Valerio Pruneri

List of Publications by Year
in descending order

120 papers	7,865 citations	66315 42 h-index	49868 87 g-index
123 all docs	123 docs citations	123 times ranked	9221 citing authors

#	Article	IF	Citations
1	Mid-infrared plasmonic biosensing with graphene. Science, 2015, 349, 165-168.	6.0	1,167
2	Significant-Loophole-Free Test of Bellâ€™s Theorem with Entangled Photons. Physical Review Letters, 2015, 115, 250401.	2.9	932
3	Strong Loophole-Free Test of Local Realism. Physical Review Letters, 2015, 115, 250402.	2.9	910
4	Refractometry based on a photonic crystal fiber interferometer. Optics Letters, 2009, 34, 617.	1.7	234
5	Temperature-insensitive photonic crystal fiber interferometer for absolute strain sensing. Applied Physics Letters, 2007, 91, .	1.5	200
6	Optical switching at 1.55â€‰Î¼m in silicon racetrack resonators using phase change materials. Applied Physics Letters, 2013, 103, .	1.5	185
7	Tunable plasmons in ultrathin metal films. Nature Photonics, 2019, 13, 328-333.	15.6	181
8	Time-domain separation of optical properties from structural transitions in resonantly bondedÂmaterials. Nature Materials, 2015, 14, 991-995.	13.3	166
9	Ultrastable and Atomically Smooth Ultrathin Silver Films Grown on a Copper Seed Layer. ACS Applied Materials & Interfaces, 2013, 5, 3048-3053.	4.0	156
10	Double-layer graphene for enhanced tunable infrared plasmonics. Light: Science and Applications, 2017, 6, e16277-e16277.	7.7	143
11	Simple all-microstructured-optical-fiber interferometer built via fusion splicing. Optics Express, 2007, 15, 1491.	1.7	135
12	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
13	Photonic crystal fiber interferometer for chemical vapor detection with high sensitivity. Optics Express, 2009, 17, 1447.	1.7	127
14	Photonic-crystal-fiber-enabled micro-Fabryâ€“Perot interferometer. Optics Letters, 2009, 34, 2441.	1.7	116
15	An antireflection transparent conductor with ultralow optical loss (<2 %) and electrical resistance (<6â€‰Î©â€‰sqâ^'1). Nature Communications, 2016, 7, 13771.	5.8	116
16	Thermally stabilized PCF-based sensor for temperature measurements up to 1000ÂºC. Optics Express, 2009, 17, 21551.	1.7	115
17	An embedded optical nanowire loop resonator refractometric sensor. Optics Express, 2008, 16, 1062.	1.7	108
18	Active Control of Surface Plasmon Waveguides with a Phase Change Material. ACS Photonics, 2015, 2, 669-674.	3.2	104

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19	Packaged Optical Sensors Based on Regenerated Fiber Bragg Gratings for High Temperature Applications. IEEE Sensors Journal, 2012, 12, 107-112.	2.4	100
20	Superomniphobic, Transparent, and Antireflection Surfaces Based on Hierarchical Nanostructures. Nano Letters, 2014, 14, 4677-4681.	4.5	91
21	Generation of Fresh and Pure Random Numbers for Loophole-Free Bell Tests. Physical Review Letters, 2015, 115, 250403.	2.9	88
22	Arbitrary-order all-fiber temporal differentiator based on a fiber Bragg grating: design and experimental demonstration. Optics Express, 2009, 17, 19798.	1.7	84
23	Quantum entropy source on an InP photonic integrated circuit for random number generation. Optica, 2016, 3, 989.	4.8	84
24	Highly Flexible Transparent Electrodes Containing Ultrathin Silver for Efficient Polymer Solar Cells. Advanced Functional Materials, 2015, 25, 7309-7316.	7.8	81
25	Near-field photocurrent nanoscopy on bare and encapsulated graphene. Nature Communications, 2016, 7, 10783.	5.8	80
26	A high-brightness source of polarization-entangled photons optimized for applications in free space. Optics Express, 2012, 20, 9640.	1.7	79
27	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
28	Photonic crystal fiber sensor array based on modes overlapping. Optics Express, 2011, 19, 7596.	1.7	75
29	Resonant Visible Light Modulation with Graphene. ACS Photonics, 2015, 2, 550-558.	3.2	71
30	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
31	Ultrathin Transparent Conductive Polyimide Foil Embedding Silver Nanowires. ACS Applied Materials & Interfaces, 2014, 6, 20943-20948.	4.0	70
32	Ultrafast and Broadband Tuning of Resonant Optical Nanostructures Using Phaseâ€Change Materials. Advanced Optical Materials, 2016, 4, 1060-1066.	3.6	67
33	Structural Coloring of Glass Using Dewetted Nanoparticles and Ultrathin Films of Metals. ACS Photonics, 2016, 3, 1194-1201.	3.2	67
34	Durable, superhydrophobic, antireflection, and low haze glass surfaces using scalable metal dewetting nanostructuring. Nano Research, 2013, 6, 429-440.	5.8	66
35	Highly Sensitive Sensors Based on Photonic Crystal Fiber Modal Interferometers. Journal of Sensors, 2009, 2009, 1-11.	0.6	61
36	An Indium Tin Oxide-Free Polymer Solar Cell on Flexible Glass. ACS Applied Materials & Interfaces, 2015, 7, 4541-4548.	4.0	60

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37	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
38	Measurement of sub-pulse-width temporal delays via spectral interference induced by weak value amplification. Physical Review A, 2014, 89, .	1.0	49
39	Low-Loss Photonic Crystal Fiber Interferometers for Sensor Networks. Journal of Lightwave Technology, 2010, 28, 3542-3547.	2.7	48
40	Tunable Complete Optical Absorption in Multilayer Structures Including Ge₂Sb₂Te₅ without Lithographic Patterns. Advanced Optical Materials, 2017, 5, 1600452.	3.6	47
41	Microstructured optical fiber interferometric breathing sensor. Journal of Biomedical Optics, 2012, 17, 037006.	1.4	46
42	Mid-infrared Gas Sensing Using Graphene Plasmons Tuned by Reversible Chemical Doping. ACS Photonics, 2020, 7, 879-884.	3.2	46
43	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
44	Scalable and Tunable Periodic Graphene Nanohole Arrays for Mid-Infrared Plasmonics. Nano Letters, 2018, 18, 5913-5918.	4.5	43
45	Highly stable Agâ€“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
46	Active modulation of visible light with graphene-loaded ultrathin metal plasmonic antennas. Scientific Reports, 2016, 6, 32144.	1.6	42
47	Embedded optical micro/nano-fibers for stable devices. Optics Letters, 2010, 35, 571.	1.7	41
48	Phase-stable source of polarization-entangled photons in a linear double-pass configuration. Optics Express, 2013, 21, 11943.	1.7	37
49	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
50	Space QUEST mission proposal: experimentally testing decoherence due to gravity. New Journal of Physics, 2018, 20, 063016.	1.2	36
51	Fabryâ€“Perot interferometers built by photonic crystal fiber pressurization during fusion splicing. Optics Letters, 2011, 36, 4191.	1.7	35
52	Monolithically Integrated Micro- and Nanostructured Glass Surface with Antiglare, Antireflection, and Superhydrophobic Properties. ACS Applied Materials & Interfaces, 2014, 6, 11198-11203.	4.0	32
53	Frequency conversion of structured light. Scientific Reports, 2016, 6, 21390.	1.6	31
54	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

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55	Midâ€Infrared Pyroresistive Graphene Detector on LiNbO₃. Advanced Optical Materials, 2017, 5, 1600723.	3.6	30
56	Ultrasensitive interferometric on-chip microscopy of transparent objects. Science Advances, 2016, 2, e1600077.	4.7	27
57	Surface acoustic wave generation in ZX-cut LiNbO3 superlattices using coplanar electrodes. Applied Physics Letters, 2009, 95, .	1.5	26
58	Highly transparent and conductive ITO substrates for near infrared applications. APL Materials, 2021, 9, .	2.2	24
59	An ultra-compact particle size analyser using a CMOS image sensor and machine learning. Light: Science and Applications, 2020, 9, 21.	7.7	23
60	Quantum technologies in space. Experimental Astronomy, 2021, 51, 1677-1694.	1.6	23
61	A quantum-enhanced wide-field phase imager. Science Advances, 2021, 7, eabj2155.	4.7	23
62	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
63	Antireflective Multilayer Surface with Self-Cleaning Subwavelength Structures. ACS Photonics, 2021, 8, 894-900.	3.2	22
64	Functionalized Surfaces with Tailored Wettability Determine Influenza A Infectivity. ACS Applied Materials & Interfaces, 2016, 8, 15058-15066.	4.0	21
65	Stable transparent Ni electrodes. Optical Materials, 2009, 31, 1115-1117.	1.7	19
66	Ultrathin Metals on a Transparent Seed and Application to Infrared Reflectors. ACS Applied Materials & Interfaces, 2021, 13, 46990-46997.	4.0	19
67	Phonon-Enhanced Mid-Infrared CO₂ Gas Sensing Using Boron Nitride Nanoresonators. ACS Photonics, 2022, 9, 34-42.	3.2	17
68	Ultrathin Yttriaâ€Stabilized Zirconia as a Flexible and Stable Substrate for Infrared Nanoâ€Optics. Advanced Optical Materials, 2019, 7, 1800966.	3.6	15
69	Interferometric photodetection in silicon photonics for phase diffusion quantum entropy sources. Optics Express, 2018, 26, 31957.	1.7	15
70	Fiber and Integrated Waveguide-Based Optical Sensors. Journal of Sensors, 2009, 2009, 1-3.	0.6	14
71	Ultra thin nickel transparent electrodes. Journal of Materials Science: Materials in Electronics, 2009, 20, 181-184.	1.1	14
72	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

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73	Tailoring the Electrooptic Response and Improving the Performance of Integrated $hbox{LiNbO}_{3}$ Modulators by Domain Engineering. Journal of Lightwave Technology, 2007, 25, 2402-2409.	2.7	13
74	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
75	Diffraction less and strongly confined surface acoustic waves in domain inverted LiNbO3 superlattices. Applied Physics Letters, 2011, 98, .	1.5	12
76	The future of cybersecurity is quantum. IEEE Spectrum, 2018, 55, 30-35.	0.5	12
77	Lipid Vesicle Interaction with Hydrophobic Surfaces: A Coarse-Grained Molecular Dynamics Study. Langmuir, 2016, 32, 12632-12640.	1.6	11
78	Bloch Surface Waves Using Graphene Layers: An Approach toward In-Plane Photodetectors. Applied Sciences (Switzerland), 2018, 8, 390.	1.3	11
79	Ultraâ€Thin Infrared Optical Gain Medium and Opticallyâ€Pumped Stimulated Emission in PbS Colloidal Quantum Dot LEDs. Advanced Functional Materials, 2022, 32, .	7.8	11
80	Antireflective Transparent Oleophobic Surfaces by Noninteracting Cavities. ACS Applied Materials & Interfaces, 2018, 10, 43230-43235.	4.0	9
81	Nanostructured Hybrid-Material Transparent Surface with Antireflection Properties and a Facile Fabrication Process. ACS Omega, 2019, 4, 19840-19846.	1.6	8
82	Enhanced photosensitivity in silicate optical fibers by thermal treatment. Applied Physics Letters, 2007, 90, 111905.	1.5	7
83	NaCl substrates for high temperature processing and transfer of ultrathin materials. Scientific Reports, 2020, 10, 7253.	1.6	7
84	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
85	Passive Decoy-State Quantum Key Distribution with Coherent Light. Entropy, 2015, 17, 4064-4082.	1.1	5
86	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
87	Implementation of a quality by design approach in the potato chips frying process. Journal of Food Engineering, 2019, 260, 22-29.	2.7	4
88	Controlling mid-infrared plasmons in graphene nanostructures through post-fabrication chemical doping. JPhys Photonics, 2021, 3, 034001.	2.2	3
89	Technique for generating periodic structured light beams using birefringent elements. Optics Express, 2018, 26, 28938.	1.7	3
90	Functional photonic crystal fiber sensing devices. , 2011, , .		2

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91	Europeâ€™s Quantum Flagship is taking off. Europhysics News, 2018, 49, 30-34.	0.1	2
92	Two-mode photonic crystal fiber interferometer for sensing applications. , 2007, , .		1
93	High-sensitivity photonic crystal fiber interferometer for chemical vapors detection. , 2009, , .		1
94	Oxidation-free and ultra-smooth thin silver films grown on a copper seed layer. , 2013, , .		1
95	Chemical-specific biosensing through mid-infrared graphene plasmons. , 2016, , .		1
96	Photonic Metasurfaces for Next-Generation Biosensors. , 2018, , .		1
97	A strong loophole-free test of local realism. , 2016, , .		1
98	Lens-Free Interferometric Microscope for Point-of-Care Label-Free Detection of Sepsis Biomarkers. , 2019, , .		1
99	Label-free, scalable and point-of-care imaging platform for rapid analysis of biomarker. , 2019, , .		1
100	Quantum imaging for enhanced microscopy and light modulation. , 2019, , .		1
101	Advanced electro-optical transmitters (Invited Paper). , 2005, , .		0
102	Post-Processed Micro-Structured Optical Fibre Sensors. AIP Conference Proceedings, 2008, , .	0.3	0
103	Highly versatile in-reflection photonic crystal fibre interferometer. Proceedings of SPIE, 2009, , .	0.8	0
104	Photonic-crystal and optical micro/nano fiber interferometric sensors. Proceedings of SPIE, 2010, , .	0.8	0
105	Evaluation of serial multiplexed photonic crystal fiber interferometric sensors. , 2010, , .		0
106	Functional Photonic Crystal Fiber Sensing Devices. , 2011, , .		0
107	Photonic crystal fiber sensor array based on cladding mode resonance. , 2011, , .		0
108	High-visibility photonic crystal fiber interferometer for ultrasensitive refractometric sensing. Proceedings of SPIE, 2011, , .	0.8	0

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109	Corrigendum to â€˜Highly stable Agâ€“Ni based transparent electrodes on PET substrates for flexible organic solar cellsâ€™ [Solar Energy Materials and Solar Cells 107 (2012) 63â€“68]. Solar Energy Materials and Solar Cells, 2013, 108, 223.	3.0	0
110	Competition Between Thermal and Non-Thermal Processes During Femtosecond Switching of Phase Change Materials. , 2014, , .		0
111	Ultrathin metals and nano-structuring for photonic applications. , 2014, , .		0
112	Functionalized Transparent Surfaces with Enhanced Selfâ€Cleaning against Ink Aerosol Contamination. Advanced Materials Technologies, 2017, 2, 1600113.	3.0	0
113	Widefield Super-sensitive Phase Imaging Using N00N State Illumination. , 2021, , .		0
114	Mid-infrared gas sensor based on hybrid graphene nanostructures and ultrathin gas-adsorbing polymer. , 2021, , .		0
115	High sensitivity refractometric sensor based on embedded optical microfiber loop resonator. , 2008, , .		0
116	Graphene as Enabling Material for Infrared Plasmonic Biosensors. , 2016, , .		0
117	Fourier imaging cytometry for optical analysis of phytoplankton and bacteria in ballast water. , 2016, , .		0
118	Transparent and conductive backside coating of EUV lithography masks for ultra short pulse laser correction. , 2017, , .		0
119	Generation of Periodic Structured Illumination Patterns with Compact Birefringent Elements. , 2019, , .		0
120	Integrated Nanophotonic Biosensors for Point-of Care Diagnostics and Bioanalytical Applications. , 2019, , .		0