

Jorge Bravo-Abad

List of Publications by Year in descending order

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74
papers

3,005
citations

186265

28
h-index

161849

54
g-index

74
all docs

74
docs citations

74
times ranked

3346
citing authors

#	ARTICLE	IF	CITATIONS
1	Deep learning enabled inverse design in nanophotonics. <i>Nanophotonics</i> , 2020, 9, 1041-1057.	6.0	295
2	Quantum Emitters Near a Metal Nanoparticle: Strong Coupling and Quenching. <i>Physical Review Letters</i> , 2014, 112, 253601.	7.8	248
3	Enhanced millimeter-wave transmission through subwavelength hole arrays. <i>Optics Letters</i> , 2004, 29, 2500.	3.3	175
4	Second-harmonic generation using -quasi-phasematching in a GaAs whispering-gallery-mode microcavity. <i>Nature Communications</i> , 2014, 5, 3109.	12.8	161
5	Enhanced nonlinear optics in photonic-crystal microcavities. <i>Optics Express</i> , 2007, 15, 16161.	3.4	155
6	Transmission properties of a single metallic slit: From the subwavelength regime to the geometrical-optics limit. <i>Physical Review E</i> , 2004, 69, 026601.	2.1	129
7	Resonant Transmission of Light Through Finite Chains of Subwavelength Holes in a Metallic Film. <i>Physical Review Letters</i> , 2004, 93, 227401.	7.8	118
8	Graphene supports the propagation of subwavelength optical solitons. <i>Laser and Photonics Reviews</i> , 2013, 7, L7.	8.7	117
9	Integrated optical devices design by genetic algorithm. <i>Applied Physics Letters</i> , 2004, 84, 4460-4462.	3.3	105
10	How light emerges from an illuminated array of subwavelength holes. <i>Nature Physics</i> , 2006, 2, 120-123.	16.7	97
11	Low-threshold lasing action in photonic crystal slabs enabled by Fano resonances. <i>Optics Express</i> , 2011, 19, 1539.	3.4	88
12	Enhanced millimeter wave transmission through quasioptical subwavelength perforated plates. <i>IEEE Transactions on Antennas and Propagation</i> , 2005, 53, 1897-1903.	5.1	87
13	Deep-subwavelength negative-index waveguiding enabled by coupled conformal surface plasmons. <i>Optics Letters</i> , 2014, 39, 2990.	3.3	84
14	Efficiency and finite size effects in enhanced transmission through subwavelength apertures. <i>Optics Express</i> , 2008, 16, 9571.	3.4	82
15	Plasmonic Waveguide-Integrated Nanowire Laser. <i>Nano Letters</i> , 2017, 17, 747-754.	9.1	80
16	Controlling Terahertz Radiation with Nanoscale Metal Barriers Embedded in Nano Slot Antennas. <i>ACS Nano</i> , 2011, 5, 8340-8345.	14.6	66
17	Larger-area single-mode photonic crystal surface-emitting lasers enabled by an accidental Dirac point. <i>Optics Letters</i> , 2014, 39, 2072.	3.3	63
18	Theory of strong coupling between quantum emitters and localized surface plasmons. <i>Journal of Optics (United Kingdom)</i> , 2014, 16, 114018.	2.2	62

#	ARTICLE	IF	CITATIONS
19	Modeling Nonlinear Optical Phenomena in Nanophotonics. Journal of Lightwave Technology, 2007, 25, 2539-2546.	4.6	55
20	Theory of Extraordinary Transmission of Light through Quasiperiodic Arrays of Subwavelength Holes. Physical Review Letters, 2007, 99, 203905.	7.8	53
21	Enabling single-mode behavior over large areas with photonic Dirac cones. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 9761-9765.	7.1	53
22	Plasmon-Assisted Nd ³⁺ -Based Solid-State Nanolaser. Nano Letters, 2016, 16, 895-899.	9.1	44
23	Transmission of light through periodic arrays of square holes: From a metallic wire mesh to an array of tiny holes. Physical Review B, 2007, 76, .	3.2	36
24	Design of an efficient terahertz source using triply resonant nonlinear photonic crystal cavities. Optics Express, 2009, 17, 20099.	3.4	36
25	Anomalous Band Formation in Arrays of Terahertz Nanoresonators. Physical Review Letters, 2011, 106, 013902.	7.8	32
26	Weyl points in photonic-crystal superlattices. 2D Materials, 2015, 2, 034013.	4.4	32
27	Tunable and Robust Long-Range Coherent Interactions between Quantum Emitters Mediated by Weyl Bound States. Physical Review Letters, 2020, 125, 163602.	7.8	30
28	Nonequilibrium plasmon emission drives ultrafast carrier relaxation dynamics in photoexcited graphene. Physical Review B, 2016, 93, .	3.2	29
29	Theory of lasing action in plasmonic crystals. Physical Review B, 2015, 91, .	3.2	26
30	Ultrafast photodetection in an all-silicon chip enabled by two-photon absorption. Applied Physics Letters, 2009, 94, 241103.	3.3	24
31	A high-efficiency regime for gas-phase terahertz lasers. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 6614-6619.	7.1	24
32	Gain-assisted extraordinary optical transmission through periodic arrays of subwavelength apertures. New Journal of Physics, 2012, 14, 013020.	2.9	23
33	Modeling of threshold and dynamics behavior of organic nanostructured lasers. Journal of Materials Chemistry C, 2014, 2, 1463.	5.5	23
34	Difference-frequency generation with quantum-limited efficiency in triply-resonant nonlinear cavities. Optics Express, 2009, 17, 9241.	3.4	22
35	Deep Learning for the Modeling and Inverse Design of Radiative Heat Transfer. Physical Review Applied, 2021, 16, .	3.8	20
36	Efficient low-power terahertz generation via on-chip triply-resonant nonlinear frequency mixing. Applied Physics Letters, 2010, 96, 101110.	3.3	19

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37	Anomalous refractive properties of a two-dimensional photonic band-gap prism. <i>Physical Review B</i> , 2003, 67, .	3.2	18
38	Resonant Transmission of Light Through Subwavelength Holes in Thick Metal Films. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2006, 12, 1221-1227.	2.9	17
39	Intermittent chaos for ergodic light trapping in a photonic fiber plate. <i>Light: Science and Applications</i> , 2016, 5, e16216-e16216.	16.6	17
40	Spatio-temporal Modeling of Lasing Action in Core-Shell Metallic Nanoparticles. <i>ACS Photonics</i> , 2016, 3, 1952-1960.	6.6	17
41	Optical second-harmonic scattering from a non-diffusive random distribution of nonlinear domains. <i>Optics Express</i> , 2010, 18, 14202.	3.4	15
42	Photonic crystal optical waveguides for on-chip Bose-Einstein condensates. <i>Physical Review A</i> , 2006, 74, .	2.5	14
43	Wavelength de-multiplexing properties of a single aperture flanked by periodic arrays of indentations. <i>Photonics and Nanostructures - Fundamentals and Applications</i> , 2003, 1, 55-62.	2.0	13
44	Light-matter interactions near photonic Weyl points. <i>Physical Review A</i> , 2021, 103, .	2.5	13
45	Wavelength Demultiplexing Structure Based on Coupled-Cavity Waveguides in Photonic Crystals. <i>Fiber and Integrated Optics</i> , 2003, 22, 151-160.	2.5	12
46	Multiline Operation from a Single Plasmon-Assisted Laser. <i>ACS Photonics</i> , 2018, 5, 406-412.	6.6	12
47	Spatio-temporal theory of lasing action in optically-pumped rotationally excited molecular gases. <i>Optics Express</i> , 2011, 19, 7513.	3.4	11
48	Photonic crystals go dynamic. <i>Nature Materials</i> , 2007, 6, 799-800.	27.5	9
49	Observation of speckle pattern formation in transparent nonlinear random media. <i>Optics Letters</i> , 2011, 36, 1347.	3.3	7
50	Lasing action assisted by long-range surface plasmons. <i>Laser and Photonics Reviews</i> , 2014, 8, L65-L70.	8.7	7
51	A sense of direction. <i>Nature Nanotechnology</i> , 2013, 8, 479-480.	31.5	6
52	Wave-front phase-modulation control and focusing of second-harmonic light generated in transparent nonlinear random structures. <i>Physical Review A</i> , 2013, 87, .	2.5	5
53	Spatial control of second-harmonic light from a disordered structure. , 2012, , .		4
54	Generating Weyl nodes in non-centrosymmetric cubic crystal structures. <i>Journal of Physics Communications</i> , 2020, 4, 065006.	1.2	3

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55	Spatial coherence from Nd ³⁺ quantum emitters mediated by a plasmonic chain. Optics Express, 2021, 29, 26244.	3.4	3
56	<title>Transmission analysis and applications of bent waveguides in hexagonal photonic crystals</title>. , 2002, , .		2
57	A Unified Picture of Laser Physics. Science, 2008, 320, 623-624.	12.6	2
58	Disorder sets light straight. Nature Physics, 2015, 11, 213-214.	16.7	2
59	<title>Suzuki phase in two-dimensional photonic crystals</title>. , 2002, 4655, 251.		1
60	Enabling Lasing Action in Hybrid Atomicâ€“Nanophotonic Integrated Structures. Annalen Der Physik, 2018, 530, 1800203.	2.4	1
61	Generation of Terahertz Radiation via Purcell-Enhanced Nonlinear Frequency Mixing. Springer Series in Optical Sciences, 2012, , 325-341.	0.7	1
62	Extraordinary electromagnetic transmission through finite arrays of holes in a metal film. , 2005, , .		0
63	Theory of optical transmission through arrays of subwavelength apertures. Handai Nanophotonics, 2006, , 15-29.	0.0	0
64	Strong coupling between terahertz nano slot antennas separated by sub-skin depth barriers. , 2011, , .		0
65	Terahertz wave control enabled by nano objects embedded in slot antennas. , 2012, , .		0
66	Lasing action in active plasmonic structures. , 2015, , .		0
67	Nonequilibrium plasmon emission and amplification in photo-excited graphene. , 2016, , .		0
68	Wavelength Demultiplexing Structure Based on Coupled-Cavity Waveguides in Photonic Crystals. Fiber and Integrated Optics, 2003, 22, 151-160.	2.5	0
69	Efficient Difference Frequency Generation in Triply Resonant Nonlinear Cavities. , 2009, , .		0
70	Ultrafast Photodetection in an All-Silicon Chip Enabled by Two-Photon Absorption. , 2009, , .		0
71	Light Scattering in a Random but Non Diffusive Nonlinear Medium. , 2010, , .		0
72	Demonstration of second-harmonic generation by 4 $\hat{\text{A}}$ -quasi-phasematching in a GaAs microdisk cavity. , 2013, , .		0

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73	THEORY OF LIGHT TRANSMISSION THROUGH PERIODICALLY STRUCTURED NANO-APERTURES. , 2007, , 27-38.		0
74	Tunable and Robust Long-range Coherent Dipole Interactions Mediated by Weyl Bound States. , 2020, , .		0