Roberto Koropecki

List of Publications by Year
in descending order

75	774	516710 16	610901 24
papers	citations	h-index	g-index

77	77	77	740
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Capillary Filling in Nanostructured Porous Silicon. Langmuir, 2011, 27, 2067-2072.	3.5	50
2	Photo-oxidation effects in porous silicon luminescence. Physical Review B, 2004, 69, .	3.2	38
3	Optimization of porous silicon multilayer as antireflection coatings for solar cells. Solar Energy Materials and Solar Cells, 2011, 95, 3069-3073.	6.2	37
4	Inverse Problem of Capillary Filling. Physical Review Letters, 2014, 112, 134502.	7.8	32
5	Innovative design for optical porous silicon gas sensor. Sensors and Actuators B: Chemical, 2010, 149, 189-193.	7.8	31
6	Density of states in the gap of amorphous semiconductors determined from modulated photocurrent measurements in the recombination regime. Journal of Applied Physics, 2002, 91, 8965-8969.	2.5	30
7	Infrared study of the Siâ€H stretching band inaâ€SiC:H. Journal of Applied Physics, 1991, 69, 7805-7811.	2.5	28
8	Direct evidence of porosity in carbonâ€rich hydrogenated amorphous silicon carbide films. Journal of Applied Physics, 1989, 66, 4544-4546.	2.5	27
9	Optofluidic Characterization of Nanoporous Membranes. Langmuir, 2013, 29, 2784-2789.	3.5	26
10	Structural Analysis of ZnO(:Al,Mg) Thin Films by X-ray Diffraction. , 2015, 8, 551-560.		26
11	Determination of semiconductor band gap state parameters from photoconductivity measurements. II. Experimental results. Physical Review B, 2006, 73, .	3.2	25
12	On the origin of white photoluminescence from ZnO nanocones/porous silicon heterostructures at room temperature. Superlattices and Microstructures, 2015, 79, 29-37.	3.1	22
13	Infrared studies combined with hydrogen effusion experiments on nanostructured porous silicon. Journal of Non-Crystalline Solids, 2004, 338-340, 159-162.	3.1	20
14	Structural mosaicity and electrical properties of pyrolytic SnO2:F thin films. Thin Solid Films, 2013, 531, 172-178.	1.8	19
15	Infrared study of the kinetics of oxidation in porous amorphous silicon. Journal of Applied Physics, 1986, 60, 1802-1807.	2.5	17
16	Polycrystalline silicon thin film solar cells prepared by PECVD-SPC. International Journal of Hydrogen Energy, 2008, 33, 3522-3525.	7.1	17
17	Negative differential resistance in porous silicon devices at room temperature. Superlattices and Microstructures, 2015, 79, 45-53.	3.1	17
18	Photoinduced phenomena in nanostructured porous silicon. Thin Solid Films, 2006, 510, 169-174.	1.8	16

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19	Light-induced defects in hydrogenated amorphous silicon studied by the constant-photocurrent method. Physical Review B, 1997, 55, 9621-9627.	3.2	15
20	Oxidation mechanisms in high pressure dc-sputtered a-Si films. Journal of Non-Crystalline Solids, 1985, 74, 11-17.	3.1	14
21	a-Si thin-film growth by sputtering: A Monte Carlo study. Physical Review B, 1987, 35, 7611-7617.	3.2	14
22	Kinetics of the photoinduced evolution of the nanostructured porous silicon photoluminescence. Journal of Non-Crystalline Solids, 2006, 352, 1163-1166.	3.1	13
23	Power-law photoconductivity time decay in nanocrystalline TiO₂thin films. Journal of Physics Condensed Matter, 2007, 19, 486205.	1.8	13
24	Light-induced creation of metastable defects in hydrogenated amorphous silicon studied by computer simulations of constant photocurrent measurements. Physical Review B, 1999, 59, 4568-4571.	3.2	12
25	Determination of the density of defect states by thermally stimulated conductivity studied from numerical simulations. Journal of Non-Crystalline Solids, 2004, 338-340, 322-325.	3.1	11
26	Role of hydrogen in the photoinduced evolution of porous silicon luminescence. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 2150-2154.	0.8	10
27	Transmittance correlation of porous silicon multilayers used as a chemical sensor platform. Sensors and Actuators B: Chemical, 2015, 213, 164-170.	7.8	10
28	Internal Strain Distribution in Freestanding Porous Silicon. Journal of the Electrochemical Society, 2009, 156, K215.	2.9	9
29	Rationally designed porous silicon as platform for optical biosensors. Thin Solid Films, 2012, 520, 6434-6439.	1.8	9
30	Real-time study of protein adsorption kinetics in porous silicon. Colloids and Surfaces B: Biointerfaces, 2013, 111, 354-359.	5.0	9
31	Optical performance of hybrid porous siliconâ€“porous alumina multilayers. Journal of Applied Physics, 2018, 123, 183101.	2.5	9
32	Low frequency modulated photoconductivity in semiconductors having multiple species of traps. Journal of Applied Physics, 2007, 101, 103705.	2.5	7
33	Structural properties of porous silicon/SnO2:F heterostructures. Thin Solid Films, 2012, 520, 4254-4258.	1.8	7
34	Negative thermal expansion of nanoporous anodic aluminum oxide membranes. Applied Physics Letters, 2019, 114, 111901.	3.3	7
35	Sensing anisotropic stresses with ferromagnetic nanowires. Applied Physics Letters, 2020, 116, .	3.3	7
36	Oxygen depth profiling of high pressure DC-sputtered amorphous silicon. Applied Surface Science, 1986, 25, 321-326.	6.1	6

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37	Annealingâ€induced effects on the stability of hydrogenated amorphous silicon. Journal of Applied Physics, 1995, 78, 5959-5964.	2.5	6
38	Energy-resolved photon flux dependence of the steady state photoconductivity in hydrogenated amorphous silicon: implications for the constant photocurrent method. Thin Solid Films, 2000, 376, 267-274.	1.8	6
39	Microcrystalline silicon thin films: A review of physical properties. Microelectronics Journal, 2008, 39, 1292-1295.	2.0	5
40	Modulated photoconductivity in the high and low frequency regimes. Journal of Non-Crystalline Solids, 2008, 354, 2914-2917.	3.1	5
41	Kinetics of electron induced desorption of hydrogen in nanostructured porous silicon. Physica Status Solidi (A) Applications and Materials Science, 2011, 208, 1453-1457.	1.8	5
42	Fano resonance in heavily doped porous silicon. Journal of Raman Spectroscopy, 2011, 42, 1405-1407.	2.5	5
43	Vacuum-enhanced nickel-induced crystallization of hydrogenated amorphous silicon. Journal of Applied Physics, 2012, 112, 073506.	2.5	5
44	Current-voltage characteristics in macroporous silicon/SiOx/SnO2:F heterojunctions. Nanoscale Research Letters, 2012, 7, 419.	5.7	5
45	Kinetics of the Staebler-Wronski effect. Physical Review B, 1987, 35, 1442-1445.	3.2	4
46	Cathodo and photoluminescence studies of non-stoichiometric amorphous silicon carbide and nitride. Journal of Non-Crystalline Solids, 1989, 115, 42-44.	3.1	4
47	Effect of the deposition variables on amorphous silicon stability. Journal of Non-Crystalline Solids, 1993, 164-166, 259-262.	3.1	4
48	Effects of the carrier gas on properties of SnO2 deposited by pyrolysis. Solar Energy Materials and Solar Cells, 1995, 36, 327-337.	6.2	4
49	Determination of the density of states of semiconductors from steady-state photoconductivity measurements. Journal of Non-Crystalline Solids, 2006, 352, 1024-1027.	3.1	4
50	Effect of boron on the microstructure of hydrogenated microcrystalline silicon thin films. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 4134-4138.	0.8	4
51	Infrared study of the oxidation of porous silicon: evidence of surface modes. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 1546-1550.	0.8	4
52	Secondary electron emission in nanostructured porous silicon. Journal of Physics: Conference Series, 2009, 167, 012006.	0.4	4
53	Enhanced photoconductivity and fine response tuning in nanostructured porous silicon microcavities. Journal of Physics: Conference Series, 2009, 167, 012005.	0.4	4
54	Reversible Ion Induced Modification of Consequent Secondary Electron Emission in Porous Silicon. The Open Surface Science Journal, 2009, 1, 46-49.	2.0	4

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55	Photoinduced effects in diamondlike hydrogenated amorphous carbon films. Journal of Non-Crystalline Solids, 1991, 137-138, 835-838.	3.1	3
56	White light from annealed porous silicon: Broadband emission from violet to the near infrared. Materials Letters, 2015, 150, 55-58.	2.6	3
57	Formation of lipid bilayers on the pore walls of macroporous silicon. Thin Solid Films, 2019, 672, 120-125.	1.8	3
58	Effects of Irradiation on Porous Silicon. , 2018, , 739-753.		3
59	Reply to â€˜â€˜Comment on â€˜Infrared study of the Siâ€H stretching band inaâ€SiC:Hâ€™ â€™â€™ [J. Appl. Phys.69, 7805 (1991)]. Journal of Applied Physics, 1992, 71, 4092-4093.	2.5	2
60	Conductivity dependence on the thickness of hydrogenated, amorphous silicon-carbon films. Thin Solid Films, 1997, 295, 287-294.	1.8	2
61	Kinetics of the oxidation of GaAs(100) at high pressure: an Auger electron spectroscopy study. Surface and Coatings Technology, 1999, 122, 56-59.	4.8	2
62	Post-growth annealing effects in compensated Î¼c-Si:H samples. Journal of Non-Crystalline Solids, 2004, 338-340, 430-433.	3.1	2
63	Hydrogen isotopic substitution experiments in nanostructured porous silicon. Thin Solid Films, 2008, 516, 3729-3734.	1.8	2
64	Switchable Electric Field Induced Diode Effect in Nanostructured Porous Silicon. IEEE Electron Device Letters, 2013, 34, 590-592.	3.9	2
65	The role of surface in sputtered amorphous silicon: An oxidation study. Journal of Applied Physics, 1985, 58, 4251-4255.	2.5	1
66	Cathodoluminescence of Diamond-Like and Hydrogenated Amorphous Silicon Carbide Materials. Materials Research Society Symposia Proceedings, 1990, 192, 181.	0.1	1
67	On the validity of defect density determinations by the recombination-regime modulated photoconductivity technique. Thin Solid Films, 2004, 449, 180-186.	1.8	1
68	Cathodoluminescence of diamondlike films deposited by glow discharge. Journal of Applied Physics, 1990, 68, 3786-3788.	2.5	0
69	The thickness dependence of electronic properties of doped a-Si:H alloys. Journal of Physics Condensed Matter, 1993, 5, A339-A340.	1.8	0
70	Density of States in Thin Boron-Doped Microcrystalline Silicon Films Estimated from the Thermally Stimulated Conductivity Method. Acta Physica Polonica A, 2014, 125, 174-176.	0.5	0
71	Effects of Irradiation on Porous Silicon. , 2014, , 1-14.		0
72	Optical Losses in Hybrid Microcavity Based in Porous Semiconductors and its Application as Optic Chemical Sensor. Journal of Nano Research, 2019, 56, 158-167.	0.8	0

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73	Normal incidence birefringence in nanoporous alumina. Optical Materials, 2021, 122, 111652.	3.6	0
74	Effects of Irradiation on Porous Silicon. , 2014, , 505-519.		0
75	Effects of Irradiation on Porous Silicon. , 2014, , 1-15.		0