KateÅina HerynkovÃ¡

List of Publications by Year
in descending order

55 papers	886 citations	567281 15 h-index	477307 29 g-index
55 all docs	55 docs citations	55 times ranked	705 citing authors

#	Article	IF	Citations
1	Hydrophilic Luminescent Silicon Nanoparticles in Steric Colloidal Solutions: Their Size, Agglomeration, and Toxicity. Physica Status Solidi C: Current Topics in Solid State Physics, 2017, 14, 1700195.	0.8	0
2	Stabilization of silicon nanoparticles in colloidal solutions. Physica Status Solidi C: Current Topics in Solid State Physics, 2016, 13, 142-145.	0.8	7
3	Agglomeration of Luminescent Porous Silicon Nanoparticles in Colloidal Solutions. Nanoscale Research Letters, 2016, 11, 367.	5.7	7
4	Comparison of Silicon Nanocrystals Prepared by Two Fundamentally Different Methods. Nanoscale Research Letters, 2016, 11, 445.	5.7	1
5	Structural and luminescence properties of silicon nanocrystals in colloidal solutions for bio applications. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 2873-2878.	1.8	2
6	Colloidal solutions of luminescent porous silicon clusters with different cluster sizes. Nanoscale Research Letters, 2014, 9, 478.	5.7	10
7	A complex study of the fast blue luminescence of oxidized silicon nanocrystals: the role of the core. Nanoscale, 2014, 6, 3837.	5.6	38
8	Two-dimensional photonic crystal slab with embedded silicon nanocrystals: Efficient photoluminescence extraction. Applied Physics Letters, 2013, 102, .	3.3	10
9	Luminescence of free-standing versus matrix-embedded oxide-passivated silicon nanocrystals: The role of matrix-induced strain. Applied Physics Letters, 2012, 101, .	3.3	61
10	Porous silicon grains in SiO2 matrix: Ultrafast photoluminescence and optical gain. Journal of Non-Crystalline Solids, 2006, 352, 3041-3046.	3.1	9
11	Waveguide cores containing silicon nanocrystals as active spectral filters for silicon-based photonics. Applied Physics B: Lasers and Optics, 2006, 83, 87-91.	2.2	15
12	Active planar optical waveguides with silicon nanocrystals: Leaky modes under different ambient conditions. Journal of Applied Physics, 2006, 100, 074307.	2.5	6
13	Photoluminescence from an active planar optical waveguide made of silicon nanocrystals: dominance of leaky substrate modes in dissipative structures. Optical Materials, 2005, 27, 781-786.	3.6	10
14	Optical gain in nanocrystalline silicon: comparison of planar waveguide geometry with a non-waveguiding ensemble of nanocrystals. Optical Materials, 2005, 27, 750-755.	3.6	22
15	Stimulated emission in the active planar optical waveguide made of silicon nanocrystals. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 3429-3434.	0.8	5
16	Optical gain in porous silicon grains embedded in sol-gel derived SiO2 matrix under femtosecond excitation. Applied Physics Letters, 2004, 84, 3280-3282.	3.3	76
17	Grains of Porous Silicon Embedded in SiO₂:Studies of Optical Gain and Electroluminescence. Solid State Phenomena, 2004, 99-100, 31-36.	0.3	1
18	Thin silicon films deposited at low substrate temperatures studied by surface photovoltage technique. Thin Solid Films, 2004, 451-452, 408-412.	1.8	0

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19	The physics and technological aspects of the transition from amorphous to microcrystalline and polycrystalline silicon. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 1097-1114.	0.8	26
20	Formation of microcrystalline silicon at low temperatures and role of hydrogen. Journal of Non-Crystalline Solids, 2004, 338-340, 287-290.	3.1	7
21	Silicon thin films deposited at very low substrate temperatures. Thin Solid Films, 2003, 442, 163-166.	1.8	5
22	Basic features of transport in microcrystalline silicon. Solar Energy Materials and Solar Cells, 2003, 78, 493-512.	6.2	63
23	Optical Gain Measurements With Variable Stripe Length Technique. , 2003, , 223-242.		11
24	Active planar optical waveguide made from luminescent silicon nanocrystals. Applied Physics Letters, 2003, 82, 955-957.	3.3	27
25	Structure and Properties of Silicon Thin Films Deposited at Low Substrate Temperatures. Japanese Journal of Applied Physics, 2003, 42, L987-L989.	1.5	8
26	Stimulated emission in blue-emitting Si+-implanted SiO2 films?. Journal of Applied Physics, 2002, 91, 2896-2900.	2.5	59
27	Role of grains in protocrystalline silicon layers grown at very low substrate temperatures and studied by atomic force microscopy. Journal of Non-Crystalline Solids, 2002, 299-302, 767-771.	3.1	29
28	Ultrafast carrier dynamics in CdSe nanocrystalline films on crystalline silicon substrate. Thin Solid Films, 2002, 403-404, 462-466.	1.8	3
29	Electric-field-enhanced metal-induced crystallization of hydrogenated amorphous silicon at room temperature. Applied Physics A: Materials Science and Processing, 2002, 74, 557-560.	2.3	17
30	<title>Silicon-based light-emitting materials: implanted SiO2 films and wide-bandgap a-Si:H</title>. , 2001, , .		0
31	Room temperature electric field induced crystallization of wide band gap hydrogenated amorphous silicon. Thin Solid Films, 2001, 383, 101-103.	1.8	7
32	Charge transport in microcrystalline Si â€" the specific features. Solar Energy Materials and Solar Cells, 2001, 66, 61-71.	6.2	20
33	Electroluminescence from Sol-Gel Derived Film of CdS Nanocrystals. Physica Status Solidi A, 2001, 184, R1-R3.	1.7	3
34	Amorphous/microcrystalline silicon superlatticesâ€"the chance to control isotropy and other transport properties. Applied Physics Letters, 2001, 79, 2540-2542.	3.3	18
35	Visible photoluminescence and electroluminescence in wide-bandgap hydrogenated amorphous silicon. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2000, 80, 1811-1832.	0.6	12
36	Optical properties of Si+-ion implanted solâ€"gel derived SiO2 films. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2000, 69-70, 564-569.	3.5	8

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37	Wide Gap Hydrogenated Amorphous Silicon for Visible Light Emission. Journal of Porous Materials, 2000, 7, 135-138.	2.6	6
38	Red electroluminescence in Si+-implanted solâ€“gel-derived SiO2 films. Applied Physics Letters, 2000, 77, 2952-2954.	3.3	21
39	Light emitting wide band gap a-Si:H deposited by microwave electron cyclotron resonance plasma-enhanced chemical vapour deposition. Journal of Non-Crystalline Solids, 2000, 266-269, 583-587.	3.1	2
40	Silicon-based materials for optoelectronics: visible photoluminescence and electroluminescence from amorphous silicon. , 1999, , .		0
41	Visible photoluminescence in hydrogenated amorphous silicon grown in microwave plasma from SiH4 strongly diluted with He. Journal of Applied Physics, 1999, 86, 1415-1419.	2.5	10
42	Light amplification due to free and localized exciton states in ZnCdSe GRINSCH structures. Applied Physics A: Materials Science and Processing, 1998, 67, 121-124.	2.3	1
43	Photoluminescence and Electroluminescence of Wide-Gap Amorphous Hydrogenated Silicon Prepared under High Dilution with He. Physica Status Solidi A, 1998, 165, 25-29.	1.7	9
44	Optical gain of CdS quantum dots embedded in 3D photonic crystals. Thin Solid Films, 1998, 318, 93-95.	1.8	12
45	Determination of light amplification processes in MOCVD grown ZnCdSe GRINSCH structures. Thin Solid Films, 1998, 336, 326-331.	1.8	0
46	Hydrogenated amorphous silicon deposited by glow discharge of SiH4 diluted with He: photoluminescence and electroluminescence in the visible region. Journal of Non-Crystalline Solids, 1998, 227-230, 254-258.	3.1	3
47	Electroluminescent properties of a-SiOx:H alloys. Journal of Non-Crystalline Solids, 1998, 227-230, 1160-1163.	3.1	1
48	Response to â€œComment on â€˜Enhancement of the optical gain of semiconductors embedded in three-dimensional photonic crystalsâ€™â€‰â€•[Appl. Phys. Lett. 73, 550 (1997)]. Applied Physics Letters, 1998, 73, 552-552.	3.3	0
49	Optical gain and lasing in a semiconductor embedded in a three-dimensional photonic crystal. Journal of Crystal Growth, 1998, 184-185, 650-653.	1.5	1
50	Blue Electroluminescence from an SiO2 Film Highly Implanted with Si+ Ions. Physica Status Solidi A, 1998, 167, R5-R6.	1.7	0
51	Enhancement of optical gain of semiconductors embedded in three-dimensional photonic crystals. Applied Physics Letters, 1997, 71, 1616-1618.	3.3	180
52	Short-term degradation of porous silicon light-emitting diodes. Journal of Luminescence, 1997, 72-74, 992-993.	3.1	0
53	Charge transport in porous silicon: considerations for achievement of efficient electroluminescence. Thin Solid Films, 1996, 276, 187-190.	1.8	21
54	Instabilities in electroluminescent porous silicon diodes. Applied Physics Letters, 1996, 69, 833-835.	3.3	15

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55	GUIDING AND AMPLIFICATION OF LIGHT DUE TO SILICON NANOCRYSTALS EMBEDDED IN WAVEGUIDES. , 0, , 267-296.		1