

Slawomir Prucnal

List of Publications by Year in descending order

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86
papers

1,332
citations

394421

19
h-index

434195

31
g-index

86
all docs

86
docs citations

86
times ranked

1581
citing authors

#	ARTICLE	IF	CITATIONS
1	Mid- and far-infrared localized surface plasmon resonances in chalcogen-hyperdoped silicon. <i>Nanoscale</i> , 2022, 14, 2826-2836.	5.6	9
2	Self-Driven Broadband Photodetectors Based on MoSe ₂ /FePS ₃ van der Waals n ⁺ -p Type-II Heterostructures. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 11927-11936.	8.0	35
3	Tuning of Curie temperature in Mn ₅ Ge ₃ films. <i>Journal of Applied Physics</i> , 2022, 131, 105102.	2.5	1
4	Phase Selection in Mn ⁺ Si Alloys by Fast Solid ⁺ State Reaction with Enhanced Skyrmion Stability. <i>Advanced Functional Materials</i> , 2021, 31, 2009723.	14.9	9
5	Enhanced Trion Emission in Monolayer MoSe ₂ by Constructing a Type ⁺ Van Der Waals Heterostructure. <i>Advanced Functional Materials</i> , 2021, 31, 2104960.	14.9	21
6	Increased dephasing length in heavily doped GaAs. <i>New Journal of Physics</i> , 2021, 23, 083034.	2.9	1
7	Strain-induced switching between noncollinear and collinear spin configuration in magnetic films. <i>Physical Review B</i> , 2021, 104, .	3.2	7
8	Plasmonic gratings from highly doped Ge ⁺ y Sn y films on Si. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 445109.	2.8	3
9	B ²⁺ MnSi films grown on Si(100) substrates with magnetic skyrmion signature. <i>Materials Today Physics</i> , 2021, 21, 100541.	6.0	2
10	Chlorine doping of MoSe ₂ flakes by ion implantation. <i>Nanoscale</i> , 2021, 13, 5834-5846.	5.6	21
11	Impact of the Backgate on the Performance of SOI UTBB nMOSFETs at Cryogenic Temperatures. , 2021, , .		4
12	Electrical Characterization of Germanium Nanowires Using a Symmetric Hall Bar Configuration: Size and Shape Dependence. <i>Nanomaterials</i> , 2021, 11, 2917.	4.1	5
13	Controlled Silicidation of Silicon Nanowires Using Flash Lamp Annealing. <i>Langmuir</i> , 2021, , .	3.5	4
14	Kinetics of Bulk Lifetime Degradation in Float ⁺ Zone Silicon: Fast Activation and Annihilation of Grown ⁺ n Defects and the Role of Hydrogen versus Light. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2020, 217, 2000436.	1.8	12
15	Critical behavior of the insulator-to-metal transition in Te-hyperdoped Si. <i>Physical Review B</i> , 2020, 102, .	3.2	8
16	An infrared transmission study of Ge:Mn thick films prepared by ion implantation and post-annealing. <i>Journal of Applied Physics</i> , 2020, 127, 103902.	2.5	1
17	Electron Concentration Limit in Ge Doped by Ion Implantation and Flash Lamp Annealing. <i>Materials</i> , 2020, 13, 1408.	2.9	6
18	Dissolution of donor-vacancy clusters in heavily doped n-type germanium. <i>New Journal of Physics</i> , 2020, 22, 123036.	2.9	4

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19	Band gap renormalization in n-type GeSn alloys made by ion implantation and flash lamp annealing. Journal of Applied Physics, 2019, 125, .	2.5	9
20	Thermal Stability of Defect-Enhanced Ge on Si Quantum Dot Luminescence upon Millisecond Flash Lamp Annealing. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1900307.	1.8	9
21	Beyond Semiconductors. Springer Series in Materials Science, 2019, , 233-282.	0.6	0
22	Phase Selectivity in Cr and N Co-Doped TiO ₂ Films by Modulated Sputter Growth and Post-Deposition Flash-Lamp-Annealing. Coatings, 2019, 9, 448.	2.6	3
23	Semiconductor Applications. Springer Series in Materials Science, 2019, , 131-232.	0.6	0
24	Nanoscale n++-p junction formation in GeOI probed by tip-enhanced Raman spectroscopy and conductive atomic force microscopy. Journal of Applied Physics, 2019, 125, 245703.	2.5	5
25	Breaking the Doping Limit in Silicon by Deep Impurities. Physical Review Applied, 2019, 11, .	3.8	44
26	Formation and Characterization of Shallow Junctions in GaAs Made by Ion Implantation and ms-Range Flash Lamp Annealing. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1800618.	1.8	3
27	Structural and optical properties of pulsed-laser deposited crystalline $\text{In}^2\text{-Ga}_{2}\text{O}_{3}$ thin films on silicon. Semiconductor Science and Technology, 2019, 34, 035001.	2.0	39
28	Ultra-fast annealing manipulated spinodal nano-decomposition in Mn-implanted Ge. Nanotechnology, 2019, 30, 054001.	2.6	6
29	Thermal stability of Te-hyperdoped Si: Atomic-scale correlation of the structural, electrical, and optical properties. Physical Review Materials, 2019, 3, .	2.4	13
30	Superconductivity in single-crystalline aluminum- and gallium-hyperdoped germanium. Physical Review Materials, 2019, 3, .	2.4	7
31	Ion Beam Modification of ZnO Epilayers: Sequential Processing. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1700887.	1.8	7
32	Ex situ n ⁺⁺ doping of GeSn alloys via non-equilibrium processing. Semiconductor Science and Technology, 2018, 33, 065008.	2.0	13
33	CMOS-Compatible Controlled Hyperdoping of Silicon Nanowires. Advanced Materials Interfaces, 2018, 5, 1800101.	3.7	11
34	On the insulator-to-metal transition in titanium-implanted silicon. Scientific Reports, 2018, 8, 4164.	3.3	17
35	Strain and Band-Gap Engineering in Ge - Sn Alloys via $\text{Ge}_{1-x}\text{Sn}_x$ Epitaxial Mn ₅ Ge ₃ (100) layer on Ge (100) substrates obtained by flash lamp annealing. Applied Physics Letters, 2018, 113, .	3.8	17
36	Epitaxial Mn ₅ Ge ₃ (100) layer on Ge (100) substrates obtained by flash lamp annealing. Applied Physics Letters, 2018, 113, .	3.3	14

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37	Formation of n- and p-type regions in individual Si/SiO ₂ core/shell nanowires by ion beam doping. Nanotechnology, 2018, 29, 474001.	2.6	6
38	Extended Infrared Photoresponse in Te -Hyperdoped Si at Room Temperature. Physical Review Applied, 2018, 10, .	3.8	45
39	Nematicity of correlated systems driven by anisotropic chemical phase separation. Physical Review Materials, 2018, 2, .	2.4	9
40	Impact of Self-Trapped Excitons on Blue Photoluminescence in TiO ₂ Nanorods on Chemically Etched Si Pyramids. Journal of Physical Chemistry C, 2017, 121, 11448-11454.	3.1	38
41	The photoluminescence response to structural changes of Yb implanted ZnO crystals subjected to non-equilibrium processing. Journal of Applied Physics, 2017, 121, .	2.5	23
42	Room-temperature short-wavelength infrared Si photodetector. Scientific Reports, 2017, 7, 43688.	3.3	79
43	<i>In situ</i> ohmic contact formation for n-type Ge via non-equilibrium processing. Semiconductor Science and Technology, 2017, 32, 115006.	2.0	10
44	Engineering of optical and electrical properties of ZnO by non-equilibrium thermal processing: The role of zinc interstitials and zinc vacancies. Journal of Applied Physics, 2017, 122, 035303.	2.5	17
45	Structural and optical studies of Pr implanted ZnO films subjected to a long-time or ultra-fast thermal annealing. Thin Solid Films, 2017, 643, 24-30.	1.8	11
46	Doping by flash lamp annealing. Materials Science in Semiconductor Processing, 2017, 62, 115-127.	4.0	44
47	An Energy-Efficient, BiFeO ₃ -Coated Capacitive Switch with Integrated Memory and Demodulation Functions. Advanced Electronic Materials, 2016, 2, 1500352.	5.1	19
48	Capacitive Switching: An Energy-Efficient, BiFeO ₃ -Coated Capacitive Switch with Integrated Memory and Demodulation Functions (Adv. Electron. Mater. 3/2016). Advanced Electronic Materials, 2016, 2, .	5.1	0
49	The effect of millisecond flash lamp annealing on electrical and structural properties of ZnO:Al/Si structures. Journal of Applied Physics, 2016, 119, 185305.	2.5	10
50	Formation of silicon nanocrystals in silicon carbide using flash lamp annealing. Journal of Applied Physics, 2016, 120, .	2.5	1
51	Synthesis, Morphological, and Electro-optical Characterizations of Metal/Semiconductor Nanowire Heterostructures. Nano Letters, 2016, 16, 3507-3513.	9.1	14
52	Enhancement of carrier mobility in thin Ge layer by Sn co-doping. Semiconductor Science and Technology, 2016, 31, 105012.	2.0	7
53	A review of thermal processing in the subsecond range: semiconductors and beyond. Semiconductor Science and Technology, 2016, 31, 103001.	2.0	70
54	Ultra-doped n-type germanium thin films for sensing in the mid-infrared. Scientific Reports, 2016, 6, 27643.	3.3	64

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55	Polycrystalline ZnTe thin film on silicon synthesized by pulsed laser deposition and subsequent pulsed laser melting. <i>Materials Research Express</i> , 2016, 3, 036403.	1.6	8
56	III-V nanocrystal formation in ion-implanted Ge and Si via liquid phase epitaxy during short-time flash lamp annealing. <i>Materials Science in Semiconductor Processing</i> , 2016, 42, 166-169.	4.0	5
57	Band-gap narrowing in Mn-doped GaAs probed by room-temperature photoluminescence. <i>Physical Review B</i> , 2015, 92, .	3.2	13
58	Blue shift in absorption edge and widening of band gap of ZnO by Al doping and Al-N co-doping. <i>Journal of Alloys and Compounds</i> , 2015, 644, 528-533.	5.5	49
59	Hyperdoping silicon with selenium: solid vs. liquid phase epitaxy. <i>Scientific Reports</i> , 2015, 5, 8329.	3.3	49
60	Ferromagnetic GaMnP Prepared by Ion Implantation and Pulsed Laser Annealing. <i>IEEE Transactions on Magnetics</i> , 2014, 50, 1-4.	2.1	8
61	Optoelectronic properties of ZnO film on silicon after SF ₆ plasma treatment and milliseconds annealing. <i>Applied Physics Letters</i> , 2014, 105, 221903.	3.3	15
62	Hydrogen engineering via plasma immersion ion implantation and flash lamp annealing in silicon-based solar cell substrates. <i>Journal of Applied Physics</i> , 2014, 115, 064505.	2.5	14
63	III-V/Si on silicon-on-insulator platform for hybrid nanoelectronics. <i>Journal of Applied Physics</i> , 2014, 115, .	2.5	12
64	Formation and photoluminescence of GaAs _{1-x} N _x dilute nitride achieved by N-implantation and flash lamp annealing. <i>Applied Physics Letters</i> , 2014, 105, 012107.	3.3	10
65	Ge _{1-x} S _x alloys synthesized by ion implantation and pulsed laser melting. <i>Applied Physics Letters</i> , 2014, 105, .	3.3	22
66	Structural and magnetic properties of irradiated SiC. <i>Journal of Applied Physics</i> , 2014, 115, 17C104.	2.5	12
67	III-V semiconductor nanocrystal formation in silicon nanowires via liquid-phase epitaxy. <i>Nano Research</i> , 2014, 7, 1769-1776.	10.4	15
68	Disentangling defect-induced ferromagnetism in SiC. <i>Physical Review B</i> , 2014, 89, .	3.2	25
69	Origin and enhancement of the 1.3 eV luminescence from GaAs treated by ion-implantation and flash lamp annealing. <i>Journal of Applied Physics</i> , 2013, 114, .	2.5	9
70	Fabrication of Si _{1-x} Ge _x Alloy on Silicon by Ge-Ion-Implantation and Short-Time-Annealing. <i>Acta Physica Polonica A</i> , 2013, 123, 858-861.	0.5	7
71	Temperature stable 13 eV emission from GaAs. <i>Optics Express</i> , 2012, 20, 26075.	3.4	10
72	Millisecond annealing for advanced doping of dirty-silicon solar cells. <i>Journal of Applied Physics</i> , 2012, 111, 123104.	2.5	12

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73	InP nanocrystals on silicon for optoelectronic applications. Nanotechnology, 2012, 23, 485204.	2.6	19
74	n-InAs Nanopyramids Fully Integrated into Silicon. Nano Letters, 2011, 11, 2814-2818.	9.1	23
75	Rise and fall of defect induced ferromagnetism in SiC single crystals. Applied Physics Letters, 2011, 98, .	3.3	50
76	Solar Cell Emitters Fabricated by Flash Lamp Millisecond Annealing. Acta Physica Polonica A, 2011, 120, 30-34.	0.5	10
77	Blue electroluminescence of ytterbium clusters in SiO ₂ by co-operative up-conversion. Applied Physics B: Lasers and Optics, 2010, 98, 451-454.	2.2	7
78	Crystalline ripples at the surface of ion eroded strained Si _{0.8} Ge _{0.2} epilayers. Journal of Applied Physics, 2010, 107, 073513.	2.5	4
79	Comparison of the room temperature 1.53 μm Er photoluminescence from flash lamp and furnace annealed Er-doped Ge-rich SiO ₂ layers. Journal of Applied Physics, 2010, 107, 113523.	2.5	4
80	Electroluminescence (at 316 nm) and electrical stability of a Si MOS light-emitting device operated at different temperatures. Applied Physics B: Lasers and Optics, 2009, 94, 289-293.	2.2	1
81	Reactivation of damaged rare earth luminescence centers in ion-implanted metal-oxide-silicon light emitting devices. Applied Physics B: Lasers and Optics, 2008, 91, 123-126.	2.2	11
82	Switchable two-color electroluminescence based on a Si metal-oxide-semiconductor structure doped with Eu. Applied Physics Letters, 2007, 90, 181121.	3.3	62
83	Millisecond processing beyond chip technology: From electronics to photonics. , 2007, , .		3
84	Rare Earth Ion Implantation for Silicon Based Light Emission: From Infrared to Ultraviolet. Materials Research Society Symposia Proceedings, 2005, 866, 101.	0.1	4
85	Influence of fabrication parameters on the magnetic and structural properties of Mn ₅ Ge ₃ . Semiconductor Science and Technology, 0, , .	2.0	0
86	Atomically Thin Delta-Doping of Self-Assembled Molecular Monolayers by Flash Lamp Annealing for Si-Based Deep UV Photodiodes. ACS Applied Materials & Interfaces, 0, , .	8.0	2