

Kateřina Herynkovř;

List of Publications by Year in descending order

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55
papers

886
citations

567281

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477307

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55
all docs

55
docs citations

55
times ranked

705
citing authors

#	ARTICLE	IF	CITATIONS
1	Enhancement of optical gain of semiconductors embedded in three-dimensional photonic crystals. Applied Physics Letters, 1997, 71, 1616-1618.	3.3	180
2	Optical gain in porous silicon grains embedded in sol-gel derived SiO ₂ matrix under femtosecond excitation. Applied Physics Letters, 2004, 84, 3280-3282.	3.3	76
3	Basic features of transport in microcrystalline silicon. Solar Energy Materials and Solar Cells, 2003, 78, 493-512.	6.2	63
4	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
5	Stimulated emission in blue-emitting Si ⁺ -implanted SiO ₂ films?. Journal of Applied Physics, 2002, 91, 2896-2900.	2.5	59
6	A complex study of the fast blue luminescence of oxidized silicon nanocrystals: the role of the core. Nanoscale, 2014, 6, 3837.	5.6	38
7	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
8	Active planar optical waveguide made from luminescent silicon nanocrystals. Applied Physics Letters, 2003, 82, 955-957.	3.3	27
9	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
10	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
11	Charge transport in porous silicon: considerations for achievement of efficient electroluminescence. Thin Solid Films, 1996, 276, 187-190.	1.8	21
12	Red electroluminescence in Si ⁺ -implanted sol-gel-derived SiO ₂ films. Applied Physics Letters, 2000, 77, 2952-2954.	3.3	21
13	Charge transport in microcrystalline Si – the specific features. Solar Energy Materials and Solar Cells, 2001, 66, 61-71.	6.2	20
14	Amorphous/microcrystalline silicon superlattices – the chance to control isotropy and other transport properties. Applied Physics Letters, 2001, 79, 2540-2542.	3.3	18
15	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
16	Instabilities in electroluminescent porous silicon diodes. Applied Physics Letters, 1996, 69, 833-835.	3.3	15
17	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
18	Optical gain of CdS quantum dots embedded in 3D photonic crystals. Thin Solid Films, 1998, 318, 93-95.	1.8	12

#	ARTICLE	IF	CITATIONS
19	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
20	Optical Gain Measurements With Variable Stripe Length Technique. , 2003, , 223-242.		11
21	Visible photoluminescence in hydrogenated amorphous silicon grown in microwave plasma from SiH ₄ strongly diluted with He. Journal of Applied Physics, 1999, 86, 1415-1419.	2.5	10
22	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
23	Two-dimensional photonic crystal slab with embedded silicon nanocrystals: Efficient photoluminescence extraction. Applied Physics Letters, 2013, 102, .	3.3	10
24	Colloidal solutions of luminescent porous silicon clusters with different cluster sizes. Nanoscale Research Letters, 2014, 9, 478.	5.7	10
25	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
26	Porous silicon grains in SiO ₂ matrix: Ultrafast photoluminescence and optical gain. Journal of Non-Crystalline Solids, 2006, 352, 3041-3046.	3.1	9
27	Optical properties of Si ⁺ -ion implanted sol-gel derived SiO ₂ films. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2000, 69-70, 564-569.	3.5	8
28	Structure and Properties of Silicon Thin Films Deposited at Low Substrate Temperatures. Japanese Journal of Applied Physics, 2003, 42, L987-L989.	1.5	8
29	Room temperature electric field induced crystallization of wide band gap hydrogenated amorphous silicon. Thin Solid Films, 2001, 383, 101-103.	1.8	7
30	Formation of microcrystalline silicon at low temperatures and role of hydrogen. Journal of Non-Crystalline Solids, 2004, 338-340, 287-290.	3.1	7
31	Stabilization of silicon nanoparticles in colloidal solutions. Physica Status Solidi C: Current Topics in Solid State Physics, 2016, 13, 142-145.	0.8	7
32	Agglomeration of Luminescent Porous Silicon Nanoparticles in Colloidal Solutions. Nanoscale Research Letters, 2016, 11, 367.	5.7	7
33	Wide Gap Hydrogenated Amorphous Silicon for Visible Light Emission. Journal of Porous Materials, 2000, 7, 135-138.	2.6	6
34	Active planar optical waveguides with silicon nanocrystals: Leaky modes under different ambient conditions. Journal of Applied Physics, 2006, 100, 074307.	2.5	6
35	Silicon thin films deposited at very low substrate temperatures. Thin Solid Films, 2003, 442, 163-166.	1.8	5
36	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

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37	Hydrogenated amorphous silicon deposited by glow discharge of SiH ₄ diluted with He: photoluminescence and electroluminescence in the visible region. <i>Journal of Non-Crystalline Solids</i> , 1998, 227-230, 254-258.	3.1	3
38	Electroluminescence from Sol-Gel Derived Film of CdS Nanocrystals. <i>Physica Status Solidi A</i> , 2001, 184, R1-R3.	1.7	3
39	Ultrafast carrier dynamics in CdSe nanocrystalline films on crystalline silicon substrate. <i>Thin Solid Films</i> , 2002, 403-404, 462-466.	1.8	3
40	Light emitting wide band gap a-Si:H deposited by microwave electron cyclotron resonance plasma-enhanced chemical vapour deposition. <i>Journal of Non-Crystalline Solids</i> , 2000, 266-269, 583-587.	3.1	2
41	Structural and luminescence properties of silicon nanocrystals in colloidal solutions for bio applications. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2016, 213, 2873-2878.	1.8	2
42	Light amplification due to free and localized exciton states in ZnCdSe GRINSCH structures. <i>Applied Physics A: Materials Science and Processing</i> , 1998, 67, 121-124.	2.3	1
43	Electroluminescent properties of a-SiO _x :H alloys. <i>Journal of Non-Crystalline Solids</i> , 1998, 227-230, 1160-1163.	3.1	1
44	Grains of Porous Silicon Embedded in SiO ₂ : Studies of Optical Gain and Electroluminescence. <i>Solid State Phenomena</i> , 2004, 99-100, 31-36.	0.3	1
45	Comparison of Silicon Nanocrystals Prepared by Two Fundamentally Different Methods. <i>Nanoscale Research Letters</i> , 2016, 11, 445.	5.7	1
46	GUIDING AND AMPLIFICATION OF LIGHT DUE TO SILICON NANOCRYSTALS EMBEDDED IN WAVEGUIDES. , 0, , 267-296.		1
47	Optical gain and lasing in a semiconductor embedded in a three-dimensional photonic crystal. <i>Journal of Crystal Growth</i> , 1998, 184-185, 650-653.	1.5	1
48	Short-term degradation of porous silicon light-emitting diodes. <i>Journal of Luminescence</i> , 1997, 72-74, 992-993.	3.1	0
49	Determination of light amplification processes in MOCVD grown ZnCdSe GRINSCH structures. <i>Thin Solid Films</i> , 1998, 336, 326-331.	1.8	0
50	Response to "Comment on "Enhancement of the optical gain of semiconductors embedded in three-dimensional photonic crystals" [Appl. Phys. Lett. 73, 550 (1997)]. <i>Applied Physics Letters</i> , 1998, 73, 552-552.		0
51	Silicon-based materials for optoelectronics: visible photoluminescence and electroluminescence from amorphous silicon. , 1999, , .		0
52	<title>Silicon-based light-emitting materials: implanted SiO ₂ films and wide-bandgap a-Si:H</title>. , 2001, , .		0
53	Thin silicon films deposited at low substrate temperatures studied by surface photovoltage technique. <i>Thin Solid Films</i> , 2004, 451-452, 408-412.	1.8	0
54	Hydrophilic Luminescent Silicon Nanoparticles in Steric Colloidal Solutions: Their Size, Agglomeration, and Toxicity. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2017, 14, 1700195.	0.8	0

#	ARTICLE	IF	CITATIONS
55	Blue Electroluminescence from an SiO ₂ Film Highly Implanted with Si ⁺ Ions. Physica Status Solidi A, 1998, 167, R5-R6.	1.7	0