

Krishnamoorthy Senthilnathan

List of Publications by Year in descending order

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92
papers

1,183
citations

471509

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434195

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93
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docs citations

93
times ranked

976
citing authors

#	ARTICLE	IF	CITATIONS
1	Graphene-Based Conducting Metal Oxide Coated D-Shaped Optical Fiber SPR Sensor. IEEE Photonics Technology Letters, 2015, 27, 2437-2440.	2.5	117
2	Recent Advances in Plasmonic Sensor-Based Fiber Optic Probes for Biological Applications. Applied Sciences (Switzerland), 2019, 9, 949.	2.5	99
3	Studies on structural and optical properties of ZrO ₂ nanopowder for opto-electronic applications. Journal of Alloys and Compounds, 2017, 694, 556-559.	5.5	91
4	Design and Analysis of Surface-Plasmon-Resonance-Based Photonic Quasi-Crystal Fiber Biosensor for High-Refractive-Index Liquid Analytes. IEEE Journal of Selected Topics in Quantum Electronics, 2019, 25, 1-9.	2.9	78
5	Robust pedestal-free pulse compression in cubic-quintic nonlinear media. Physical Review A, 2008, 78, .	2.5	67
6	Nearly chirp- and pedestal-free pulse compression in nonlinear fiber Bragg gratings. Journal of the Optical Society of America B: Optical Physics, 2009, 26, 432.	2.1	56
7	A study on structural and optical properties of Mn- and Co-doped SnO ₂ nanocrystallites. Materials Chemistry and Physics, 2010, 124, 1046-1050.	4.0	41
8	Modulational instability in fiber Bragg grating with non-Kerr nonlinearity. IEEE Journal of Quantum Electronics, 2005, 41, 789-796.	1.9	37
9	A Surface Plasmon Resonance Bio-Sensor Based on Dual Core D-Shaped Photonic Crystal Fibre Embedded With Silver Nanowires for Multisensing. IEEE Sensors Journal, 2021, 21, 76-84.	4.7	36
10	Efficient Pulse Compression Using Tapered Photonic Crystal Fiber at 850 nm. IEEE Journal of Quantum Electronics, 2010, 46, 1795-1803.	1.9	33
11	Designing a Biosensor Using a Photonic Quasi-Crystal Fiber. IEEE Sensors Journal, 2016, 16, 2425-2430.	4.7	31
12	All-normal dispersion passively mode-locked Yb-doped fiber laser using MoS ₂ PVA saturable absorber. Laser Physics, 2016, 26, 055103.	1.2	28
13	High sensitive D-shaped photonic crystal fiber sensor with V-groove analyte channel. Optik, 2020, 213, 164779.	2.9	28
14	Surface Plasmon Resonance: Physics and Technology. Current Science, 2018, 115, 56.	0.8	24
15	Modeling Self-Similar Optical Pulse Compression in Nonlinear Fiber Bragg Grating Using Coupled-Mode Equations. Journal of Lightwave Technology, 2011, 29, 1293-1305.	4.6	23
16	Cobalt Metal ion Doped Cerium Oxide (Co-CeO ₂) Nanoparticles Effect Enhanced Photocatalytic Activity. MRS Advances, 2020, 5, 2503-2515.	0.9	20
17	Modulational instability in a fibre and a fibre Bragg grating. Journal of Optics B: Quantum and Semiclassical Optics, 2004, 6, S436-S452.	1.4	19
18	High sensitivity photonic crystal fiber-based refractive index microbiosensor. Optical Fiber Technology, 2018, 46, 88-94.	2.7	17

#	ARTICLE	IF	CITATIONS
19	Visible to near infrared highly sensitive microbiosensor based on surface plasmon polariton with external sensing approach. Results in Physics, 2019, 15, 102590.	4.1	16
20	Periodic waves in fiber Bragg gratings. Physical Review E, 2008, 77, 026602.	2.1	15
21	Pedestal free pulse compression of chirped optical solitons. Optics Communications, 2012, 285, 1449-1455.	2.1	14
22	Influence of the Sub-Peak of Secondary Surface Plasmon Resonance Onto the Sensing Performance of a D-Shaped Photonic Crystal Fibre Sensor. IEEE Sensors Journal, 2021, 21, 33-42.	4.7	14
23	Solitons in Bragg gratings with saturable nonlinearities. Journal of the Optical Society of America B: Optical Physics, 2007, 24, 1458.	2.1	13
24	Generation of Bragg solitons through modulation instability in a Bragg grating structure. Chaos, 2005, 15, 037109.	2.5	12
25	Bright solitons on a cnoidal wave background for the inhomogeneous nonlinear Schrödinger equation. Journal of Physics B: Atomic, Molecular and Optical Physics, 2008, 41, 025401.	1.5	12
26	Ultra-thin polarization independent broadband terahertz metamaterial absorber. Frontiers of Optoelectronics, 2021, 14, 288-297.	3.7	12
27	Dissipative Solitons in Coupled Complex Ginzburg-Landau Equations. Journal of the Physical Society of Japan, 2009, 78, 084001.	1.6	11
28	Designing a Broadband Terahertz Half-Wave Plate Using an Anisotropic Metasurface. Journal of Infrared, Millimeter, and Terahertz Waves, 2019, 40, 500-515.	2.2	11
29	Bright and dark Bragg solitons in a fiber Bragg grating. IEEE Journal of Quantum Electronics, 2003, 39, 1492-1497.	1.9	10
30	Photon condensation: A new paradigm for Bose-Einstein condensation. Frontiers of Physics, 2016, 11, 1.	5.0	10
31	Symmetry-breaking instability in gap soliton. Optics Communications, 2003, 227, 295-299.	2.1	9
32	Dynamics of nonlinear pulse propagation through a fiber Bragg grating with linear coupling. Journal of the Optical Society of America B: Optical Physics, 2003, 20, 366.	2.1	9
33	Generation of a Train of Ultrashort Pulses Near-Infrared Regime in a Tapered Photonic Crystal Fiber Using Raised-Cosine Pulses. IEEE Photonics Journal, 2012, 4, 1420-1437.	2.0	9
34	Waveguiding properties of a silicon nanowire embedded photonic crystal fiber. Optical Materials, 2014, 36, 958-964.	3.6	8
35	D-shaped plasmonic sensor using a molybdenum disulfide doped photonic crystal fiber. IOP Conference Series: Materials Science and Engineering, 2017, 263, 052031.	0.6	8
36	Chirped self-similar solitary waves for the generalized nonlinear Schrödinger equation with distributed two-power-law nonlinearities. Physical Review E, 2019, 100, 042208.	2.1	8

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37	Generation of self-induced-transparency gap solitons by modulational instability in uniformly doped fiber Bragg gratings. <i>Physical Review A</i> , 2010, 81, .	2.5	7
38	Exploring a photonic quasi-crystal fiber for enhancing the efficiency of second harmonic generation: Modeling and analysis. <i>Optical Materials</i> , 2013, 35, 2132-2137.	3.6	7
39	Sensitivity analysis of steering-wheel gas sensor against diverse core air hole sizes and core materials in terahertz wave band. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017, 263, 052036.	0.6	7
40	Influences of Ti ⁴⁺ ion on dielectric property in perovskite structure of La ferrite (LaFe _{1-x} Ti _x O ₃). <i>Journal of Alloys and Compounds</i> , 2020, 845, 155040.	5.5	7
41	Gap solitons and modulation instability in a dynamic Bragg grating with nonlinearity management. <i>Journal of Optics</i> , 2009, 11, 015203.	1.5	6
42	Tapering photonic crystal fibers for generating self-similar ultrashort pulses at 1550Ånm. <i>Optical Engineering</i> , 2016, 55, 067108.	1.0	6
43	Ultrahigh sensitive surface plasmon sensor using a nanofilm coated D-type photonic crystal fiber. <i>Applied Optics</i> , 2021, 60, 2591.	1.8	6
44	Supercontinuum generation in low dispersion and highly nonlinear hexagonal photonic crystal fibers. <i>Journal of Nanophotonics</i> , 2017, 11, 1.	1.0	6
45	Chirped Self-similar Pulse Propagation in Cubic-quintic Media. <i>Progress in Electromagnetics Research Symposium: [proceedings] Progress in Electromagnetics Research Symposium</i> , 2007, 3, 531-538.	0.4	6
46	Dosimetric Effect of Rotational Setup Errors in Single-Isocenter Volumetric-Modulated Arc Therapy of Multiple Brain Metastases. <i>Journal of Medical Physics</i> , 2019, 44, 84-90.	0.3	6
47	Grating solitons near the photonic bandgap of a fiber Bragg grating. <i>Chaos, Solitons and Fractals</i> , 2007, 33, 523-531.	5.1	5
48	Realizing a robust optical pulse compressor operating at 850 nm using a photonic crystal fiber. <i>Journal of Modern Optics</i> , 2013, 60, 368-377.	1.3	5
49	Influence of quasi-periodic cladding on single mode behavior in a leakage channel fiber: Towards the enhancement of modal discrimination and low bending loss of the LP ₀₁ mode. <i>Optics Communications</i> , 2017, 389, 239-246.	2.1	5
50	Design of a terahertz chemical sensor using a dual steering-wheel microstructured photonic crystal fiber. <i>Photonics and Nanostructures - Fundamentals and Applications</i> , 2021, 46, 100952.	2.0	5
51	Designing photonic quasi-crystal fibers of various folds: onto optimization of efficiency and bandwidth of second harmonic generation. <i>Applied Optics</i> , 2014, 53, 2899.	1.8	4
52	Designing a refractive index based biosensor using a photonic quasi-crystal fiber. , 2015, , .		4
53	Study of variation in dose calculation accuracy between kV cone-beam computed tomography and kV fan-Beam computed tomography. <i>Journal of Medical Physics</i> , 2017, 42, 171.	0.3	4
54	Evolution of polarization of a nonlinear pulse in birefringent fiber with quintic effects. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2002, 301, 433-441.	2.1	3

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55	Adiabatic Bragg soliton compression. Optics Communications, 2003, 227, 275-281.	2.1	3
56	Speckle noise suppression in SAR images (Oil spill images) using wavelet based methods and ICA technique. , 2015, , .		3
57	Localized Plasmon-Based Optical Fiber Sensing Platform for Operation in Infrared. IEEE Photonics Technology Letters, 2016, 28, 2054-2057.	2.5	3
58	Study of dosimetric properties of flattened and unflattened megavoltage x ray beam on high Z implant materials. Journal of Applied Clinical Medical Physics, 2018, 19, 265-273.	1.9	3
59	Continuous wave pumped supercontinuum assisted by a weak femtosecond pulse seed. Journal of Optics (United Kingdom), 2019, 21, 015503.	2.2	3
60	Bright and dark spatial solitons in coupled photorefractive media. Journal of Modern Optics, 2004, 51, 415-421.	1.3	2
61	Supercontinuum generation in a silicon nanowire embedded spiral photonic crystal fiber. , 2013, , .		2
62	Design of a photonic quasi-crystal fiber for the generation of few cycle laser pulses. Infrared Physics and Technology, 2015, 68, 69-74.	2.9	2
63	Generation of a train of ultrashort pulses using periodic waves in tapered photonic crystal fibres. Journal of Modern Optics, 2016, 63, 2246-2258.	1.3	2
64	Combination and Compression of Multiple Optical Pulses in Nonlinear Fibers with the Exponentially Decreasing Dispersion. IEEE Journal of Quantum Electronics, 2018, 54, 1-10.	1.9	2
65	Design of a Terahertz Alcohol Sensor Using a Steering-Wheel Microstructured Photonic Crystal Fiber. IETE Journal of Research, 2023, 69, 180-188.	2.6	2
66	Studies on Fundamental Interaction Parameters for Stainless Steel and Titanium Biomaterials Using Flattened and Un-Flattened Megavoltage X-Ray Beams. Asian Pacific Journal of Cancer Prevention, 2019, 20, 2485-2491.	1.2	2
67	Pedestal free pulse compression in nonuniform fiber Bragg gratings. , 2007, , .		1
68	Effects of higher order dispersion on self-similar pulse compression in nonlinear fiber bragg gratings. , 2009, , .		1
69	Chirped optical solitons: High degree pulse compression. , 2009, , .		1
70	Dynamics of 850 nm optical pulses upon compression in a tapered photonic crystal fiber. , 2011, , .		1
71	Silicon nanowire embedded circular photonic crystal fiber for nonlinear applications. , 2013, , .		1
72	Supercontinuum generation in silicon nanowire embedded photonic crystal fibers with different core geometries. , 2014, , .		1

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73	Large dispersion and high nonlinearity in silicon nanowire embedded photonic crystal fiber. , 2014, , .		1
74	Generation of Few-Cycle Laser Pulses Using A Photonic Quasi-crystal Fiber. Springer Proceedings in Physics, 2017, , 153-158.	0.2	1
75	Supercontinuum Generation in a Silicon Nanowire Embedded Photonic Crystal Fiber for Optical Coherence Tomography Applications. Springer Proceedings in Physics, 2017, , 71-88.	0.2	1
76	ANALYSIS OF POTENTIAL ENERGY IN BIREFRINGENT FIBER THROUGH UNDAMPED DUFFING OSCILLATOR EQUATION. Journal of Nonlinear Optical Physics and Materials, 2003, 12, 7-16.	1.8	0
77	Pedestal-free pulse compression in nonlinear fiber Bragg gratings with exponentially varying dispersion. , 2008, , .		0
78	Efficient pulse compression in photonic crystal fibre at 850 nm. , 2010, , .		0
79	Generation of bright and dark solitons in photonic nanowire. , 2012, , .		0
80	Designing an eight-fold photonic quasi-crystal fiber for enhancing the efficiency of second harmonic generation. , 2013, , .		0
81	Low dispersion and high nonlinearity microstructured photonic quasicrystal fiber. , 2013, , .		0
82	Silicon Nanowire Embedded Spiral Photonic Crystal Fiber for Soliton-Effect Pulse Compression. Advanced Materials Research, 0, 938, 316-321.	0.3	0
83	Designing a 10-fold photonic quasi-crystal fiber for enhancing the efficiency of second harmonic generation. , 2014, , .		0
84	Six-fold photonic quasicrystal fiber for generating few cycle laser pulses. , 2014, , .		0
85	Few-cycle pulse generation using low confinement loss solid-core photonic quasi-crystal fiber. , 2015, , .		0
86	Design of octagonal core micro-cladding leakage channel fiber with low bending loss. , 2015, , .		0
87	Comparison of low dispersion and high nonlinear PCF with different lattices: Triangular, square and asymmetric. , 2017, , .		0
88	Modelling photon condensation in a fluorescent dye filled optical microcavity. IOP Conference Series: Materials Science and Engineering, 2017, 263, 022005.	0.6	0
89	Quasi-Deterministic Secure Quantum Communication Using Non-maximally Entangled States. International Journal of Theoretical Physics, 2021, 60, 164-171.	1.2	0
90	Modulational instability in highly nonlinear media. , 2008, , .		0

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91	An Assessment of Dosimetric Characteristics of Inline 2.5 Mega Voltage Unflattened Imaging X-Ray Beam. Asian Pacific Journal of Cancer Prevention, 2019, 20, 2531-2539.	1.2	0
92	Designing a dual steering wheel microstructured blood components sensor in terahertz wave band. Optical Engineering, 2020, 59, 1.	1.0	0