

# Zoran Jaksic

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9212839/publications.pdf>

Version: 2024-02-01

138  
papers

853  
citations

566801

15  
h-index

610482

24  
g-index

140  
all docs

140  
docs citations

140  
times ranked

761  
citing authors

#	ARTICLE	IF	CITATIONS
1	Negative Refractive Index Metasurfaces for Enhanced Biosensing. <i>Materials</i> , 2011, 4, 1-36.	1.3	81
2	A consideration of the use of metamaterials for sensing applications: field fluctuations and ultimate performance. <i>Journal of Optics</i> , 2007, 9, S377-S384.	1.5	60
3	Silver-silica transparent metal structures as bandpass filters for the ultraviolet range. <i>Journal of Optics</i> , 2005, 7, 51-55.	1.5	49
4	Functionalization of Artificial Freestanding Composite Nanomembranes. <i>Materials</i> , 2010, 3, 165-200.	1.3	33
5	Emittance and absorptance tailoring by negative refractive index metamaterial-based Cantor multilayers. <i>Journal of Optics</i> , 2006, 8, 355-362.	1.5	32
6	Biomimetic Nanomembranes: An Overview. <i>Biomimetics</i> , 2020, 5, 24.	1.5	29
7	Intelligent thermal vacuum sensors based on multipurpose thermopile MEMS chips. <i>Vacuum</i> , 2014, 101, 118-124.	1.6	23
8	Modification of thermal radiation by periodical structures containing negative refractive index metamaterials. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2005, 342, 497-503.	0.9	20
9	Electromagnetic simulation of MXene-based plasmonic metamaterials with enhanced optical absorption. <i>Optical and Quantum Electronics</i> , 2020, 52, 1.	1.5	20
10	Performance limits to the operation of nanoplasmonic chemical sensors: noise-equivalent refractive index and detectivity. <i>Journal of Nanophotonics</i> , 2009, 3, 031770.	0.4	19
11	Oblique surface waves at an interface between a metal-dielectric superlattice and an isotropic dielectric. <i>Physica Scripta</i> , 2012, T149, 014041.	1.2	19
12	Simple and reliable technology for manufacturing metal-composite nanomembranes with giant aspect ratio. <i>Microelectronic Engineering</i> , 2009, 86, 906-909.	1.1	17
13	Substantial enlargement of angular existence range for Dyakonov-like surface waves at semi-infinite metal-dielectric superlattice. <i>Journal of Nanophotonics</i> , 2012, 6, 063525.	0.4	17
14	Fluctuations in transient response of adsorption-based plasmonic sensors. <i>Sensors and Actuators B: Chemical</i> , 2014, 190, 419-428.	4.0	17
15	Nanomembrane-based plasmonics. <i>Journal of Nanophotonics</i> , 2011, 5, 051818.	0.4	16
16	Lossy gradient index metamaterial with sinusoidal periodicity of refractive index: case of constant impedance throughout the structure. <i>Journal of Nanophotonics</i> , 2011, 5, 051804.	0.4	15
17	Field effect transistor based on ions as charge carriers. <i>Sensors and Actuators B: Chemical</i> , 2012, 170, 137-142.	4.0	13
18	Some theoretical and technological aspects of uncooled HgCdTe detectors: a review. <i>Microelectronics Journal</i> , 1994, 25, 99-114.	1.1	12

#	ARTICLE	IF	CITATIONS
19	Adsorption-desorption noise in plasmonic chemical/biological sensors for multiple analyte environment. <i>Microsystem Technologies</i> , 2010, 16, 735-743.	1.2	12
20	Lossy gradient index transmission optics with arbitrary periodic permittivity and permeability and constant impedance throughout the structure. <i>Journal of Optics (United Kingdom)</i> , 2012, 14, 065102.	1.0	12
21	Auger generation suppression in narrow-gap semiconductors using the magnetoconcentration effect. <i>Journal of Applied Physics</i> , 1992, 71, 5706-5708.	1.1	11
22	Cavity Enhancement of Auger-Suppressed Detectors: A Way to Background-Limited Room-Temperature Operation in $10^{-14}$ to $10^{-12}$ m Range. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2004, 10, 771-776.	1.9	11
23	A comparative analyze of fundamental noise in cantilever sensors based on lateral and longitudinal displacement: case of thermal infrared detectors. <i>Microsystem Technologies</i> , 2010, 16, 755-763.	1.2	11
24	Plasmonic crystal waveguides. <i>Applied Physics A: Materials Science and Processing</i> , 2011, 103, 615-617.	1.1	11
25	Plasmonic sensors in multi-analyte environment: Rate constants and transient analysis. <i>Chemical Engineering Research and Design</i> , 2014, 92, 91-101.	2.7	11
26	Enhancement of radiative lifetime in semiconductors using photonic crystals. <i>Infrared Physics and Technology</i> , 1999, 40, 25-32.	1.3	10
27	Fabrication-induced disorder in structures for nanophotonics. <i>Microelectronic Engineering</i> , 2006, 83, 1792-1797.	1.1	10
28	Plasmon modes on laminated nanomembrane-based waveguides. <i>Journal of Nanophotonics</i> , 2010, 4, 041770.	0.4	10
29	Nanotechnological Enhancement of Infrared Detectors by Plasmon Resonance in Transparent Conductive Oxide Nanoparticles. <i>Strojnicki Vestnik/Journal of Mechanical Engineering</i> , 2012, 58, 367-375.	0.6	10
30	Ambient temperature HgCdTe photoconductor can achieve detectivity higher than $10^8$ cm Hz <sup>1/2</sup> /W at $10.6\mu\text{m}$ . <i>Electronics Letters</i> , 1988, 24, 1590.	0.5	10
31	Exact analytical solution for fields in gradient index metamaterials with different loss factors in negative and positive refractive index segments. <i>Journal of Nanophotonics</i> , 2013, 7, 073086.	0.4	9
32	Micro and Nanophotonics for Semiconductor Infrared Detectors. , 2014, , .		9
33	Monolayer gas adsorption in plasmonic sensors: Comparative analysis of kinetic models. <i>Russian Journal of Physical Chemistry A</i> , 2013, 87, 2134-2139.	0.1	8
34	Fishnet-Based Metamaterials: Spectral Tuning Through Adsorption Mechanism. <i>Acta Physica Polonica A</i> , 2009, 116, 625-627.	0.2	8
35	Isothermal vapor phase epitaxy of (Hg,Cd) Te from Te-rich Hg <sup>1-y</sup> Te <sup>y</sup> source. <i>Journal of Crystal Growth</i> , 1991, 108, 710-718.	0.7	7
36	Suppression of noise in semiconductor infrared detectors using plasmonics. <i>Journal of Optics (United Kingdom)</i> , 2014, 16, 125011.	1.0	7

#	ARTICLE	IF	CITATIONS
37	A method enabling simultaneous pressure and temperature measurement using a single piezoresistive MEMS pressure sensor. <i>Measurement Science and Technology</i> , 2016, 27, 125101.	1.4	7
38	Back side reflection influence on quantum efficiency of photovoltaic devices. <i>Electronics Letters</i> , 1988, 24, 1100.	0.5	7
39	Nanofabrication of negative refractive index metasurfaces. <i>Microelectronic Engineering</i> , 2006, 83, 1786-1791.	1.1	6
40	Butterfly scales as bionic templates for complex ordered nanophotonic materials: A pathway to biomimetic plasmonics. <i>Optical Materials</i> , 2013, 35, 1869-1875.	1.7	6
41	Adsorption-induced fluctuations and noise in plasmonic metamaterial devices. <i>Physica Scripta</i> , 2014, T162, 014047.	1.2	6
42	EXACT ANALYTICAL SOLUTION FOR FIELDS IN A LOSSY CYLINDRICAL STRUCTURE WITH LINEAR GRADIENT INDEX METAMATERIALS. <i>Progress in Electromagnetics Research</i> , 2015, 151, 109-117.	1.6	6
43	Multiscale in modelling and validation for solar photovoltaics. <i>EPJ Photovoltaics</i> , 2018, 9, 10.	0.8	6
44	Simple approximation for absorption coefficient in degenerate HgCdTe. , 0, , .		5
45	Thermal radiation antennas made of multilayer structures containing negative index metamaterials. <i>Proceedings of SPIE</i> , 2008, , .	0.8	5
46	Intelligent Thermopile-Based Vacuum Sensor. <i>Procedia Engineering</i> , 2011, 25, 575-578.	1.2	5
47	Exact analytical solution for fields in a lossy cylindrical structure with hyperbolic tangent gradient index metamaterials. <i>Optical and Quantum Electronics</i> , 2016, 48, 1.	1.5	5
48	On Oscillations and Noise in Multicomponent Adsorption: The Nature of Multiple Stationary States. <i>Advances in Mathematical Physics</i> , 2019, 2019, 1-12.	0.4	5
49	Transmission Spectra of Thue-Morse Multilayers Containing Negative Index Metamaterials. <i>Acta Physica Polonica A</i> , 2007, 112, 1049-1054.	0.2	5
50	Some peculiarities of (Hg, Cd) Te liquid-phase epitaxial growth in a semi-closed, two-zone system. <i>Journal of Materials Science: Materials in Electronics</i> , 1991, 2, 63-71.	1.1	4
51	Optimised high-frequency performance of Auger-suppressed magnetoconcentration photoconductors. <i>Microelectronics Journal</i> , 2000, 31, 981-990.	1.1	4
52	Three-dimensional surface sculpting of freestanding metal-composite nanomembranes. <i>Microelectronic Engineering</i> , 2010, 87, 1487-1490.	1.1	4
53	Field localization control in aperture-based plasmonics by Boolean superposition of primitive forms at deep subwavelength scale. <i>Optical and Quantum Electronics</i> , 2016, 48, 1.	1.5	4
54	Monolayer Gas Adsorption on Graphene-Based Materials: Surface Density of Adsorption Sites and Adsorption Capacity. <i>Surfaces</i> , 2020, 3, 423-432.	1.0	4

#	ARTICLE	IF	CITATIONS
55	Monolithically Integrated Diffused Silicon Two-Zone Heaters for Silicon-Pyrex Glass Microreactors for Production of Nanoparticles: Heat Exchange Aspects. <i>Micromachines</i> , 2020, 11, 818.	1.4	4
56	Surface Plasmon-Polariton Assisted Metal-Dielectric Multilayers as Passband Filters for Ultraviolet Range. <i>Acta Physica Polonica A</i> , 2007, 112, 953-958.	0.2	4
57	Local growth of HgCdTe layers by isothermal vapour phase epitaxy. <i>Electronics Letters</i> , 1990, 26, 1005.	0.5	3
58	Composition profiles of (Hg,Cd)Te liquid phase epitaxy layers grown from Te-rich solution. <i>Journal of Crystal Growth</i> , 1994, 143, 176-183.	0.7	3
59	MEMS accelerometer with all-optical readout based on twin-defect photonic crystal waveguide. , 0, , .		3
60	Electromagnetic Structures Containing Negative Refractive Index Metamaterials. , 0, , .		3
61	Functionalization of plasmonic metamaterials utilizing metal-organic framework thin films. <i>Physica Scripta</i> , 2012, T149, 014051.	1.2	3
62	A low-loss double-fishnet metamaterial based on transparent conductive oxide. <i>Physica Scripta</i> , 2014, T162, 014048.	1.2	3
63	Tamm plasmon modes on semi-infinite metallodielectric superlattices. <i>Scientific Reports</i> , 2017, 7, 3746.	1.6	3
64	Subwavelength nickel-copper multilayers as an alternative plasmonic material. <i>Optical and Quantum Electronics</i> , 2018, 50, 1.	1.5	3
65	The time response of plasmonic sensors due to binary adsorption: analytical versus numerical modeling. <i>Applied Physics A: Materials Science and Processing</i> , 2020, 126, 1.	1.1	3
66	A simplified analytical approach to calculation of the electromagnetic behavior of left-handed metamaterials with a graded refractive index profile. <i>Science of Sintering</i> , 2007, 39, 185-191.	0.5	3
67	Dyakonons in hyperbolic metamaterials. <i>Photonics Letters of Poland</i> , 2013, 5, .	0.2	3
68	Brochosome-Inspired Metal-Containing Particles as Biomimetic Building Blocks for Nanoplasmonics: Conceptual Generalizations. <i>Biomimetics</i> , 2021, 6, 69.	1.5	3
69	IR photodetector with exclusion effect and self-filtering n+ layer. <i>Electronics Letters</i> , 1990, 26, 929.	0.5	2
70	A simple approximative method for determination of Auger 1 lifetime in degenerate narrow gap semiconductors. <i>Infrared Physics</i> , 1993, 34, 601-605.	0.5	2
71	Dispersion of refractive index in degenerate mercury cadmium telluride. , 0, , .		2
72	Extraction photodiodes with auger suppression for all-weather free-space optical communication. , 0, , .		2

#	ARTICLE	IF	CITATIONS
73	Light modulation utilizing photonic crystal-based photoelastic elements with dual built-in defect. , 0, , .		2
74	Bionic (Nano) Membranes. Biological and Medical Physics Series, 2011, , 9-24.	0.3	2
75	Super Unit Cells in Aperture-Based Metamaterials. Journal of Nanomaterials, 2015, 2015, 1-9.	1.5	2
76	Nonlocal effects in double fishnet metasurfaces nanostructured at deep subwavelength level as a path toward simultaneous sensing of multiple chemical analytes. Photonics and Nanostructures - Fundamentals and Applications, 2016, 18, 36-42.	1.0	2
77	Reviewing MXenes for Plasmonic Applications: Beyond Graphene. , 2019, , .		2
78	Temporal response of biochemical and biological sensors with bimodal surface adsorption from a finite sample. Microsystem Technologies, 2020, 27, 1-7.	1.2	2
79	Modelling of plasmonic biosensor temporal response influenced by competitive adsorption and analyte depletion. Measurement Science and Technology, 2021, 32, 095701.	1.4	2
80	Plasmonic enhancement of light trapping in photodetectors. Facta Universitatis - Series Electronics and Energetics, 2014, 27, 183-203.	0.6	2
81	Subwavelength hole arrays with nanoapertures fabricated by scanning probe nanolithography. Science of Sintering, 2006, 38, 117-123.	0.5	2
82	Spectral characteristics of high temperature IR photodetectors with electromagnetic carrier depletion. Infrared Physics and Technology, 1994, 35, 585-591.	1.3	1
83	DBR Active Optical Filters Incorporating Negative Refractive Index Metamaterials. , 0, , .		1
84	Scanning Probe-Shaped Nanohole Arrays with Extraordinary Optical Transmission as Platform for Enhanced Surface Plasmon-Based Biosensing. , 2006, , .		1
85	A Consideration of Transparent Metal Structures for Subwavelength Diffraction Management. , 0, , .		1
86	Metal-dielectric photonic crystal for the enhancement of solar-blind ultraviolet silicon photodiodes. , 2008, , .		1
87	Micromechanical sensors based on lateral and longitudinal displacement of a cantilever sensing element: a comparative performance study. Proceedings of SPIE, 2009, , .	0.8	1
88	Exact analytical treatment of the graded interfaces between positive and negative refractive index media. , 2009, , .		1
89	Analysis of transients in adsorption-desorption at the surface of plasmonic sensors: Nonlinear versus linear approach. , 2012, , .		1
90	Enhancing performance of nanohole-based plasmonic sensors by transparent conductive oxides. , 2012, , .		1

#	ARTICLE	IF	CITATIONS
91	Dispersion, diffraction and surface waves in semi-infinite metal-dielectric superlattices. , 2012, , .		1
92	Broadband enhancement of devices and microsystems for light harvesting and photocatalysis. Optical and Quantum Electronics, 2020, 52, 1.	1.5	1
93	Equilibrium fluctuations in chemical reactions: a viable source of random data (numbers, maps and) Tj ETQq1 1 0.784314 rgBT /Overlo	1.2	1
94	Vacuum Fluctuations in Optical Metamaterials Containing Nonlinear Dielectrics. Acta Physica Polonica A, 2009, 116, 628-630.	0.2	1
95	Contactless Methods for Characterization of Mechanical Properties of Nanomembranes: An Overview of Methods. , 2011, , .		1
96	Nanofabrication of planar split ring resonators for negative refractive index metamaterials in the infrared range. Journal of the Serbian Chemical Society, 2006, 71, 695-703.	0.4	1
97	Methods of decreasing losses in optical metamaterials. Facta Universitatis - Series Electronics and Energetics, 2018, 31, 501-518.	0.6	1
98	A family of perforated submicrometer coreâ€“shell plasmonic particles bio-inspired by leafhopper brochosomes. Optical and Quantum Electronics, 2022, 54, .	1.5	1
99	Optimized Design of a Self-Biased Amplifier for Seizure Detection Supplied by Piezoelectric Nanogenerator: Metaheuristic Algorithms versus ANN-Assisted Goal Attainment Method. Micromachines, 2022, 13, 1104.	1.4	1
100	Modeling of composition profiles of mercury cadmium telluride liquid phase epitaxial double heterostructures. , 0, , .		0
101	Composition profiles versus growth pressure and temperature in epitaxial HgZnTe layers. Physica Status Solidi A, 1995, 152, 451-459.	1.7	0
102	Erratum to â€œa simple approximative method for determination of Auger 1 lifetime in degenerate narrow gap semiconductorsâ€“. Infrared Physics and Technology, 1995, 36, 819.	1.3	0
103	Transient response of HgCdTe Auger-suppressed magnetoconcentration photoconductors. , 0, , .		0
104	Analysis of radiation absorptance in silicon ultraviolet detector. , 0, , .		0
105	Simple quasi-3D photonic crystal planar optical waveguides. , 0, , .		0
106	Photonic crystal enhancement of auger-suppressed infrared photodetectors. AIP Conference Proceedings, 2001, , .	0.3	0
107	A consideration of fabrication-induced imperfections in photonic crystals for optical frequencies. , 0, , .		0
108	Ambient-temperature operation of nonequilibrium magnetoconcentration infrared detectors in InSb and HgCdTe. , 0, , .		0

#	ARTICLE	IF	CITATIONS
109	Method of microcantilever deflection measurement utilizing mechanochromic effect in photonic crystals. , 0, , .		0
110	A consideration of optical noise figures of adsorption-based nanophotonic sensors. , 2008, , .		0
111	Metal nanowire arrays with ultralow or negative effective permittivity for adsorption-based chemical sensing. , 2008, , .		0
112	Adsorption-desorption noise in plasmonic chemical/biological sensors in multiple analyte environment. Proceedings of SPIE, 2009, , .	0.8	0
113	Field effect transistor based on protons as charge carriers. Procedia Engineering, 2010, 5, 1368-1371.	1.2	0
114	Transparent conductive oxide nanoparticle-based layers for laminar plasmonic devices. , 2010, , .		0
115	Design of symmetric planar fishnet metamaterials for optical wavelength range. , 2010, , .		0
116	Analytical approach to lossy wave propagation through a graded interface containing negative index material. , 2011, , .		0
117	Plasmon-driven nondiffracting surface beaming. , 2011, , .		0
118	Surface waves in plasmonic anisotropic media. , 2012, , .		0
119	Transfer of nanomembranes from solution to a solid frame via reflow of low surface tension liquids. , 2012, , .		0
120	The poissonian nature of adsorption-desorption processes. , 2012, , .		0
121	Redshifting approach for nanoplasmonic enhancement of semiconductor infrared detectors. , 2012, , .		0
122	Designed surface modes propagating along hyperbolic metamaterials. , 2013, , .		0
123	Gradient-index infrared metamaterials based on metal-dielectric submicrometer pillar arrays. , 2013, , .		0
124	Nanoplasmonic chemical sensors. , 2014, , .		0
125	Lagergren kinetic model and multianalyte detection by plasmonic sensors. , 2014, , .		0
126	Plasmonic metamaterial with fishnet superlattice for enhanced chemical sensing. , 2014, , .		0



#	ARTICLE	IF	CITATIONS
127	Limits to optical chemical sensing fluctuations versus ultimate performance. , 2016, , .		0
128	Phase integral approach to wave propagation in continuously graded models of flat lenses. , 2017, , .		0
129	Tailorable effective optical response of dual-metal plasmonic crystals. , 2017, , .		0
130	Arrays of Bowtie Plasmonic Nanoantennas for Field Enhancement in MOEMS. , 2019, , .		0
131	Semiconductor-dielectric metasurfaces for low-loss field concentrators in the optical range. , 2019, , .		0
132	Modeling Noise and Stability of Affinity-Based MEMS, NEMS and NOEMS Sensors of Ternary Gas Mixtures. , 2019, , .		0
133	Optical field concentrator with low absorption metasurfaces based on planar silicon nanoantennas on silica. Solid State Electronics Letters, 2020, 2, 55-58.	1.0	0
134	AI Assisted Optimization of Unimorph Tapered Cantilever for Piezoelectric Energy Harvesting. , 2021, , .		0
135	Plasmonic Crystals with Conical Perforations as Multipurpose Optical Elements. , 2021, , .		0
136	Plasmonic waveguides based on synthetic nanomembranes. SPIE Newsroom, 0, , .	0.1	0
137	Dyakonov-like surface waves in semi-infinite metal-dielectric lattices. , 2012, , .		0
138	MEMS resonator mass loading noise model: The case of bimodal adsorbing surface and finite adsorbate amount. Facta Universitatis - Series Electronics and Energetics, 2021, 34, 367-380.	0.6	0