

# Vasantha Jayakantha Raja R

## List of Publications by Year in descending order

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68  
papers

761  
citations

566801

15  
h-index

525886

27  
g-index

68  
all docs

68  
docs citations

68  
times ranked

446  
citing authors

#	ARTICLE	IF	CITATIONS
1	Highly efficient compact temperature sensor using liquid infiltrated asymmetric dual elliptical core photonic crystal fiber. <i>Optical Materials</i> , 2017, 64, 574-582.	1.7	72
2	Modulational-instability-induced supercontinuum generation with saturable nonlinear response. <i>Physical Review A</i> , 2010, 82, .	1.0	59
3	Supercontinuum generation in liquid-filled photonic crystal fiber with slow nonlinear response. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2010, 27, 1763.	0.9	58
4	Detecting hemoglobin content blood glucose using surface plasmon resonance in D-shaped photonic crystal fiber. <i>Optical Fiber Technology</i> , 2019, 50, 132-138.	1.4	52
5	Modulational instability in a twin-core fiber with the effect of saturable nonlinear response and coupling coefficient dispersion. <i>Physical Review A</i> , 2013, 87, .	1.0	48
6	Modulational instability with higher-order dispersion and walk-off in Kerr media with cross-phase modulation. <i>Physical Review A</i> , 2012, 86, .	1.0	41
7	Highly Sensitive Nonlinear Temperature Sensor Based on Modulational Instability Technique in Liquid Infiltrated Photonic Crystal Fiber. <i>IEEE Sensors Journal</i> , 2017, 17, 3720-3727.	2.4	37
8	A fully vectorial effective index method to analyse the propagation properties of microstructured fiber. <i>Photonics and Nanostructures - Fundamentals and Applications</i> , 2007, 5, 171-177.	1.0	35
9	Efficient Pulse Compression Using Tapered Photonic Crystal Fiber at 850 nm. <i>IEEE Journal of Quantum Electronics</i> , 2010, 46, 1795-1803.	1.0	33
10	Stability of trapless Bose-Einstein condensates with two- and three-body interactions. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2010, 43, 125302.	0.6	32
11	Realization of all-optical logic gates through three core photonic crystal fiber. <i>Optics Communications</i> , 2013, 296, 124-131.	1.0	30
12	Theoretical investigation of modulational instability in semiconductor doped dispersion decreasing fiber and its cutting edge over the existing fiber systems. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2013, 30, 178.	0.9	27
13	Modulational instability at the proximity of zero dispersion wavelength in the relaxing saturable nonlinear system. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2012, 29, 2803.	0.9	26
14	A colloquium on the influence of versatile class of saturable nonlinear responses in the instability induced supercontinuum generation. <i>Optical Fiber Technology</i> , 2013, 19, 348-358.	1.4	25
15	Modeling photonic crystal fiber for efficient soliton pulse propagation at 850 nm. <i>Optics Communications</i> , 2010, 283, 5000-5006.	1.0	23
16	Degenerate four-wave mixing for measurement of magnetic field using a nanoparticles-doped highly nonlinear photonic crystal fiber. <i>Applied Optics</i> , 2019, 58, 333.	0.9	18
17	Ultra Sensitive Nonlinear Fiber Optics-Based Refractive Index Sensor Using Degenerate Four Wave Mixing Technique in Photonic Crystal Fiber. <i>IEEE Sensors Journal</i> , 2018, 18, 6607-6614.	2.4	15
18	All-Optical Steering of Light Through Nonlinear Twin-Core Photonic Crystal Fiber Coupler at 850 nm. <i>Journal of Lightwave Technology</i> , 2012, 30, 2110-2116.	2.7	13

#	ARTICLE	IF	CITATIONS
19	Designing a class of asymmetric twin core photonic crystal fibers for switching and multi-frequency generation. <i>Optical Fiber Technology</i> , 2013, 19, 556-564.	1.4	12
20	Impact of structural asymmetry on the efficiency of triple-core photonic crystal fiber for all-optical logic operation. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2015, 32, 1920.	0.9	11
21	Tunable Broadband Spectrum Under the Influence of Temperature in IR Region Using CS <sub>2</sub> Core Photonic Crystal Fiber. <i>Journal of Lightwave Technology</i> , 2016, 34, 3503-3509.	2.7	11
22	Simultaneous Measurement of Salinity and Temperature in Gold-Coated D-Shaped Photonic Crystal Fiber Using Four-Wave Mixing Technique. , 2018, 2, 1-4.		10
23	Power play in the supercontinuum spectra of saturable nonlinear media. <i>Laser Physics</i> , 2014, 24, 045405.	0.6	9
24	Impact of higher-order dispersion in the modulational instability spectrum of a relaxing coupled saturable media. <i>Pramana - Journal of Physics</i> , 2014, 82, 339-345.	0.9	9
25	Generation of low power and ultrashort laser pulses at 800 nm through soliton compression in chloroform-infiltrated cascaded photonic crystal fibers. <i>Journal of Applied Physics</i> , 2018, 124, .	1.1	8
26	Soliton fission and supercontinuum generation in photonic crystal fibre for optical coherence tomography application. <i>Pramana - Journal of Physics</i> , 2015, 85, 993-1007.	0.9	7
27	Effect of Temperature on Supercontinuum Generation in Water-Core Photonic Crystal Fiber. <i>IEEE Photonics Technology Letters</i> , 2016, 28, 1209-1212.	1.3	7
28	Logic gates based all-optical binary half adder using triple core photonic crystal fiber. <i>Journal of Optics (United Kingdom)</i> , 2018, 20, 065503.	1.0	6
29	Soliton-induced supercontinuum generation in liquid-filled photonic crystal fibre. <i>Pramana - Journal of Physics</i> , 2011, 77, 959-974.	0.9	5
30	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.	0.6	5
31	Pulse compression and pedestal suppression by self-similar propagation in nonlinear optical loop mirror. <i>Optics Communications</i> , 2020, 474, 126083.	1.0	3
32	Investigation of all optical pulse steering through a highly nonlinear chalcogenide twin core photonic crystal fiber. , 2013, , .		2
33	Effect of Chirp on Supercontinuum Generation in Chloroform filled Photonic Crystal Fiber with two Zero Dispersion Wavelengths. , 2014, , .		2
34	Low pedestal sub-17 fs pulse generation through cascaded self-similar compression in photonic crystal fibers. <i>Journal of Optics (United Kingdom)</i> , 0, , .	1.0	2
35	Design and Simulation for Ultra High Soliton Pulse Compression through Photonic Crystal Fiber. <i>AIP Conference Proceedings</i> , 2008, , .	0.3	1
36	Interplay between saturation and relaxation of nonlinear response in the modulational instability of various nonlinear media. , 2012, , .		1

#	ARTICLE	IF	CITATIONS
37	A theoretical investigation of soliton induced supercontinuum generation in liquid core photonic crystal fiber and dual core optical fiber. European Physical Journal: Special Topics, 2013, 222, 625-640.	1.2	1
38	An all-optical NOT logic operation based on a chloroform filled geometrically asymmetric triangular triple-core PCF. , 2015, , .		1
39	A novel design of PCF for supercontinuum source to detect oral cancer using OCT. , 2015, , .		1
40	Effect of two zero dispersion wavelengths on supercontinuum generation in CS <sub>2</sub> cored photonic crystal fiber. , 2015, , .		1
41	A projection operator approach for computing the dynamics of AS <sub>2</sub> S <sub>3</sub> chalcogenide birefringent photonic crystal fiber coupler. Journal of Optics (United Kingdom), 2015, 17, 025504.	1.0	1
42	Modeling nonlinear high-pressure sensors based on degenerate four-wave mixing in photonic crystal fibers. Applied Optics, 2022, 61, 2591.	0.9	1
43	The contribution of reorientational nonlinearity of CS <sub>2</sub> liquid in supercontinuum generation. , 2010, , .		0
44	Efficient pulse compression in photonic crystal fibre at 850 nm. , 2010, , .		0
45	Influence of Material Absorption on Supercontinuum Generation in Photonic Crystal Fibers. , 2012, , .		0
46	Investigation of optical pulse coupling through the nitrobenzene filled photonic crystal fiber coupler &#x2014; A projection operator approach. , 2012, , .		0
47	Impact of material absorption on supercontinuum generation in liquid core photonic crystal fiber. , 2013, , .		0
48	All optical AND and NAND logic gates based on a triple core photonic crystal fiber. , 2013, , .		0
49	Supercontinuum generation in the novel semiconductor doped dispersion decreasing fiber. , 2013, , .		0
50	Observation of two state behavior in the Instability induced Supercontinuum Generation of exponential saturable nonlinearity. , 2013, , .		0
51	Implementation of All Optical NOR and OR Logic Gates using Asymmetric Triple Core PCF. , 2014, , .		0
52	Effect of cladding parameters on supercontinuum generation in water core photonic crystal fiber. , 2015, , .		0
53	Tuning bandwidth of white light laser in novel dispersion decreasing fiber. , 2015, , .		0
54	Temperature tunable supercontinuum spectrum in visible region using water-core PCF. , 2016, , .		0

#	ARTICLE	IF	CITATIONS
55	Temperature Varied Photonic Crystal Fiber for Two-Stage Non-Integer Soliton Compression. , 2017, , .		0
56	Effect of temperature on modulational instability in normal region of CS <sup>2</sup> core photonic crystal fiber with delayed nonlinear response. , 2017, , .		0
57	Picosecond Fundamental Soliton Pulse Compression in Self-similarly designed Chalcogenide Taper Photonic Crystal Fiber. , 2019, , .		0
58	Self-Similar Compression of Low Power Solitons at 800Ånm Using Chloroform Infiltrated Taper Photonic Crystal Fiber. Springer Proceedings in Physics, 2021, , 387-390.	0.1	0
59	Numerical Investigation on Soliton Pulse Propagation in Photonic Crystal Fiber. , 2008, , .		0
60	A Unique Behavior of Pump power in the Modulational Instability Spectra of Saturable Nonlinear Media. , 2012, , .		0
61	Design of Highly Nonlinear Photonic Crystal Fiber for Highly Scattering Tissue Optical Coherence Tomography Applications. , 2014, , .		0
62	Influence of geometrical asymmetry on logical output of a triple core PCF. , 2016, , .		0
63	Sea water salinity sensor based on modulational instability technique using photonic crystal fiber. , 2016, , .		0
64	Tunable Supercontinuum Spectrum Using CS <sub>2</sub> Core Photonic Crystal Fiber. , 2016, , .		0
65	Degenerate four-wave mixing based temperature sensor in As <sub>2</sub> S <sub>3</sub> PCF. , 2019, , .		0
66	Pulse compression in Nonlinear optical loop mirror through self-similar propagation. , 2020, , .		0
67	All-Optical Photonic Crystal Fiber Couplers. , 2022, , .		0
68	Generation of High Power Ultrashort Pulses in Tapered Yb-Doped PCF Through Self-Similar Compression. IEEE Journal of Quantum Electronics, 2022, 58, 1-8.	1.0	0