

Valerio Pruneri

List of Publications by Year in descending order

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Version: 2024-02-01

120
papers

7,865
citations

66315

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49868

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123
all docs

123
docs citations

123
times ranked

9221
citing authors

#	ARTICLE	IF	CITATIONS
1	Phonon-Enhanced Mid-Infrared CO ₂ Gas Sensing Using Boron Nitride Nanoresonators. ACS Photonics, 2022, 9, 34-42.	3.2	17
2	Ultra-Thin Infrared Optical Gain Medium and Optically Pumped Stimulated Emission in PbS Colloidal Quantum Dot LEDs. Advanced Functional Materials, 2022, 32, .	7.8	11
3	Widefield Super-sensitive Phase Imaging Using NOON State Illumination. , 2021, , .		0
4	Antireflective Multilayer Surface with Self-Cleaning Subwavelength Structures. ACS Photonics, 2021, 8, 894-900.	3.2	22
5	Highly transparent and conductive ITO substrates for near infrared applications. APL Materials, 2021, 9, .	2.2	24
6	Controlling mid-infrared plasmons in graphene nanostructures through post-fabrication chemical doping. JPhys Photonics, 2021, 3, 034001.	2.2	3
7	Mid-infrared gas sensor based on hybrid graphene nanostructures and ultrathin gas-adsorbing polymer. , 2021, , .		0
8	Quantum technologies in space. Experimental Astronomy, 2021, 51, 1677-1694.	1.6	23
9	Ultrathin Metals on a Transparent Seed and Application to Infrared Reflectors. ACS Applied Materials & Interfaces, 2021, 13, 46990-46997.	4.0	19
10	A quantum-enhanced wide-field phase imager. Science Advances, 2021, 7, eabj2155.	4.7	23
11	NaCl substrates for high temperature processing and transfer of ultrathin materials. Scientific Reports, 2020, 10, 7253.	1.6	7
12	Mid-infrared Gas Sensing Using Graphene Plasmons Tuned by Reversible Chemical Doping. ACS Photonics, 2020, 7, 879-884.	3.2	46
13	An ultra-compact particle size analyser using a CMOS image sensor and machine learning. Light: Science and Applications, 2020, 9, 21.	7.7	23
14	Direct and Fast Assessment of Antimicrobial Surface Activity Using Molecular Dynamics Simulation and Time-Lapse Imaging. Analytical Chemistry, 2020, 92, 6795-6800.	3.2	5
15	Nanostructured Hybrid-Material Transparent Surface with Antireflection Properties and a Facile Fabrication Process. ACS Omega, 2019, 4, 19840-19846.	1.6	8
16	Early sepsis diagnosis via protein and miRNA biomarkers using a novel point-of-care photonic biosensor. Analytica Chimica Acta, 2019, 1077, 232-242.	2.6	71
17	Implementation of a quality by design approach in the potato chips frying process. Journal of Food Engineering, 2019, 260, 22-29.	2.7	4
18	Tunable plasmons in ultrathin metal films. Nature Photonics, 2019, 13, 328-333.	15.6	181

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19	Label-free Bacteria Quantification in Blood Plasma by a Bioprinted Microarray Based Interferometric Point-of-Care Device. ACS Sensors, 2019, 4, 52-60.	4.0	45
20	Ultrathin Yttria-Stabilized Zirconia as a Flexible and Stable Substrate for Infrared Nano-Optics. Advanced Optical Materials, 2019, 7, 1800966.	3.6	15
21	Surface cytometer for fluorescent detection and growth monitoring of bacteria over a large field-of-view. Biomedical Optics Express, 2019, 10, 2101.	1.5	6
22	Lens-Free Interferometric Microscope for Point-of-Care Label-Free Detection of Sepsis Biomarkers. , 2019, , .		1
23	Generation of Periodic Structured Illumination Patterns with Compact Birefringent Elements. , 2019, , .		0
24	Integrated Nanophotonic Biosensors for Point-of Care Diagnostics and Bioanalytical Applications. , 2019, , .		0
25	Label-free, scalable and point-of-care imaging platform for rapid analysis of biomarker. , 2019, , .		1
26	Quantum imaging for enhanced microscopy and light modulation. , 2019, , .		1
27	Phase-sensitive plasmonic biosensor using a portable and large field-of-view interferometric microarray imager. Light: Science and Applications, 2018, 7, 17152-17152.	7.7	134
28	Dry transfer of graphene to dielectrics and flexible substrates using polyimide as a transparent and stable intermediate layer. 2D Materials, 2018, 5, 035022.	2.0	37
29	Antireflective Transparent Oleophobic Surfaces by Noninteracting Cavities. ACS Applied Materials & Interfaces, 2018, 10, 43230-43235.	4.0	9
30	Europe's Quantum Flagship is taking off. Europhysics News, 2018, 49, 30-34.	0.1	2
31	Space QUEST mission proposal: experimentally testing decoherence due to gravity. New Journal of Physics, 2018, 20, 063016.	1.2	36
32	The future of cybersecurity is quantum. IEEE Spectrum, 2018, 55, 30-35.	0.5	12
33	Bloch Surface Waves Using Graphene Layers: An Approach toward In-Plane Photodetectors. Applied Sciences (Switzerland), 2018, 8, 390.	1.3	11
34	Scalable and Tunable Periodic Graphene Nanohole Arrays for Mid-Infrared Plasmonics. Nano Letters, 2018, 18, 5913-5918.	4.5	43
35	Photonic Metasurfaces for Next-Generation Biosensors. , 2018, , .		1
36	Interferometric photodetection in silicon photonics for phase diffusion quantum entropy sources. Optics Express, 2018, 26, 31957.	1.7	15

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37	Technique for generating periodic structured light beams using birefringent elements. Optics Express, 2018, 26, 28938.	1.7	3
38	Direct growth of 2D and 3D graphene nano-structures over large glass substrates by tuning a sacrificial Cu-template layer. 2D Materials, 2017, 4, 025088.	2.0	22
39	Double-layer graphene for enhanced tunable infrared plasmonics. Light: Science and Applications, 2017, 6, e16277-e16277.	7.7	143
40	Mid-Infrared Pyroresistive Graphene Detector on LiNbO ₃ . Advanced Optical Materials, 2017, 5, 1600723.	3.6	30
41	Functionalized Transparent Surfaces with Enhanced Self-Cleaning against Ink Aerosol Contamination. Advanced Materials Technologies, 2017, 2, 1600113.	3.0	0
42	Tunable Complete Optical Absorption in Multilayer Structures Including Ge ₂ Sb ₂ Te ₅ without Lithographic Patterns. Advanced Optical Materials, 2017, 5, 1600452.	3.6	47
43	Transparent and conductive backside coating of EUV lithography masks for ultra short pulse laser correction. , 2017, , .		0
44	Low temperature direct growth of graphene patterns on flexible glass substrates catalysed by a sacrificial ultrathin Ni film. Optical Materials Express, 2016, 6, 2487.	1.6	30
45	Quantum entropy source on an InP photonic integrated circuit for random number generation. Optica, 2016, 3, 989.	4.8	84
46	Ultrafast and Broadband Tuning of Resonant Optical Nanostructures Using Phase-Change Materials. Advanced Optical Materials, 2016, 4, 1060-1066.	3.6	67
47	An antireflection transparent conductor with ultralow optical loss ($\leq 2\%$) and electrical resistance ($\sim 1\ \Omega$). Nature Communications, 2016, 7, 13771.	5.8	116
48	Structural Coloring of Glass Using Dewetted Nanoparticles and Ultrathin Films of Metals. ACS Photonics, 2016, 3, 1194-1201.	3.2	67
49	Ultrasensitive interferometric on-chip microscopy of transparent objects. Science Advances, 2016, 2, e1600077.	4.7	27
50	Frequency conversion of structured light. Scientific Reports, 2016, 6, 21390.	1.6	31
51	Near-field photocurrent nanoscopy on bare and encapsulated graphene. Nature Communications, 2016, 7, 10783.	5.8	80
52	Lipid Vesicle Interaction with Hydrophobic Surfaces: A Coarse-Grained Molecular Dynamics Study. Langmuir, 2016, 32, 12632-12640.	1.6	11
53	Active modulation of visible light with graphene-loaded ultrathin metal plasmonic antennas. Scientific Reports, 2016, 6, 32144.	1.6	42
54	Chemical-specific biosensing through mid-infrared graphene plasmons. , 2016, , .		1

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55	Functionalized Surfaces with Tailored Wettability Determine Influenza A Infectivity. ACS Applied Materials & Interfaces, 2016, 8, 15058-15066.	4.0	21
56	Graphene as Enabling Material for Infrared Plasmonic Biosensors. , 2016, , .		0
57	Fourier imaging cytometry for optical analysis of phytoplankton and bacteria in ballast water. , 2016, , .		0
58	A strong loophole-free test of local realism. , 2016, , .		1
59	Strong Loophole-Free Test of Local Realism. Physical Review Letters, 2015, 115, 250402.	2.9	910
60	Generation of Fresh and Pure Random Numbers for Loophole-Free Bell Tests. Physical Review Letters, 2015, 115, 250403.	2.9	88
61	Highly Flexible Transparent Electrodes Containing Ultrathin Silver for Efficient Polymer Solar Cells. Advanced Functional Materials, 2015, 25, 7309-7316.	7.8	81
62	Passive Decoy-State Quantum Key Distribution with Coherent Light. Entropy, 2015, 17, 4064-4082.	1.1	5
63	Active Control of Surface Plasmon Waveguides with a Phase Change Material. ACS Photonics, 2015, 2, 669-674.	3.2	104
64	Significant-Loophole-Free Test of Bell's Theorem with Entangled Photons. Physical Review Letters, 2015, 115, 250401.	2.9	932
65	An Indium Tin Oxide-Free Polymer Solar Cell on Flexible Glass. ACS Applied Materials & Interfaces, 2015, 7, 4541-4548.	4.0	60
66	Time-domain separation of optical properties from structural transitions in resonantly bonded materials. Nature Materials, 2015, 14, 991-995.	13.3	166
67	Mid-infrared plasmonic biosensing with graphene. Science, 2015, 349, 165-168.	6.0	1,167
68	Resonant Visible Light Modulation with Graphene. ACS Photonics, 2015, 2, 550-558.	3.2	71
69	Competition Between Thermal and Non-Thermal Processes During Femtosecond Switching of Phase Change Materials. , 2014, , .		0
70	Efficient heralding of polarization-entangled photons from type-0 and type-II spontaneous parametric downconversion in periodically poled KTiOPO ₄ . Journal of the Optical Society of America B: Optical Physics, 2014, 31, 2068.	0.9	54
71	Ultrathin metals and nano-structuring for photonic applications. , 2014, , .		0
72	Measurement of sub-pulse-width temporal delays via spectral interference induced by weak value amplification. Physical Review A, 2014, 89, .	1.0	49

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73	Ultrathin Transparent Conductive Polyimide Foil Embedding Silver Nanowires. ACS Applied Materials & Interfaces, 2014, 6, 20943-20948.	4.0	70
74	Monolithically Integrated Micro- and Nanostructured Glass Surface with Antiglare, Antireflection, and Superhydrophobic Properties. ACS Applied Materials & Interfaces, 2014, 6, 11198-11203.	4.0	32
75	Superomniphobic, Transparent, and Antireflection Surfaces Based on Hierarchical Nanostructures. Nano Letters, 2014, 14, 4677-4681.	4.5	91
76	Hybrid Transparent Conductive Film on Flexible Glass Formed by Hot-Pressing Graphene on a Silver Nanowire Mesh. ACS Applied Materials & Interfaces, 2013, 5, 11756-11761.	4.0	77
77	Domain Inverted Acousto- and Electrooptic Devices and Their Application to Optical Communication, Sensing, Laser Sources, and Quantum Key Distribution. IEEE Journal of Selected Topics in Quantum Electronics, 2013, 19, 54-63.	1.9	13
78	Durable, superhydrophobic, antireflection, and low haze glass surfaces using scalable metal dewetting nanostructuring. Nano Research, 2013, 6, 429-440.	5.8	66
79	Corrigendum to "Highly stable Ag-Ni based transparent electrodes on PET substrates for flexible organic solar cells" [Solar Energy Materials and Solar Cells 107 (2012) 63-68]. Solar Energy Materials and Solar Cells, 2013, 108, 223.	3.0	0
80	Polariton-based band gap and generation of surface acoustic waves in acoustic superlattice lithium niobate. Journal of Applied Physics, 2013, 114, 054904.	1.1	14
81	Ultrastable and Atomically Smooth Ultrathin Silver Films Grown on a Copper Seed Layer. ACS Applied Materials & Interfaces, 2013, 5, 3048-3053.	4.0	156
82	Phase-stable source of polarization-entangled photons in a linear double-pass configuration. Optics Express, 2013, 21, 11943.	1.7	37
83	Optical switching at 1.55 μm in silicon racetrack resonators using phase change materials. Applied Physics Letters, 2013, 103, .	1.5	185
84	Oxidation-free and ultra-smooth thin silver films grown on a copper seed layer. , 2013, , .		1
85	A high-brightness source of polarization-entangled photons optimized for applications in free space. Optics Express, 2012, 20, 9640.	1.7	79
86	Packaged Optical Sensors Based on Regenerated Fiber Bragg Gratings for High Temperature Applications. IEEE Sensors Journal, 2012, 12, 107-112.	2.4	100
87	Highly stable Ag-Ni based transparent electrodes on PET substrates for flexible organic solar cells. Solar Energy Materials and Solar Cells, 2012, 107, 63-68.	3.0	42
88	Microstructured optical fiber interferometric breathing sensor. Journal of Biomedical Optics, 2012, 17, 037006.	1.4	46
89	Photonic crystal fiber sensor array based on modes overlapping. Optics Express, 2011, 19, 7596.	1.7	75
90	Fabry-Perot interferometers built by photonic crystal fiber pressurization during fusion splicing. Optics Letters, 2011, 36, 4191.	1.7	35

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91	Functional Photonic Crystal Fiber Sensing Devices. , 2011, , .		0
92	Functional photonic crystal fiber sensing devices. , 2011, , .		2
93	Diffraction less and strongly confined surface acoustic waves in domain inverted LiNbO3 superlattices. Applied Physics Letters, 2011, 98, .	1.5	12
94	Photonic crystal fiber sensor array based on cladding mode resonance. , 2011, , .		0
95	High-visibility photonic crystal fiber interferometer for ultrasensitive refractometric sensing. Proceedings of SPIE, 2011, , .	0.8	0
96	Photonic-crystal and optical micro/nano fiber interferometric sensors. Proceedings of SPIE, 2010, , .	0.8	0
97	Evaluation of serial multiplexed photonic crystal fiber interferometric sensors. , 2010, , .		0
98	Embedded optical micro/nano-fibers for stable devices. Optics Letters, 2010, 35, 571.	1.7	41
99	Low-Loss Photonic Crystal Fiber Interferometers for Sensor Networks. Journal of Lightwave Technology, 2010, 28, 3542-3547.	2.7	48
100	Fiber and Integrated Waveguide-Based Optical Sensors. Journal of Sensors, 2009, 2009, 1-3.	0.6	14
101	Highly Sensitive Sensors Based on Photonic Crystal Fiber Modal Interferometers. Journal of Sensors, 2009, 2009, 1-11.	0.6	61
102	Ultra thin nickel transparent electrodes. Journal of Materials Science: Materials in Electronics, 2009, 20, 181-184.	1.1	14
103	Stable transparent Ni electrodes. Optical Materials, 2009, 31, 1115-1117.	1.7	19
104	Refractometry based on a photonic crystal fiber interferometer. Optics Letters, 2009, 34, 617.	1.7	234
105	Photonic-crystal-fiber-enabled micro-Fabryâ€“Perot interferometer. Optics Letters, 2009, 34, 2441.	1.7	116
106	Photonic crystal fiber interferometer for chemical vapor detection with high sensitivity. Optics Express, 2009, 17, 1447.	1.7	127
107	Arbitrary-order all-fiber temporal differentiator based on a fiber Bragg grating: design and experimental demonstration. Optics Express, 2009, 17, 19798.	1.7	84
108	Thermally stabilized PCF-based sensor for temperature measurements up to 1000Â°C. Optics Express, 2009, 17, 21551.	1.7	115

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109	Surface acoustic wave generation in ZX-cut LiNbO ₃ superlattices using coplanar electrodes. Applied Physics Letters, 2009, 95, .	1.5	26
110	High-sensitivity photonic crystal fiber interferometer for chemical vapors detection. , 2009, , .		1
111	Highly versatile in-reflection photonic crystal fibre interferometer. Proceedings of SPIE, 2009, , .	0.8	0
112	An embedded optical nanowire loop resonator refractometric sensor. Optics Express, 2008, 16, 1062.	1.7	108
113	Post-Processed Micro-Structured Optical Fibre Sensors. AIP Conference Proceedings, 2008, , .	0.3	0
114	High sensitivity refractometric sensor based on embedded optical microfiber loop resonator. , 2008, , .		0
115	Enhanced photosensitivity in silicate optical fibers by thermal treatment. Applied Physics Letters, 2007, 90, 111905.	1.5	7
116	Two-mode photonic crystal fiber interferometer for sensing applications. , 2007, , .		1
117	Simple all-microstructured-optical-fiber interferometer built via fusion splicing. Optics Express, 2007, 15, 1491.	1.7	135
118	Tailoring the Electrooptic Response and Improving the Performance of Integrated LiNbO_3 Modulators by Domain Engineering. Journal of Lightwave Technology, 2007, 25, 2402-2409.	2.7	13
119	Temperature-insensitive photonic crystal fiber interferometer for absolute strain sensing. Applied Physics Letters, 2007, 91, .	1.5	200
120	Advanced electro-optical transmitters (Invited Paper). , 2005, , .		0