

Iñigo Molina-Fernández

List of Publications by Year in descending order

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43
papers

1,867
citations

331670

21
h-index

361022

35
g-index

43
all docs

43
docs citations

43
times ranked

1152
citing authors

#	ARTICLE	IF	CITATIONS
1	Waveguide subwavelength structures: a review of principles and applications. <i>Laser and Photonics Reviews</i> , 2015, 9, 25-49.	8.7	475
2	Subwavelength-Grating Metamaterial Structures for Silicon Photonic Devices. <i>Proceedings of the IEEE</i> , 2018, 106, 2144-2157.	21.3	155
3	Ultra-broadband nanophotonic beamsplitter using an anisotropic subwavelength metamaterial. <i>Laser and Photonics Reviews</i> , 2016, 10, 1039-1046.	8.7	148
4	Evanescent field waveguide sensing with subwavelength grating structures in silicon-on-insulator. <i>Optics Letters</i> , 2014, 39, 4442.	3.3	143
5	[INVITED] Subwavelength structures for silicon photonics biosensing. <i>Optics and Laser Technology</i> , 2019, 109, 437-448.	4.6	79
6	Design of narrowband Bragg spectral filters in subwavelength grating metamaterial waveguides. <i>Optics Express</i> , 2018, 26, 179.	3.4	74
7	A review of silicon subwavelength gratings: building break-through devices with anisotropic metamaterials. <i>Nanophotonics</i> , 2021, 10, 2765-2797.	6.0	70
8	Ultra-Broadband Mode Converter and Multiplexer Based on Sub-Wavelength Structures. <i>IEEE Photonics Journal</i> , 2018, 10, 1-10.	2.0	65
9	Controlling leakage losses in subwavelength grating silicon metamaterial waveguides. <i>Optics Letters</i> , 2016, 41, 3443.	3.3	60
10	Tilted subwavelength gratings: controlling anisotropy in metamaterial nanophotonic waveguides. <i>Optics Letters</i> , 2018, 43, 4691.	3.3	60
11	An Ultracompact GRIN-Lens-Based Spot Size Converter using Subwavelength Grating Metamaterials. <i>Laser and Photonics Reviews</i> , 2019, 13, 1900172.	8.7	47
12	Bragg filter bandwidth engineering in subwavelength grating metamaterial waveguides. <i>Optics Letters</i> , 2019, 44, 1043.	3.3	41
13	Optimizing the Limit of Detection of Waveguide-Based Interferometric Biosensor Devices. <i>Sensors</i> , 2019, 19, 3671.	3.8	36
14	Fundamental limit of detection of photonic biosensors with coherent phase read-out. <i>Optics Express</i> , 2019, 27, 12616.	3.4	33
15	Disorder effects in subwavelength grating metamaterial waveguides. <i>Optics Express</i> , 2017, 25, 12222.	3.4	31
16	An ultra-compact multimode interference coupler with a subwavelength grating slot. <i>Laser and Photonics Reviews</i> , 2013, 7, L12.	8.7	29
17	Ultra-broadband nanophotonic phase shifter based on subwavelength metamaterial waveguides. <i>Photonics Research</i> , 2020, 8, 359.	7.0	28
18	Polarization splitting directional coupler using tilted subwavelength gratings. <i>Optics Letters</i> , 2020, 45, 3398.	3.3	26

#	ARTICLE	IF	CITATIONS
19	Experimental demonstration of a broadband mode converter and multiplexer based on subwavelength grating waveguides. Optics and Laser Technology, 2020, 129, 106297.	4.6	25
20	Highly efficient optical antenna with small beam divergence in silicon waveguides. Optics Letters, 2020, 45, 5668.	3.3	24
21	Narrowband Bragg filters based on subwavelength grating waveguides for silicon photonic sensing. Optics Express, 2020, 28, 37971.	3.4	22
22	Mid-infrared suspended waveguide platform and building blocks. IET Optoelectronics, 2019, 13, 55-61.	3.3	21
23	Suspended germanium waveguides with subwavelength-grating metamaterial cladding for the mid-infrared band. Optics Express, 2021, 29, 16867.	3.4	21
24	Complex spectral filters in silicon waveguides based on cladding-modulated Bragg gratings. Optics Express, 2021, 29, 15867.	3.4	20
25	Bricked Subwavelength Gratings: A Tailorable On-Chip Metamaterial Topology. Laser and Photonics Reviews, 2021, 15, 2000478.	8.7	18
26	Millimeter-long metamaterial surface-emitting antenna in the silicon photonics platform. Optics Letters, 2021, 46, 3733.	3.3	17
27	Distributed Bragg deflector coupler for on-chip shaping of optical beams. Optics Express, 2019, 27, 33180.	3.4	17
28	Design of a suspended germanium micro-antenna for efficient fiber-chip coupling in the long-wavelength mid-infrared range. Optics Express, 2019, 27, 22302.	3.4	16
29	Zero-Birefringence Silicon Waveguides Based on Tilted Subwavelength Metamaterials. IEEE Photonics Journal, 2019, 11, 1-8.	2.0	14
30	Coherent silicon photonic interferometric biosensor with an inexpensive laser source for sensitive label-free immunoassays. Optics Letters, 2020, 45, 6595.	3.3	11
31	Polarization-independent multimode interference coupler with anisotropy-engineered bricked metamaterial. Photonics Research, 2022, 10, A57.	7.0	11
32	High-efficiency conversion from waveguide mode to an on-chip beam using a metamaterial engineered Bragg deflector. Optics Letters, 2021, 46, 2409.	3.3	8
33	Mode Converter and Multiplexer With a Subwavelength Phase Shifter for Extended Broadband Operation. IEEE Photonics Technology Letters, 2021, 33, 1262-1265.	2.5	7
34	Broadband 2x2 multimode interference coupler for mid-infrared wavelengths. Optics Letters, 2021, 46, 5300.	3.3	7
35	Low-loss off-axis curved waveguide grating demultiplexer. Optics Letters, 2021, 46, 4821.	3.3	3
36	Dispersion-engineered nanophotonic devices based on subwavelength metamaterial waveguides. , 2020, , .		1

#	ARTICLE	IF	CITATIONS
37	Low Limit of Detection Silicon Photonic Sensor with Extremely-Low-Cost Laser Source. , 2020, , .		1
38	Subwavelength-engineered metamaterial devices for integrated photonics. , 2022, , .		1
39	UV-written silicon nitride integrated optical phased arrays. , 2022, , .		1
40	Integrated metamaterial surface-emitting antenna for beam steering applications. , 2021, , .		1
41	Metamaterial engineered C+L band 90° hybrid with 150 nm feature size. , 2020, , .		0
42	Building high-performance integrated optical devices using subwavelength grating metamaterials -INVITED. EPJ Web of Conferences, 2021, 255, 01001.	0.3	0
43	Bricked patterning: a new concept to enhance the capabilities of subwavelength grating waveguides. , 2021, , .		0