16	Plastic ingestion in aquatic-associated bird species in southern Portugal. <i>Marine Pollution Bulletin</i> , 2018, 126, 413-418.	2.3	27
17	A baseline assessment of beach macrolitter and microplastics along northeastern Atlantic shores. <i>Marine Pollution Bulletin</i> , 2019, 149, 110649.	2.3	22
18	Enhanced 154 nm emission in Y-Er disilicate thin films on silicon photonic crystal cavities. <i>Optics Express</i> , 2013, 21, 10278.	1.7	21

#	ARTICLE	IF	CITATIONS
19	Gas permeation through rubbery polymer nano-corrugated membranes. Scientific Reports, 2018, 8, 6345.	1.6	19
20	Enhancement of room temperature sub-bandgap light emission from silicon photonic crystal nanocavity by Purcell effect. Physica B: Condensed Matter, 2012, 407, 4027-4031.	1.3	17
21	The influence of substrate on the properties of Er ₂ O ₃ films grown by magnetron sputtering. Journal of Luminescence, 2006, 121, 233-237.	1.5	16
22	Thermal evolution of Er silicate thin films grown by rf magnetron sputtering. Journal of Physics Condensed Matter, 2008, 20, 454218.	0.7	13
23	Electrical conduction and optical properties of doped silicon-on-insulator photonic crystals. Applied Physics Letters, 2011, 98, 203506.	1.5	12
24	Photonic crystal light emitting diode based on Er and Si nanoclusters co-doped slot waveguide. Applied Physics Letters, 2014, 104, .	1.5	12
25	Light absorption and electrical transport in Si:O alloys for photovoltaics. Journal of Applied Physics, 2010, 108, .	1.1	9
26	Spectroscopic and structural properties of polycrystalline Y ₂ Si ₂ O ₇ doped with Er ³⁺ . Journal of Luminescence, 2016, 170, 614-618.	1.5	9
27	Er-based materials for Si microphotronics. Optical Materials, 2009, 31, 1269-1274.	1.7	8
28	Role of substrate morphology in ion induced dewetting of thin solid films. Applied Surface Science, 2014, 315, 432-439.	3.1	8
29	Synthesis and luminescence properties of erbium silicate thin films. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2008, 146, 29-34.	1.7	7
30	Hydrogen induced optically-active defects in silicon photonic nanocavities. Optics Express, 2014, 22, 8843.	1.7	7
31	Geometrical Engineering of Giant Optical Dichroism in Rippled MoS ₂ Nanosheets. Advanced Optical Materials, 2021, 9, 2001408.	3.6	6
32	New approaches for enhancing light emission from Er-based materials and devices. Physica E: Low-Dimensional Systems and Nanostructures, 2009, 41, 891-898.	1.3	3
33	Structural properties of Si nanocrystals: implications for light emitting devices fabrication. , 2008, , .		1
34	Theoretical and experimental investigation of radiative decay rates in active slot waveguides. Journal of Optics, 2009, 11, 114011.	1.5	1
35	Nonlinear optics in Silicon photonic crystal cavities. , 2011, , .		1
36	Optical properties of silicon rich oxides. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 996-1001.	0.8	1

#	ARTICLE	IF	CITATIONS
37	Enhanced Light Emission in Active Silicon-on-Insulator Photonic Crystal Slabs and Slot Waveguides. , 2007, , .		0
38	Influence of stoichiometry on the structural and optical properties of erbium silicate. , 2008, , .		0
39	Er ³⁺ excitation and up-conversion processes in Y ₂ Er _x Si ₂ O ₇ films for planar optical amplifiers. , 2009, , .		0
40	Electrical and optical properties of ion implanted SOI-based photonic crystals. , 2011, , .		0
41	Light generation in silicon photonic crystal cavities. , 2011, , .		0
42	Subbandgap photoluminescence of Si photonic crystal nanocavity at room temperature. , 2011, , .		0
43	Photoluminescence spectroscopy of silicon photonic crystal nanocavities. , 2011, , .		0
44	Room temperature electrically pumped silicon nano-light source at telecommunication wavelengths. Proceedings of SPIE, 2013, , .	0.8	0