

# Marian Marciniak

## List of Publications by Year in descending order

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151  
papers

634  
citations

840776

11  
h-index

752698

20  
g-index

154  
all docs

154  
docs citations

154  
times ranked

473  
citing authors

#	ARTICLE	IF	CITATIONS
1	Accurate Analysis of Light Scattering and Absorption by an Infinite Flat Grating of Thin Silver Nanostrips in Free Space Using the Method of Analytical Regularization. IEEE Journal of Selected Topics in Quantum Electronics, 2013, 19, 9000108-9000108.	2.9	62
2	Analysis of lossy mode cut-off conditions in planar waveguides with semiconductor guiding layer. IEE Proceedings, Part J: Optoelectronics, 1993, 140, 247.	0.4	60
3	Effect of Periodicity in the Resonant Scattering of Light by Finite Sparse Configurations of Many Silver Nanowires. Plasmonics, 2014, 9, 389-407.	3.4	48
4	Applications of Ground Penetrating Radar in civil engineering &#x2014; COST action TU1208. , 2013, , .		37
5	Hybrid 1-D dielectric microcavity: Fabrication and spectroscopic assessment of glass-based sub-wavelength structures. Ceramics International, 2015, 41, 7429-7433.	4.8	22
6	Seeing the order in a mess: optical signature of periodicity in a cloud of plasmonic nanowires. Optics Express, 2014, 22, 28190.	3.4	21
7	Numerical and experimental analysis of copper particles velocity in low-pressure cold spraying process. Surface and Coatings Technology, 2015, 268, 230-240.	4.8	20
8	Realization of integrated Bragg reflectors in DANS-polymer waveguides. Journal of Lightwave Technology, 1993, 11, 1189-1195.	4.6	16
9	Nonlinear interactions in wavelength-multiplexed optical fibre telecommunication systems. Journal of Optics, 2000, 2, 319-326.	1.5	15
10	Non-linear optimization for multi-path source routing in obs networks. IEEE Communications Letters, 2007, 11, 1016-1018.	4.1	15
11	Performance Overview of the Offset Time Emulated OBS Network Architecture. Journal of Lightwave Technology, 2009, 27, 2751-2764.	4.6	15
12	Sensitivity of imaging properties of metal-dielectric layered flat lens to fabrication inaccuracies. Opto-electronics Review, 2010, 18, .	2.4	14
13	Grating Resonances on Periodic Arrays of Sub-wavelength Wires and Strips: From Discoveries to Photonic Device Applications. Springer Series in Optical Sciences, 2016, , 65-79.	0.7	14
14	Fabrication and optical properties of assembled gold nanoparticles film on elastomeric substrate. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2015, 482, 431-437.	4.7	13
15	Comparative Modeling of Infrared Fiber Lasers. Photonics, 2018, 5, 48.	2.0	11
16	Application of Coupled-Wave Wentzel-Kramers-Brillouin Approximation to Ground Penetrating Radar. Remote Sensing, 2018, 10, 22.	4.0	11
17	A comparison of different radio over fibre system concepts with regard to applications in mobile Internet and multimedia. , 0, , .		10
18	Radiation field propagation in low-contrast single-mode optical waveguides. Optical and Quantum Electronics, 1995, 27, 977-985.	3.3	9

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19	Counteracting of stimulated Brillouin scattering in externally modulated lightwave AM-CATV systems. , 0, , .		8
20	Wavelength-scale analysis of optical field localisation at plasmonic resonance in non-linear Kretschmann structure by the method of single expression. , 2010, , .		8
21	Design and fabrication of mechanochromic photonic crystals as strain sensor. Proceedings of SPIE, 2015, , .	0.8	8
22	Special issue of optical and quantum electronics on information photonics. Optical and Quantum Electronics, 2015, 47, 1-1.	3.3	7
23	Modeling of a discrete parabolic reflector made of sub-wavelength plasmonic wires. , 2013, , .		6
24	Metal-dielectric multilayer structure supporting surface plasmons: electromagnetic modelling by the method of single expression. Optical and Quantum Electronics, 2015, 47, 3-15.	3.3	6
25	Short-Term Scientific Missions on electromagnetic modelling and inversion techniques for Ground Penetrating Radar - COST Action TU1208. , 2016, , .		6
26	Reflection and transmission of a light on a dielectric boundary in a time domain. , 0, , .		5
27	Solving present and future problems in optical telecommunications with PBGs. AIP Conference Proceedings, 2001, , .	0.4	5
28	Optimizing the structure of optical temperature sensors on the base of slot and double-slot ring waveguides with liquid crystal filling. Optical Engineering, 2013, 53, 071802.	1.0	5
29	Rare-earth doped materials for optical waveguides. , 2015, , .		5
30	Challenges and future trends in fiber lasers. , 2016, , .		5
31	Solution of boundary problems in intensity-dependent nano-optics and quantum mechanics by the method of single expression. , 2017, , .		5
32	Electromagnetic energy flow in confined regions of evanescent waves: wavelength-scale analysis by the method of single expression. Optical and Quantum Electronics, 2019, 51, 1.	3.3	5
33	Unrepeated 240-km 64-QAM Transmission Using Distributed Raman Amplification over SMF Fiber. Applied Sciences (Switzerland), 2020, 10, 1433.	2.5	5
34	Routing Optimization in Optical Burst Switching Networks. , 2007, , 201-210.		5
35	Numerical Analysis of Optical Nonlinearities in Multispan DWDM Fibre Transmission Systems. , 2001, , 113-121.		5
36	Enhancement of Air-ground Matching by Means of a Chirped Multilayer Structure: Electromagnetic Modeling with the Method of Single Expression. Journal of Telecommunications and Information Technology, 2017, 3, 30-36.	0.4	5

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37	Light power division in a monomode Ti:LiNbO <sub>3</sub> waveguide Y-junction power-combiner-power-divider sequence. Optics Communications, 1991, 81, 20-22.	2.1	4
38	On retrieval of permittivity profile. , 0, , .		4
39	Optimization of the Structure of an Optical Vectoral Bend and Stress Sensor Based on a Three-Core Microstructured Fiber. Measurement Techniques, 2013, 56, 65-71.	0.6	4
40	Photonic glass-ceramics: consolidated outcomes and prospects. , 2015, , .		4
41	Reflection from 1D quasi-periodical structures. Optical and Quantum Electronics, 2000, 32, 1005-1012.	3.3	3
42	Long distance analog CATV link utilizing non-zero dispersion-shifted fiber. , 0, , .		3
43	New method of SBS counteracting in long distance analog CATV link. , 0, , .		3
44	Performance analysis of the simple prioritized buffering algorithm in optical packet switch for DiffServ assured forwarding. , 0, , .		3
45	Application of radio over fiber technology to enable converged optical and wireless next generation networking. , 2007, , .		3
46	Peculiarities of surface plasmon excitation in amplifying Kretschmann structure: Correct wavelength-scale analysis by the method of single expression. , 2011, , .		3
47	Waveguiding characteristics of SiO <sub>2</sub> /cover layer upon Kretschmann structure: Numerical analysis by the method of single expression. , 2011, , .		3
48	Brewster's angle polarizer design based on a gyrotropic double-periodic perforated layer. Optical and Quantum Electronics, 2014, 46, 779-790.	3.3	3
49	Glass-ceramics for photonics: Advances and perspectives. , 2014, , .		3
50	Short-term scientific missions on forward and inverse electromagnetic-scattering techniques for ground penetrating radar. , 2017, , .		3
51	Electric field sensing with liquid-crystal-filled slot waveguide microring resonators. Applied Optics, 2017, 56, 7629.	1.8	3
52	Towards an all-optical terabit network: the impact of photonic bandgap structure technology. , 0, , .		2
53	Development of IP/WDM optical networks. , 0, , .		2
54	Optical transparency in next generation IP over all-optical networks. , 0, , .		2

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55	QoS guarantees in IP optical networks using MPLS/MPLambdaS. , 0, , .		2
56	Design and optimisation of multimode 1d photonic band gap waveguide. Optical and Quantum Electronics, 2002, 34, 493-503.	3.3	2
57	A comparison of inner coding options for adaptive MIMO OFDM systems. , 0, , .		2
58	Reliability aspects of the future hybrid optical network and quality of service issues for real time and packet traffic. , 0, , .		2
59	Investigation of PMD in old optical fibres and cables and PMD effects on network upgrades to higher bit rates. , 0, , .		2
60	Optimised availability of transparent optical infrastructure for the next generation networking. , 0, , .		2
61	Reliability for Future Ubiquitous Network Societies Challenges and Opportunities. , 2006, , .		2
62	Next Generation Networking in Transparent Optical Networks - Challenges and Opportunities. , 2006, , .		2
63	Future Networks - beyond Next Generation Networking. , 2008, , .		2
64	Optical temperature sensor on the base of slot waveguide with LC filling. , 2012, , .		2
65	Surface plasmon interaction with amplifying MQWs in multilayer kretschmann structure: Wavelength-scale analysis by the method of single expression. , 2012, , .		2
66	Rare-earth doped optical fibers with nano-phase glass-ceramic structures. , 2016, , .		2
67	Single-frequency radiation from DBR fiber laser: Numerical analysis by the method of single expression. , 2016, , .		2
68	Electromagnetic analysis of single longitudinalmode operation of DBR fiber laser: Numerical simulation by the method of single expression. , 2016, , .		2
69	Universal expression for the Poynting vector applicable for evanescent waves: inherent output from the method of single expression. , 2018, , .		2
70	Results of numerical simulation of wavelength multiplexed transmission in non-linear optical fibre telecommunication systems. , 0, , .		1
71	Beam propagation method modelling of light propagation in optical waveguides. , 0, , .		1
72	Two-beam-propagation method algorithm for second-harmonic generation in dielectric planar waveguides. , 1999, , .		1

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73	IP/optical networks: the impact of optical transparency. , 0, , .		1
74	Optical gain enhancement in PBG structure with active n-i-p-i superlattice. , 0, , .		1
75	Transient reflection from a multilayer with a time jump in the sublayer permittivities. Microwave and Optical Technology Letters, 2001, 28, 274-277.	1.4	1
76	How transparent the future all-optical packet switched network should be?. , 0, , .		1
77	Nonlinear optical effects in one-dimensional photonic crystal heterostructure amplifiers. , 0, , .		1
78	COST Action 273 at the National Institute of Telecommunications. , 0, , .		1
79	Global optical and wireless networking - emerging opportunities for electromagnetic research. , 0, , .		1
80	Pre-simulated local-error method for modelling of light propagation in wavelength-division-multiplexed links. , 2007, , .		1
81	Nonlinearities in the reflection and transmission spectra of the photonic bandgap heterostructures with nâ€“iâ€“pâ€“i crystals. Optical and Quantum Electronics, 2007, 39, 491-499.	3.3	1
82	An optical model of a transmission-type vertical-cavity electro-absorption modulator on Si/SiO <sub>2</sub> for high-speed intra/inter-chip interconnects. , 2008, , .		1
83	Sub-wavelength photonics - challenges and research opportunities. , 2008, , .		1
84	Numerical analysis of impact of DBRs' outermost layers on optical characteristics of a surface-normal electro-absorption modulator by the method of single expression. , 2009, , .		1
85	Numerical modelling of Fabry-Perot microresonator based electro-optical modulator for microwave-photonic receiver. , 2011, , .		1
86	Radiatively coupled plasmons in the scattering of light by periodic grids of circular silver nanowires. , 2011, , .		1
87	Rayleigh anomalies in the E-polarized wave scattering by finite flat gratings of silver nanostrips or nanowires. , 2012, , .		1
88	Glass-ceramics for photonics: Laser material processing. , 2015, , .		1
89	Metalâ€“insulatorâ€“metal photomonitor for optical waveguides at telecom wavelengths. Applied Physics Express, 2016, 9, 122201.	2.4	1
90	Wavelength-scale analysis of influence of chirped DBRs on optical characteristics of multilayer photovoltaic cells. , 2016, , .		1

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91	Single- And Double-Mode Light Generation in DFB Fiber Laser: Wavelength-Scale Electromagnetic Modelling by the Method of Single Expression. , 2018, , .		1
92	Double-Barrier Resonant Tunneling in Nano-Optics and Quantum Mechanics: Wavelength-Scale Analysis by the Method of Single Expression. , 2019, , .		1
93	The method of single expression (MSE) as a prospective modeling tool for boundary value problems: an extension from nano-optics to quantum mechanics. Optical and Quantum Electronics, 2020, 52, 1.	3.3	1
94	Evolution of Optical Access Networks. Lecture Notes in Computer Science, 2009, , 97-131.	1.3	1
95	Modelling of Nonlinear Crosstalk in Optical Fibre Wavelength-Division Multiplexed Telecommunication Systems. Acta Physica Polonica A, 1999, 95, 859-867.	0.5	1
96	Routing Optimization in Optical Burst Switching Networks: a Multi-path Routing Approach. Texts in Theoretical Computer Science, 2009, , 163-178.	0.8	1
97	Experimental Analysis of a Directive Antenna with a 3D-EBC Superstrate. Journal of Telecommunications and Information Technology, 2017, 3, 113-124.	0.4	1
98	The Optimum-efficiency Beam Multiplier for an Arbitrary Number of Output Beams and Power Distribution. Journal of Telecommunications and Information Technology, 2017, 3, 94-98.	0.4	1
99	International standards for optical wireless communications: state-of-the-art and future directions. , 2017, , .		1
100	Dynamics of oxide confinement vertical cavity semiconductor lasers. , 0, , .		0
101	Transmission performance of a 1 Å– 2 Ti:LiNbO3 strip waveguide directional coupler. Optics Communications, 1990, 79, 411-415.	2.1	0
102	Analysis of reflection coefficient dependence of fibre Bragg grating on index modulation profile. , 0, , .		0
103	Achievements in PBG structures modelling and fabrication. , 0, , .		0
104	Photonic crystal theory, modelling and technology. , 0, , .		0
105	Optimisation of short-haul DWDM fibre telecommunication systems in presence of nonlinear optical phenomena. , 0, , .		0
106	Nonlinear interactions in short-haul DWDM optical fibre telecommunication system. , 0, , .		0
107	Modelling and optimization of planar waveguide with layered cladding. , 0, , .		0
108	Impact of apodisation on fiber Bragg grating reflection and phase responses. , 0, , .		0

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109	Penetration of electromagnetic signals into transparent inhomogeneous time-varying medium. , 0, , .		0
110	Optical packet router with QoS capabilities: introductory study of computer simulator design. , 0, , .		0
111	Propagation of the radiation field excited on discontinuities of optical waveguides. Optical and Quantum Electronics, 2002, 34, 607-619.	3.3	0
112	Numerical analysis of truncated elliptic lenses for optical and sub-mm wave receivers. , 0, , .		0
113	Nonlinear PCF as dispersion compensator in high-bitrate fiber links. , 0, , .		0
114	Simulation and optimization of spectral-efficient DWDM systems. , 0, , .		0
115	<title>Reliability aspects of the future hybrid optical network and quality of service issues for real time and packet traffic</title>. , 2004, , .		0
116	Maximising efficiency of future next generation optical networking. , 0, , .		0
117	TRANSPARENCY LIMITS IN OPTICAL FIBRES AND NETWORKS. , 2006, , .		0
118	Transparent Optical Fiber Communications for Real-Time, Packet, and Wireless Traffic. , 2006, , .		0
119	<title>Mode birefringence in multi-core microstructured fibers</title>. , 2007, , .		0
120	&lt;title&gt;Numerical algorithm for the analysis of linear and nonlinear microstructure fibres&lt;/title&gt;. Proceedings of SPIE, 2007, , .	0.8	0
121	Finite Difference Beam Propagation Method Applied to Photonic Crystal Fibres. , 2007, , .		0
122	Accurate PMD Measurements Using OSA and Polarization Scrambling. , 2007, , .		0
123	Advances in sub-wavelength photonics. , 2008, , .		0
124	Sub-wavelength information photonics: Materials, phenomena, and functional devices. , 2008, , .		0
125	SPM nonlinear noise compensation in multilevel phase-modulated optical systems. , 2008, , .		0
126	Matrix infrared-visible image converter based on waveguide microring resonators. , 2008, , .		0

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127	Introduction to the Feature Section on Nonlinear Dynamics in Photonic Systems. IEEE Journal of Quantum Electronics, 2009, 45, 1365-1366.	1.9	0
128	Review of the results of the COST MP0702 exercise on the sensitivity of metal-dielectric layered flat lens to fabrication inaccuracies. , 2011, , .		0
129	Vector bend sensor on the base of three-core microstructured fiber. , 2011, , .		0
130	Numerical analysis of operation of metallic electrodes in Fabry-Perot electro-optical modulator of microwave-photonic receiver. , 2012, , .		0
131	Comparison of resonance optical scattering of plane waves by infinite gratings of silver cylinders and strips. , 2012, , .		0
132	Scattering of a three- dimensional Gaussian beam with circular cross section from a gyrotropic slab. , 2012, , .		0
133	Grating resonances as an alternative to plasmon resonances in nanophotonics applications. , 2013, , .		0
134	Periodicity assisted scattering and absorption of light by finite layered gratings of silver nanowires. , 2013, , .		0
135	Role of periodicity in the scattering by a cloud of randomly located plasmonic nanowires. , 2013, , .		0
136	Optimization of gyrotropic double-periodic perforated layer for Brewster's angle polarizer design. , 2013, , .		0
137	Analysis of orthogonally polarized modes in curved slot and double-slot waveguides. , 2013, , .		0
138	Red photonic glasses and confined structures. Bulletin of the Polish Academy of Sciences: Technical Sciences, 2014, 62, 647-653.	0.8	0
139	Metal-dielectric layered structure supporting surface plasmons: Numerical modelling by the method of single expression. , 2014, , .		0
140	Microcavity with DBR mirrors for efficient THz emission from optically pumped GaP layer: Numerical analysis by the method of single expression. , 2015, , .		0
141	Beam-Propagating Method and Physics behind it - revisited. , 2016, , .		0
142	Electric field sensor on the base of horizontal and vertical slot waveguide ring microresonators with LC filling. , 2017, , .		0
143	General Expression of the Poynting Vector Appropriate for Evanescent Wave Region: Intrinsic Function in the Method of Single Expression. , 2018, , .		0
144	Free-Space Optical Communications - Standardisation Issues. , 2018, , .		0

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145	Single-Mode Light Generation in DFB Fiber Laser: Wavelength-Scale Electromagnetic Modelling by the Method of Single Expression. , 2018, , .		0
146	GPR Probing of Smoothly Layered Subsurface Medium: 3D Analytical Model. , 2020, , .		0
147	Numerical modeling in nonlinear optics: accumulation of the products of nonlinear optical interactions in multispan fiber transmission systems. , 2001, , .		0
148	Multi-Objective Evolutionary Optimization of Aperiodic Symmetrical Linear Arrays. Journal of Telecommunications and Information Technology, 2017, 3, 79-87.	0.4	0
149	Influence of Chirped DBR Reflector on the Absorption Efficiency of Multi-nanolayer Photovoltaic Structures: Wavelength-scale Analysis by the Method of Single Expression. Journal of Telecommunications and Information Technology, 2017, 3, 99-106.	0.4	0
150	Comparative study of infrared fiber laser models. , 2018, , .		0
151	Stop-band optical filters protecting from harmful infrared radiation: wavelength-scale electromagnetic modelling by the method of single expression. Optical and Quantum Electronics, 2022, 54, 1.	3.3	0