

# Jiri Ctyroky

## List of Publications by Year in descending order

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152  
papers

2,818  
citations

186265

28  
h-index

182427

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152  
all docs

152  
docs citations

152  
times ranked

1874  
citing authors

#	ARTICLE	IF	CITATIONS
1	Complex spectral filters in silicon waveguides based on cladding-modulated Bragg gratings. Optics Express, 2021, 29, 15867.	3.4	20
2	Flat metal-dielectric grating with 100% retro-diffraction efficiency: rigorous theory. Journal of Optics (United Kingdom), 2021, 23, 015601.	2.2	0
3	Coupling of waveguide mode and graphene plasmons. EPJ Web of Conferences, 2021, 255, 07002.	0.3	0
4	Graphene on an optical waveguide: comparison of simulation approaches. Optical and Quantum Electronics, 2020, 52, 1.	3.3	11
5	Silicon waveguides with graphene: coupling of waveguide mode to surface plasmons. Journal of Optics (United Kingdom), 2020, 22, 095801.	2.2	5
6	Narrowband Bragg filters based on subwavelength grating waveguides for silicon photonic sensing. Optics Express, 2020, 28, 37971.	3.4	22
7	Broadly tunable laser based on novel metallic resonant leaky-mode diffraction grating. Optics Express, 2020, 28, 4340.	3.4	3
8	High performance silicon photonic devices based on practical metamaterials. , 2019, , .		1
9	Bragg filter bandwidth engineering in subwavelength grating metamaterial waveguides. Optics Letters, 2019, 44, 1043.	3.3	41
10	Reflectivity of Superimposed Bragg Gratings Induced by Longitudinal Mode Instabilities in Fiber Lasers. IEEE Journal of Selected Topics in Quantum Electronics, 2018, 24, 1-8.	2.9	30
11	Leaky-mode resonant gratings on a fibre facet. Optical and Quantum Electronics, 2018, 50, 1.	3.3	5
12	Novel Effects and Functionalities in Subwavelength Photonic and Plasmonic (Nano)Structures. , 2018, , .		0
13	Design of narrowband Bragg spectral filters in subwavelength grating metamaterial waveguides. Optics Express, 2018, 26, 179.	3.4	74
14	Self-sweeping of laser wavelength and associated mode instabilities in fiber lasers. , 2017, , .		1
15	Anti-reflection and polarizing photonic structures for high-power fiber applications. Proceedings of SPIE, 2017, , .	0.8	0
16	Disorder effects in subwavelength grating metamaterial waveguides. Optics Express, 2017, 25, 12222.	3.4	31
17	Nonreciprocal waveguiding structures for THz region based on InSb. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2017, 34, 892.	1.5	11
18	Magneto-optical waveguiding InSb-based structures with nonreciprocal properties. , 2017, , .		0

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19	Fiber facet gratings for high power fiber lasers. , 2017, , .		0
20	High-power fiber laser with a polarizing diffraction grating milled on the facet of an optical fiber. Optics Express, 2016, 24, 30225.	3.4	7
21	Study on one-way guiding InSb structures for THz spectral region. , 2016, , .		0
22	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
23	Analysis of the modes of a core-shell plasmonic nanowire laser with a silver core. , 2015, , .		0
24	Simulations of waveguide Bragg grating filters based on subwavelength grating waveguide. Proceedings of SPIE, 2015, , .	0.8	6
25	RCWA/aRCWA - An efficient and diligent workhorse for nanophotonic/nanoplasmonic simulations - can it work even better?. , 2015, , .		2
26	Nonlinear nanophotonic and nanoplasmonic directional couplers: comparison of modelling methods. Optical and Quantum Electronics, 2015, 47, 3201-3212.	3.3	5
27	Dispersion properties of coupled waveguides with loss and gain: a full-vectorial analysis. Optical and Quantum Electronics, 2014, 46, 465-475.	3.3	10
28	Physics and advanced simulations of photonic and plasmonic structures. , 2014, , .		1
29	Finite comb-like silver nanostrip grating in the optical range: Interplay of resonances. , 2013, , .		0
30	Mathematical simulation of optical nanoantenna based on a comb-like finite nanostrip grating. , 2013, , .		0
31	Grating resonances on periodic arrays of sub-wavelength wires and strips: Historical narrative and possible applications. , 2013, , .		0
32	Advanced photonic and plasmonic waveguide nanostructures analyzed with Fourier modal methods. , 2013, , .		3
33	Resonance effects in the optical antennas shaped as finite comb-like gratings of noble-metal nanostrips. , 2013, , .		15
34	Analysis of couplers between photonic nanowires and subwavelength grating waveguides. Proceedings of SPIE, 2013, , .	0.8	5
35	Application of Fourier modal methods to simulating novel plasmonic guiding nanostructures. , 2012, , .		1
36	Diamond photonic crystal slab: Leaky modes and modified photoluminescence emission of surface-deposited quantum dots. Scientific Reports, 2012, 2, 914.	3.3	19

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37	Novel types of plasmonic waveguiding structures. Proceedings of SPIE, 2012, , .	0.8	2
38	3-D Bidirectional Propagation Algorithm Based on Fourier Series. Journal of Lightwave Technology, 2012, 30, 3699-3708.	4.6	22
39	Modal methods for 3D modelling of advanced photonic structures. , 2012, , .		1
40	Preparation and characterization of bottle optical microresonators with circular and hexagonal cross-sections. , 2011, , .		0
41	Photonic waveguiding structures with loss and gain. Proceedings of SPIE, 2011, , .	0.8	0
42	Optical Theorem Helps Understand Thresholds of Lasing in Microcavities With Active Regions. IEEE Journal of Quantum Electronics, 2011, 47, 20-30.	1.9	93
43	Mode solvers for very thin long-range plasmonic waveguides. Optical and Quantum Electronics, 2011, 42, 557-570.	3.3	6
44	Comparison of 2D and 3D Fourier modal methods for modeling subwavelength-structured silicon waveguides. , 2011, , .		9
45	Recent developments in Fourier modal methods for modeling guided-wave devices. , 2011, , .		0
46	Bottle Microresonators Fabricated by Shaping Optical Fibers with a Beam of a CO2 Laser. Sensor Letters, 2011, 9, 2279-2282.	0.4	1
47	Surface plasmons on nanostructured metal-dielectric surfaces. Proceedings of SPIE, 2010, , .	0.8	0
48	Surface waves at the interface with an antisymmetric gain-loss profile. , 2010, , .		0
49	Waveguide structures with antisymmetric gain/loss profile. Optics Express, 2010, 18, 21585.	3.4	61
50	Low-threshold lasing eigenmodes of an infinite periodic chain of quantum wires. Optics Letters, 2010, 35, 3634.	3.3	55
51	Fourier Series-Based Bidirectional Propagation Algorithm With Adaptive Spatial Resolution. Journal of Lightwave Technology, 2010, 28, 2969-2976.	4.6	28
52	Plasmon and structure resonances in the scattering of light by a periodic chain of silver nanocylinders. , 2010, , .		1
53	Optical fields of the lowest modes in a uniformly active thin subwavelength spiral microcavity. Optics Letters, 2009, 34, 3773.	3.3	15
54	Efficient Boundary Conditions for Bidirectional Propagation Algorithm Based on Fourier Series. Journal of Lightwave Technology, 2009, 27, 2575-2582.	4.6	17

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55	Nystr&#x00F6;m-method analysis of active spiral subwavelength 2-D microresonators. , 2009, , .		0
56	Sensitivity Characteristics of Long-Period Gratings Written with a CO <sub>2</sub> Laser in Fiber with Parabolic-Index Cladding. Sensor Letters, 2009, 7, 979-983.	0.4	1
57	Bend sensing with long-period fiber gratings in capillaries embedded in structures. Materials Science and Engineering C, 2008, 28, 716-721.	7.3	6
58	Analysis of bending effects in long period gratings in fibres with parabolic refractive index profile of the cladding. Materials Science and Engineering C, 2008, 28, 739-743.	7.3	0
59	Light Advancement and Delay by Linear Filters With Close to Zero Resonant Transmittance. Journal of Lightwave Technology, 2008, 26, 3708-3713.	4.6	0
60	Lasing frequencies and thresholds of the dipole supermodes in an active microdisk concentrically coupled with a passive microring. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2008, 25, 2884.	1.5	35
61	Er&#x00E9;Yb Waveguide Amplifiers in Novel Silicate Glasses. IEEE Journal of Quantum Electronics, 2008, 44, 536-541.	1.9	19
62	Nystrom-type technique for numerical analysis of lasing spectra and thresholds in arbitrary-shaped active 2-D microcavities. , 2008, , .		0
63	Optical theorem helps understand thresholds of lasing in open semiconductor microcavities. , 2008, , .		0
64	New aspects of the use of Optical Theorem in the analysis of microcavity lasers. , 2008, , .		0
65	Mode solvers and mode expansion methods for integrated photonics. , 2008, , .		0
66	Lasing spectra and thresholds of supermodes in an active microdisk assisted with a passive microring in view of the mode overlap coefficients. , 2008, , .		0
67	A robust full-vectorial mode solver for metalized fiber taper. , 2008, , .		0
68	Critical comparison of three modal methods: bidirectional eigenmode expansion propagation method, aperiodic rigorous coupled mode analysis, and harmonic expansion method. , 2008, , .		2
69	Bend insensitive long-period gratings written with a CO2 laser in fiber with parabolic-index cladding. Proceedings of SPIE, 2008, , .	0.8	0
70	Long-period gratings with high insensitivity to external refractive index inscribed by using a CO 2 laser in fibers with parabolic-index cladding. , 2007, , .		0
71	Dispersion properties of silicon nanophotonic waveguides investigated with Fourier optics. Optics Letters, 2007, 32, 2723.	3.3	28
72	Improved Bidirectional-Mode Expansion Propagation Algorithm Based on Fourier Series. Journal of Lightwave Technology, 2007, 25, 2321-2330.	4.6	21

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73	Transmission properties and band structure of a segmented dielectric waveguide for the terahertz range. Optics Communications, 2007, 273, 99-104.	2.1	9
74	Fabrication and characterization of channel optical waveguides in Er/Yb-doped silicate glasses. Optical Materials, 2007, 30, 457-461.	3.6	7
75	Dual resonance in a waveguide-coupled ring microresonator. Optical and Quantum Electronics, 2007, 38, 781-797.	3.3	42
76	Linear and Nonlinear Propagation in Microring Resonators. , 2007, , .		0
77	<title>Characterization of optical waveguides with very different refractive-index contrasts</title>. , 2006, , .		2
78	<title>Mode expansion and propagation method based on eigenmodes of a parallel-plate waveguide</title>. , 2006, 6180, 99.		0
79	<title>Novel optical fibers for the inscription of long-period gratings</title>. , 2006, 6180, 194.		0
80	Analysis of a long-period grating inscribed in the core of a fibre with inverse parabolic-index cladding. Materials Science and Engineering C, 2006, 26, 431-435.	7.3	3
81	Temperature sensitivity of long-period gratings inscribed with a CO2 laser in optical fiber with graded-index cladding. Sensors and Actuators B: Chemical, 2006, 119, 642-650.	7.8	13
82	A Simple Bi-directional Mode Expansion Propagation Algorithm Based on Modes of a Parallel-plate Waveguide. Optical and Quantum Electronics, 2006, 38, 45-62.	3.3	13
83	Cylindrical integrated optical microresonators: Modeling by 3-D vectorial coupled mode theory. Optics Communications, 2005, 256, 46-67.	2.1	38
84	Field modeling of circular microresonators by film mode matching. IEEE Journal of Selected Topics in Quantum Electronics, 2005, 11, 217-223.	2.9	36
85	Analytic approach to dielectric optical bent slab waveguides. Optical and Quantum Electronics, 2005, 37, 37-61.	3.3	75
86	Evaluation of the length dependence of the pump-depleted Cerenkov SHG. , 2004, , .		0
87	Tunability of Polymeric Ring Microresonators. AIP Conference Proceedings, 2004, , .	0.4	0
88	Waveguide Diagnostics by a Tunable Semiconductor Laser. AIP Conference Proceedings, 2004, , .	0.4	0
89	Ring microresonator as a photonic structure with complex eigenfrequency. Optical and Quantum Electronics, 2004, 36, 259-269.	3.3	24
90	The 2003 International Workshop on Optical Waveguide Theory and Numerical Modelling. Optical and Quantum Electronics, 2004, 36, 1-3.	3.3	0

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91	Vectorial Eigenmode Solver for Bent Waveguides Based on Mode Matching. IEEE Photonics Technology Letters, 2004, 16, 2057-2059.	2.5	30
92	Guided-Wave Optical Microresonators: Calculation of Eigenmodes. AIP Conference Proceedings, 2004, , ,	0.4	4
93	Surface plasmon resonance sensor based on a single-mode polarization-maintaining optical fiber. Sensors and Actuators B: Chemical, 2003, 90, 236-242.	7.8	226
94	Evaluation of cerenkov second harmonic generation in planar waveguides in the fourier domain. Journal of Lightwave Technology, 2003, 21, 299-304.	4.6	3
95	Exchangeable grating couplers for integrated optics. , 2003, , .		0
96	Bragg waveguide grating as a 1D photonic band gap structure: COST 268 modelling task. Optical and Quantum Electronics, 2002, 34, 455-470.	3.3	33
97	Photonic bandgap structures in planar waveguides. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2001, 18, 435.	1.5	28
98	Frequency doubling in the Cerenkov regime utilizing an abnormal reflecting mirror structure. , 2001, 4350, 154.		0
99	Novel approach to surface plasmon resonance multichannel sensing. , 2001, 4416, 86.		14
100	Abnormal reflecting mirror structures for intra-cavity ÅCerenkov second-harmonic generation. Applied Physics B: Lasers and Optics, 2001, 73, 541-545.	2.2	1
101	Novel spectral fiber optic sensor based on surface plasmon resonance. Sensors and Actuators B: Chemical, 2001, 74, 106-111.	7.8	230
102	On the efficiency of the second harmonic generation in optical waveguides: TM case. Optical and Quantum Electronics, 2001, 33, 541-559.	3.3	4
103	Surface plasmon resonance biosensor based on integrated optical waveguide. Sensors and Actuators B: Chemical, 2001, 76, 8-12.	7.8	250
104	Advances in development of miniature fiber optic surface plasmon resonance sensors. , 2001, , .		3
105	On the efficiency of small-angle ÅCerenkov second harmonic generation in optical waveguides. Optical and Quantum Electronics, 2000, 32, 799-818.	3.3	7
106	Separation of refractive index and temperature measurements using surface plasmon-coupled fiber grating. , 2000, , .		0
107	Miniature fiber optic surface plasmon resonance biosensors. , 1999, , .		0
108	<title>Modified inverted-graded-index fibers for evanescent-wave chemical sensing</title>. , 1999, 3860, 443.		4

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109	Single-mode optical fiber surface plasmon resonance sensor. Sensors and Actuators B: Chemical, 1999, 54, 74-79.	7.8	168
110	Theory and modelling of optical waveguide sensors utilising surface plasmon resonance. Sensors and Actuators B: Chemical, 1999, 54, 66-73.	7.8	92
111	Modelling of the surface plasmon resonance waveguide sensor with Bragg grating. Optical and Quantum Electronics, 1999, 31, 927-941.	3.3	36
112	Waveguide Bragg grating as a 1D photonic bandgap structure. , 1999, 4016, 92.		1
113	<title>Detection of refractive-index changes by using a sensing fiber with an inverted parabolic index profile</title>. , 1999, , .		5
114	Modified graded-index fibers for chemical sensing. , 1999, , .		0
115	Fiber optic surface plasmon resonance sensor with a Bragg grating. , 1999, , .		0
116	Analysis of a deep waveguide Bragg grating. Optical and Quantum Electronics, 1998, 30, 343-358.	3.3	55
117	Inverted-graded index fiber structures for evanescent-wave chemical sensing. Sensors and Actuators B: Chemical, 1998, 51, 340-347.	7.8	15
118	Miniaturization of fiber optic surface plasmon resonance sensor. Sensors and Actuators B: Chemical, 1998, 51, 311-315.	7.8	115
119	A COST 240 benchmark test for beam propagation methods applied to an electrooptical modulator based on surface plasmons. Journal of Lightwave Technology, 1998, 16, 1921-1927.	4.6	6
120	Surface plasmon resonance sensors using optical waveguides. , 1997, , .		0
121	<title>Novel surface plasmon resonance sensor based on single-mode optical fiber</title>. , 1997, , .		11
122	Tuning of spectral operation range of a waveguide surface plasmon resonance sensor. Electronics Letters, 1997, 33, 1246.	1.0	50
123	Interaction between fiber modes and surface plasmon waves:â€™s spectral properties. Optics Letters, 1997, 22, 1403.	3.3	36
124	A surface plasmon resonance based integrated optical sensor. Sensors and Actuators B: Chemical, 1997, 39, 286-290.	7.8	88
125	A comparison between different propagative schemes for the simulation of tapered step index slab waveguides. Journal of Lightwave Technology, 1996, 14, 1557-1569.	4.6	22
126	Wave Propagation in a Waveguide with a Balance of Gain and Loss. , 1996, , .		10



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127	Modelling of self-aligned total internal reflection waveguide mirrors: an interlaboratory comparison. <i>Optical and Quantum Electronics</i> , 1995, 27, 935-942.	3.3	6
128	Influence of optical fibers on the spectrum of transmitted light-emitting-diode radiation. <i>Applied Optics</i> , 1995, 34, 4312.	2.1	1
129	Frequency Conversion in Ti:LiNbO <sub>3</sub> Channel Waveguides. , 1995, , 407-413.		0
130	Analysis of a directional coupler by coupled modes of a single waveguide. <i>Optics Letters</i> , 1994, 19, 1621.	3.3	8
131	<title>Attenuation of light in polymeric Langmuir-Blodgett and spin-coated films</title>. , 1994, , .		0
132	<title>Bidirectional beam propagation modeling of photonic structures based on mode expansion and matching</title>. , 1994, , .		0
133	Analysis of Polarization Effects in Near-Z-Axis Ti:LiNbO <sub>3</sub> Devices. <i>Journal of Optical Communications</i> , 1993, 14, .	4.7	2
134	Model of Ti: LiNbO <sub>3</sub> Two-Mode-Interference Polarization-Independent Switch and Polarization Splitter. <i>Journal of Optical Communications</i> , 1992, 13, .	4.7	1
135	Two-mode-interference Ti:LiNbO <sub>3</sub> electro-optic polarisation-independent switch or polarisation splitter. <i>Electronics Letters</i> , 1991, 27, 965-966.	1.0	6
136	Guided-wave Electro-optic X-type Switches: Symmetry, Switching Characteristics and Cross-talk. <i>Journal of Modern Optics</i> , 1988, 35, 1007-1015.	1.3	2
137	Thin-film polariser for Ti:LiNbO <sub>3</sub> waveguides at $\lambda = 1.31\frac{1}{4}\mu\text{m}$ . <i>Electronics Letters</i> , 1986, 22, 756.	1.0	20
138	Voltage-Length Product of X and Z-Cut Ti: LiNbO <sub>3</sub> Directional Coupler and BOA Switches: A Comparison. <i>Journal of Optical Communications</i> , 1986, 7, .	4.7	7
139	3-D analysis of LiNbO <sub>3</sub> : Ti channel waveguides and directional couplers. <i>IEEE Journal of Quantum Electronics</i> , 1984, 20, 400-409.	1.9	53
140	Photorefractive effect in optical waveguides made of different cuts of lithium niobate. <i>Soviet Journal of Quantum Electronics</i> , 1983, 13, 1536-1538.	0.1	1
141	Refractive-index profile measurement of highly multimode planar waveguides by guided-beam tracking. <i>Optics Letters</i> , 1982, 7, 552.	3.3	7
142	Generalized WKB method for the analysis of light propagation in inhomogeneous anisotropic optical waveguides. <i>IEEE Journal of Quantum Electronics</i> , 1981, 17, 1064-1070.	1.9	16
143	Comments on "Approximate calculation of leaky-mode loss coefficients for Ti-diffused LiNbO <sub>3</sub> waveguides". <i>IEEE Journal of Quantum Electronics</i> , 1980, 16, 1287-1288.	1.9	3
144	Novel beam-to-waveguide coupler for LiNbO <sub>3</sub> optical waveguides. <i>Electronics Letters</i> , 1979, 15, 519.	1.0	0

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145	WKB analysis of guided and semileaky modes in graded-index anisotropic optical waveguides. Optics Communications, 1979, 28, 59-63.	2.1	7
146	On the accuracy of WKB analysis of TE and TM modes in planar graded-index waveguides. Optics Communications, 1978, 25, 49-52.	2.1	47
147	Guided and semileaky modes in anisotropic optical waveguides of the LiNbO3 type. Optics Communications, 1978, 27, 353-357.	2.1	24
148	Analysis and Design of a Flat Transducer Array Acousto-optic Deflector with Respect to the Second-order Diffraction. Optica Acta, 1978, 25, 1081-1086.	0.7	0
149	Coupled-mode theory of Bragg diffraction in the presence of multiple internal reflections. Optics Communications, 1976, 16, 259-261.	2.1	10
150	On the Propagation of Wave Beams in Anisotropic Media. Optica Acta, 1975, 22, 435-441.	0.7	2
151	Analysis of hybrid dielectric-plasmonic slot waveguide structures with 3D Fourier Modal Methods. Journal of the European Optical Society-Rapid Publications, 0, 8, .	1.9	18
152	Comment on "Photonic integrated circuits with bound states in the continuum". Optica, 0, , .	9.3	2