Curriculum Vitae – Valerio Pruneri – updated Jan 2025

ICREA Prof., Corning Inc. Chair, Group Leader at ICFO.

ICFO – The Institute of Photonic Sciences, Castelldefels (Barcelona).

In brief

- Since 2006, ICREA Industrial Professor, Corning Inc. chair and group leader at ICFO. Prior to ICFO, from 2000 to 2006, he had worked in industry for Avanex Corp. (formerly Corning OTI). Since 2010 visiting Corning Inc. in USA, for a cumulative period of about 2 years.
- Current research topics: photonic engineering, quantum technologies and nano-photonics: energy-efficient communication and information displays, quantum cryptography, quantum imaging, quantum random number generation, photonic sensing using artificial intelligence.
- About 100 R&D projects, mostly as coordinator or principal investigator, funded by national and international agencies (European Commission, Ministry of Research and Innovation, European Space Agency) or in collaboration with industries in Europe and USA, including Corning, Carl Zeiss, HP, ABB, IBM, SEAT/Volkswagen, BASF.
- Co-founder and board member of 3 spin-offs, with two of them receiving the EIC accelerator award: Quside (www.quside.com) on integrated quantum random number generators for secure communication and high performance computation, Sixsenso (www.sixsenso.com) on image sensing systems for detection of micro-organisms in water and Luxquanta (www.luxquanta.com) on quantum cryptography systems. A 4th spin-off on phase imaging for semiconductor and live cells is incubating (www.shinephi.tech).
- Since 2015, raised more than 20 M€ of competitive and private funding, and coordinated 7 European projects (RAIS, QMIC, NANOGLASS, CIVIQ, LIM, EuroQCI-Spain, QSNP). CIVIQ (2018-22) and QSNP (2023-2026) are Quantum Flagship, 10 and 25 M€, respectively.
- About 200 refereed journal papers (including Nature, Science, Nature Photonics, Nature Materials, Nature Communications, Science Advances, etc…), more than 100 invited talks. Google h-index 64. More than 65 granted or pending patent families.
- Supervised more than 20 PhD Thesis to completion. Three of them awarded with top National, European and International Prizes (Cerca Pioneer Award, MIT Technology Review 35 and Photonics 21 European Student Innovation Award).
- More than 40 international conference committees; in particular, general and technical chair of the European Conference on Lasers and Electro-optics (CLEO Europe) 2017 and 2015 and technical/general chair of the European Conference on Integrated Optics (ECIO) 2012.
- For his research and technology transfer achievements: Pirelli Fellowship, Philip Morris Prize, IBM Faculty Award, Duran Farell Prize, Ignite award (SLAS Europe), Paul Ehrenfest Best Paper Award, National Innovation Award for new companies (Luxquanta), Corning Inc. chair, RSEF-BBVA Prize for Physics, Innovation and Technology.

Employment history

2006-	Industrial Prof. (ICREA), Corning Inc. Chair and ICFO Group Leader in Optoelectronics (currently about 30 members, including PhD students, post docs and research engineers).
2000-06	Head of Basic Research, Avanex Corp., now part of Lumentum, and formerly Corning OTI (Corning Inc.) and Optical Technologies Italia (Pirelli), Italy.
1996-00	Senior Research Fellow and Research Fellow, Optoelectronics Research Centre – University of Southampton, UK.

Education

1993-96 PhD in Physics (Lasers and Optoelectronics) - Optoelectronics Research Centre, University of Southampton, UK.

1986-92 "Laurea" (Master) in Nuclear Engineering "cum laude" - Politecnico di Milano, Italy.

Prizes and fellowships

2023 "Spanish Royal Physics Society (RSEF) - BBVA Foundation" Prize - Physics, Innovation and Technology, Spain.

2023 National Innovation Award for new companies (Luxquanta, based on technology developed by the group), Spain.

2022 Ignite award (SLAS Europe) for launchpad project Shinephi, Ireland.

2019 Cerca Pioneer Award to PhD student R. Terborg under V. Pruneri's supervision, Spain.

2018 Cerca Pioneer Award to PhD student C. Abellan under V. Pruneri's supervision, Spain.

2015 Paul Ehrenfest Best Paper Award, Institute for Quantum Optics and Quantum Information, Academy of Science, Austria.

2012- Corning Inc. chair, Corning Inc., USA.

2012 Duran Farell Prize for Technological Research, Spain.

2011 Photonics21 European Student Innovation Award 2011 (received by PhD student D. S. Ghosh under V. Pruneri's supervision), Europe.

2011 Special mention at the Barcelona International Motor Show Awards for the development of a Head-Up-Display (with Davide Janner and Daniel Infante), Intern. Motor Show.

2010 IBM Faculty award, IBM, USA.

2007-09 Fellow of I3 programme, Ministry of Science and Innovation, Spain.

1997 Philip Morris Prize, Philip Morris Int., Italy and USA.

1997-00 Pirelli Fellow in Photonics, Pirelli Cables and System, UK.

1993 PhD studentship for international post-graduate studies, Politecnico di Milano, Italy.

1987-91 "Ing. C. Cami" studentship for undergraduate excellence, Politecnico di Milano, Italy.

Advisory boards and other honours

2021- Co-founder and board member of Luxquanta Tech. (www.luxquanta.com)

2020- Co-founder and board member of Sixsenso Tech. (www.sixsenso.com)

2017- Co-founder and board member of Quside Tech. (www.quside.com)

2017 Technical advisor of Medlumics

2016-22 Associate Editor of Optica (Optical Society of America)

2015 Advisory board of B-able member (high technology seed capital).

2013-20 European Quantum Electronics Division (QEOD) board member, European Physical Society.

2011- Advisory board member of VLC Photonics.

2009-13 Chair of Photonics panel of the National Evaluation and Foresight Agency, Ministry of Science and Innovation.

2009- Advisor of SPIE student chapter at ICFO.

Major scientific achievements and technical innovations

- High TRL continuous variable QKD system for quantum-safe cryptography. Evidence: *National Prize for creation of new companies* and spin-off *Luxquanta* incorporated 2021 now employing more than 30 people. Luxquanta received the EIC accelerator award.
- High bit rate and low latency quantum random number generator (QRNG) for secure communication and high-performance computing, in collaboration with M. Mitchell's group. Evidence: *Paul Ehrenfest Best Paper Award* to three landmark experiments at NIST, IQOQI (Vienna) and TU Delft. Also, spin-off *Quside* incorporated in 2017 now employing more than 40 people. Quside received the EIC accelerator award.
- Multifunctional nano-structured surface and high-figure-of-merit transparent conductors based on ultrathin metals and their use in energy efficient information and communication, and energy generation, devices. Evidence *Corning Inc. Chair/Professorship*, *IBM Faculty Award* and *PhD student Photonics 21 European Innovation Award*.
- Lens free imaging technology: scatterometer, image cytometer and interferometric reader for material inspection, particle analysis, micro-organism counting and biomarkers detection. Evidence: Spin-off S*ixsenso* incorporated in 2020 now employing 4 people, *Ignite Award (SLAS Europe), PhD student Cerca Pioneer Award.*
- Integrated head-up display for cars using nano-structured surfaces and laser projection. Evidence: *Duran Farell Prize for Technological Research*.
- Low driving voltage domain inverted and single RF/DC section for energy-efficient integrated lithium niobate modulators (industry product development).
- A tunable laser for dense wavelength division multiplexing capable of covering L and C bands (industry product development).
- High conversion efficiencies (to that date) in micro-structured poled crystals and optical fibres for second harmonic generation and optical parametric generation. Evidence: *Pirelli Research Fellowship*.
- Among the first demonstrations of pulsed optical frequency conversion using quasi-phase-matching. Evidence: *Philip Morris Prize*.

Selection of 10 recent projects and funding (In total about 100 projects, a significant portion directly sponsored by industry. Since 2015, coordination of 7 EU projects and more than 20 M€ funding).

1. Reference: Nº 101080116. Title: Quantum Secure Networks Partnership (QSNP). Funding body: European Commission (HORIZON-FPA-SGA). PI: Valerio Pruneri, ICFO. Start and end date: 01/03/2023-31/08/2026. Grant amount: 2.051.553€. Participation: Coordinator

2. Reference: Nº 101082596. Title: Quantum devices and subsystems for communications in space (QUDICE). Funding body: European Commission (HHORIZON-CL4-2021-SPACE-01). PI: Valerio Pruneri, ICFO. Start and end date: 01/01/2023-31/05/2025. Grant amount: 613.915€. Participation: Principal Investigator

3. Reference: Nº 956419. Title: Nano-structured glass for future display and communication technologies (NANO-GLASS). Funding body: European Commission (H2020-MSCA-ITN-2020). PI: Valerio Pruneri, ICFO. Start and end date: 01/03/2021-28/02/2025. Grant amount: 1.003.620€. Participation: Coordinator

4. Reference: Nº 820466, Title: Continuous Variable Quantum Communications (CiViQ), Funding body: FET Quantum Technologies Flagship (H2020-EU.1.2.3.), European Commission, Start and end date: 01/10/2018-30/09/2021, Grant amount: 1.158.320€, Participation: Coordinator.

5. Reference: Nº 820405, Title: Quantum Random Number Generators: cheaper, faster and more secure (QRANGE). Funding body: FET Quantum Technologies Flagship (H2020-EU.1.2.3.), European Commission, Start and end date: 01/10/2018-30/09/2021, Grant amount: 443.750€, Participation: Principal Investigator.

6. Reference: Nº 801060, Title: Quantum-enhanced on-chip interference microscopy (Q-MIC), Funding body: FET-OPEN Research and Innovation Actions (H2020-EU.1.2.1.), European Commission, Start and end date: 01/10/2018-30/09/2021, Grant amount: 750.367€, Participation: Coordinator.

7. Reference: Nº 642356, Title: Integrated and portable image cytometer for rapid response to Legionella and Escherichia coli in industrial and environmental waters (CYTO-WATER), Funding body: H2020-WATER-2014-two-stage, European Commission, Start and end date: 01/06/2015-31/05/2018, Grant amount: 424.700 € Participation: Principal Investigator

8. Reference: Nº 644956 Title: Scalable, point-of-care and label free microarray platform for rapid detection of Sepsis (RAIS) Funding body: European Commission, H2020-ICT- 26 PI: Valerio Pruneri, ICFO. Start and end date: 01/01/2015-31/12/2017 Grant amount: 658.255 €, Participation: Coordinator

9. Reference: PID2019-106892RB-I00. Title: Tunable Surfaces for Optical Imaging (TUNASURF). Funding body: MICIU (Proyectos I+D+i 2019). PI: Valerio Pruneri, ICFO. 01/06/2020-31/05/2023. Grant amount: 256.036 €. Participation: Coordinator

10. Corning Lab and Chair program; Corning Inc.; 09/10/12 – 31/08/27, Coordinator. Value: confidential.

Selection of 10 recent journal publications (in total about 200)

1. D. Rizzotti, S. Signorini, C. Harvey, M. Fokine, **V. Pruneri**, "Silicon core fibers: A new platform for quantum light generation", *APL Photonics* **9**, 091301 (2024).

2. J. Aldama, S. Sarmiento, I. H. López Grande, S. Signorini, L. Trigo Vidarte, **V. Pruneri**, "Integrated QKD and QRNG photonic technologies", review paper, *J. Light. Technol.* **40**, 7498 (2022).

3. Camphausen, R ; Cuevas, A; Duempelmann, L ; **Pruneri, V**, "A quantum-enhanced wide-field phase imager", *Science Advances* **7**, DOI: 10.1126/sciadv.abj2155 (2021).

4. R. Hussain, M. Alican Noyan, G. Woyessa, R. R. Retamal Marín, P. Antonio Martinez, F. M. Mahdi, V. Finazzi, T. A. Hazlehurst, T. N. Hunter, T. Coll, M. Stintz, F. Muller, G. Chalkias, **V. Pruneri**, "An ultra-compact particle size analyser using a CMOS image sensor and machine learning" *Nature Light Science & Applications* **9**, 21 (2020).

5. R. A. Maniyara, D. Rodrigo, R. Yu, J. Canet-Ferrer, D. S. Ghosh, R. Yongsunthon, D. E. Baker, A. Rezikyan, F. J. García de Abajo, **V. Pruneri**, "Tunable plasmons in ultrathin metal films", *Nature Photonics* **13**, 328 (2019).

6. 4. F. Yesilkoy, R.A. Terborg, J. Pello, A. Belushkin, Y. Jahani, **V. Pruneri*** and H. Altug* (*corresponding authors), "Phase-sensitive plasmonic biosensor using a portable and a large field-of-view interferometric imager", *Nature Light Science & Applications* **7**, 17152 (2018).

7. R. Abraham Maniyara, V.K. Mkhitaryan, T.L. Chen, D.S. Ghosh and **V. Pruneri**, "An antireflection transparent conductor with ultralow optical loss and electrical resistance", *Nature Communications* **7**, 13771 (2016).

8. R. A. Terborg, J. Pello, I. Mannelli, J. P. Torres and **V. Pruneri**, "Ultrasensitive interferometric on-chip microscopy of transparent objects", *Science Advances* **2**, e1600077 (2016).

9. C. Abellan, W. Amaya, D. Domenech, P. Muñoz, J. Capmany, S. Longhi, Morgan W. Mitchell, **V. Pruneri**, "Quantum entropy source on an InP photonic integrated circuit for random number generation", *Optica* **3**, 989 (2016).

10. B. Hensen et al., "Loophole-free Bell inequality violation using electron spins separated by 1.3 km", *Nature* **526**, 682 (2015).

Selection of 10 recent patent families (in total, more than 65 granted or pending patent families)

1. **V. Pruneri**, R. Terborg, S. Haegele, L. Duempelmann, "Apparatus for optical imaging", WO2025002973.

1. **V. Pruneri**, A. Noyan, A. Grudinin, "Identification of 3D objects", US11898963 (B2), EP4012386 (B1).

2. **V. Pruneri** and R. Camphausen, "Optical endoscope", EP3719557 (B1), US2020310103 (A1).

3. **V. Pruneri**, C. Abellan, W. Amaya and M. Mitchell, "Method for physical random number generation using a vertical cavity surface emitting laser", US12080993 (B2), US11631964 (B2).

5. **V. Pruneri**, C. Abellan, W. Amaya and M. Mitchell, "Process for quantum random number generation in multimode laser cavity", EP3369148 (B1), US9710230 (B2).

6. **V. Pruneri** and R. Maniyara, "Transparent and electrically conductive coatings containing non-stoichiometric metallic nitrides", US201615371904.

7. **V. Pruneri**, P. Martinez and M. Jofre, "Apparatus for measuring light scattering", US9857300 (B2), EP2905605 (A1).

8. **V. Pruneri**, F. Koppens, D. Janner and F. Gatti, "Electronic platform comprising an ABO3 crystal and graphene, method for its manufacture and chip comprising the same", US9548435 (B2), EP2898550 (B1).

9. **V. Pruneri**, M. Jofre and J.M. Perez Rosas, "Image cytometer for characterization and quantification of particulate samples", US10346972 (B2), CN106066315 (B), EP3086155 (A1).

10. **V. Pruneri**, N. Formica and D.S. Ghosh, "Transparent electrode and substrate for optoelectronic or plasmonic applications comprising silver", EP2973728 (B1), WO2014140297 (A1).

Selection of 10 recent invited talks at international conferences (in total, more than 100)

1. Advanced PICs for AI and quantum, IEEE Photonics Conference, Roma, 10-14 November 2024.

2. Quantum Communication and Information (QCI) Days, Vienna, Austria, January 2024.

3. European Conference on Optical Communication (ECOC), Basel, Switzerland, Sep 2022.

4. Next Generation Quantum Networking Workshop, Bristol, UK, April 2021.

5. Materials Research Society (MRS) Fall Meeting, Boston, USA, December 2019.

6. Frontiers in Optics 2019, Washington DC, USA, September 2019.

7. SPIE Nanoscience + Photonics - Quantum Nanophotonic Materials, Devices, and Systems 2019, San Diego, USA, August 2019.

8. European Conference on Integrated Optics (ECIO), Ghent University, Belgium, April 2019.

9. OSA Integrated Photonics Research, Silicon and Nanophotonics, Zürich, Switzerland, July 2018.

10. Cleo Pacific Rim, OECC & PGC, Singapore, July-August 2017.

Selection of international conference committees (in total >40)

- *Technical/General co-chair*: European Conference on Lasers and Electro-optics (CLEO Europe) 2017 and 2015.
- *Technical /General chair*: European Conference on Integrated Optics (ECIO) 2012.
- *Member of steering/technical committee:* ECIO 2012, 2010, 2008, 2007, 2005 and 2003.
- *Technical committee member:* European Conference on Optical Communication (ECOC) 2016, 2015, 2014, 2013, 2012, 2011, 2010, 2009 and 2008.

Student supervision and teaching

Supervised about 25 PhD students to completion, more than 50 Master students and taught courses in Optoelectronics and Photonics at Master level. The following **PhD thesis** were defended at ICFO under V. Pruneri's supervision since 2006:

1. Compact Phase Imaging Platform and its Application to Material Science and Manufacturing, Sebastian Hägele
2. Transparent surfaces based on ultrathin materials with tailored optical and biological functionalities, C. Graham
3. Toward integrating continuous-variable quantum key distribution technology, J. Aldama
4. Quantum-enhanced imaging with SPAD array cameras, R. Camphausen
5. Highly Percolated Ultra-Thin Metal Films for Reconfigurable Metasurfaces, D. Martinez
6. Mid-Infrared Surface Sensing Based on Two-Dimensional Materials, N. Bareza
7. Imaging cytometry technology for environmental and biomedical applications, J. M. Pérez Rosas
8. Multifunctional optical surfaces for optoelectronic devices, J. Rombaut
9. Detection of particles, bacteria and viruses using consumer optoelectronic components, R.B. Hussein
10. Interactions and optical properties of microorganisms on surfaces, R. Sibilo
11. Nano-structured transparent conductors for the optoelectronics industry, R. Maniyara
12. Lens-free interferometric microscope for transparent materials, R. A. Terborg
13. Optical surfaces for mid-infrared sensing, K. K. Gopalan
14. Quantum random number generators for industrial applications, C. Abellán
15. Scalable techniques for graphene on glass, M. Marchena Martín-Francés
16. Nanophotonics of ultrathin films and 2D periodic structures: A combined experimental and theoretical study, V. Mkhitaryan
17. Self-cleaning optical surfaces for the inkjet and 3d printing industry, M. A. Noyan
18. Micro-nano structured optical devices using $Ge_2Sb_2Te_5$, M. Rudé
19. Sources of photonic entanglement for applications in space, F. Steinlechner
20. Mechanically flexible transparent conductors based on ultrathin metallic layers, N. Formica
21. Integrated photonic transmitters for secure space quantum communication, M. Jofre
22. Ultrathin metal transparent electrodes for the optoelectronics industry, D. S. Ghosh
23. Micro-structured ferroelectric superlattice for efficient acousto-optic devices, D. Yudistira

24. Micro-nano structured electro-optic devices in LiNbO3 for communication and sensing, D. Tulli

List of publications and patents

Granted or pending patent families: >65

Journal papers and proceedings: >220

Invited or keynote talks at Conferences: >110

Regular contributions (oral or poster) at Conferences: >140

h-index: 64 (Google Scholar); 54 (Web of Science, WoS)

Granted or pending patent families (several ones are not yet published). From WoS.

	Inventors	**Title**	**Patent Number**	**Indexed Date**
1	GRAHAM C L; PRUNERI V; SENARATNE W; THELEN D M	Antimicrobial article comprises substrate comprising first and second major surfaces, optional adhesion layer disposed on first major surface of substrate, discontinuous islands comprising copper, silver and/or gold, and dielectric layer	WO2024182189-A1	2024-09-29
2	LOPEZ GRANDE I; STEIN A; PRUNERI V; GRANDE I L	Optical system for use in quantum key distribution system for applying relative phase modulation between orthogonal polarization modes of transmitter using double pass configuration, has active polarization state control unit for applying relative phase modulation between polarization states	EP4351043-A1; US2024137215-A1	2024-05-03
3	PRUNERI V; RATAN R; PROTOPAPA P; NOYAN A; GRUDININ A	Method for realizing identification, tracking and/or tracing of gemstones, involves processing spectral information using machine learning model to generate set of outputs of model from which identification information is derived	EP4293346-A1; WO2023242131-A1	2024-01-07
4	ONGARO A; HUSSAIN R; PRUNERI V; TORNER L	Device for detecting airborne particulate matter in aerosols, has fluidic apparatus that captures and resuspends portion of airborne particles of sample, and delivers resuspended airborne particles to optical sensor, where sensor detects airborne particulate matter in delivered airborne particles	EP4290210-A1; US2023400399-A1	2023-12-26
5	BHATTACHARYYA I; MARCHENA MARTIN-FRANCES M; MAZUMDER P; PRUNERI V; MARCHENA M M; BHATTACHARYA I	Glass article useful in device, comprises ion-exchanged glass layer, negatively doped graphene layer having negatively doped graphene layer first major surface and negatively doped graphene layer second major surface	WO2023014579-A1; KR2024044463-A; CN118103207-A	2023-03-04
6	PRUNERI V; PAULILLO B; MAZUMDER P; CERCOS D M; MANIYARA R A	Article comprises body, where body comprising material and transmittance, transmittance is measured utilizing spectrophotometer and spectrometer, and cupric oxide (CuO) in direct contact with material of body	US2022380882-A1	2023-02-18

7	GHASEMI S; ETCHEVERRY S; PRUNERI V; GASEMISIDE; SEBASTIAN E	Feed-forward carrier recovery method for use in coherent optical communication, involves determining phase difference between received optical signal and local oscillator signal, and recovering carrier information of signal pulse	WO2022199859-A1; KR2023157504-A; CN117356069-A; EP4315733-A1; JP2024510770-W; US2024171287-A1	2022-10-27
8	PRUNERI V; PEREZ CORONADO A M; ROMBAUT SEGARRA J; CORZO GARCIA B	Polypropylene membrane used in device for filtration, osmosis, concentration and/or dialysis, is coated with organomethoxysilane alone or in combination with oxide particles	WO2022162251-A1; EP4286035-A1	2022-09-16
9	PRUNERI V; ETCHEVERRY S; LOPEZ GRANDE I; IGNACIO L G; SEBASTIAN E; ECHEVERRY S; LOPEZ G I	Network node e.g. end node, for use in optical fiber network, has control unit switching operation of quantum key distribution communication unit between continuous-variable-quantum key distribution mode and discrete-variable mode	WO2022135746-A1; KR2023124645-A; EP4268414-A1; JP2024500572-W; US2024056294-A1	2022-07-19
10	PRUNERI V; ROMBAUT SEGARRA J; MAZUMDER P	Antireflection multilayer article for e.g. photovoltaic cells, has two layers with different refractive indices material deposited on top of one another, and nanostructure including refractive index material equal to any of layers	EP4016141-A1	2022-07-12
11	PRUNERI V; NOYAN M A; GRUDININ A	Apparatus for identifying e.g. diamonds based on spectroscopy and machine learning, has processors for processing obtained spectral data and generating identification result using trained machine learning model	EP4012386-A1; WO2022122847-A1; EP4012386-B1; EP4260050-A1; US2023393078-A1; IN202317030853-A; US11898963-B2; US2024133821-A1	2022-07-25
12	PRUNERI V; MAZUMDER P; CARRILERO A	Composition used for electronic devices, comprises silicon nanostructures and silica-containing glass substrate comprises nanopillar, the silicon nanostructures extend from the nanopillar of the silica-containing glass substrate and also comprises nanotubes	US2022098094-A1; US11807571-B2	2022-05-14
13	MANIYARA R; MAZUMDER P; PRUNERI V; MANIYARA R A	Producing article involves depositing layer of transparent conductive material on substrate, and annealing transparent conductive material	US2021095371-A1; CN112582483-A; US11891687-B2	2021-05-27
14	PRUNERI V; JOFRE M; MARTINEZ CORDERO P A; MARTINEZ C P A	Apparatus for detecting optical emission of individual elements of sample of microorganisms, has pumping device that circulates microorganism sample such that only single element is present in field of vision of detection device	WO2020212628-A1; CN113692528-A; EP3957977-A1; US2022178811-A1; JP2022528795-W; JP7274605-B2; EP3957977-B1; ES2956224-T3	2020-11-05
15	MAZUMDER P; PRUNERI V; ROMBAUT J	Structured polymer/structured glass fabrication process for anti-reflective transparent oleophobic surfaces for display device, involves arranging dewettable film over transparent substrate, and annealing film to form islands	WO2020210079-A1; CN113710384-A; EP3953073-A1; US2022179126-A1; CN113710384-B; US11994651-B2	2020-11-05

16	CARRILERO A; MAZUMDER P; PRUNERI V	Composition used in electronic, optoelectronic, electro-chemical, and electromechanical devices, such as photodetectors comprises silicon nanostructures that extend from nanopillars of silica-containing glass substrate and contain nanotubes	US2020290921-A1; US11225434-B2	2020-10-12
17	ETCHEVERRY CABRERA S; RAMANA RAJU VALIVARTHI V; PRUNERI V; ETCHEVERRYCABRERA S; RAMANARAJUVALIVARTHI V; RAMANA R V V; ETCHEVERRY C S	Apparatus for generating optical pulses with controlled distribution of quadrature values, has pulse driver that supplies electrical pulses with pre-determined probability distribution of amplitudes to laser device	EP3703283-A1; WO2020174034-A1; KR2021129709-A; CN113748620-A; US2022085895-A1; KR2576065-B1	2020-09-16
18	PRUNERI V; PEREZ ROSAS J M; SIBILO R; HURTH C	Optical device for detecting fluorescence emission of sample of particles located on surface, comprises light source configured to emit beam of light towards surface where sample of particles is located	WO2020161364-A1; EP3922978-A1	2020-08-24
19	MARCHENA MARTIN-FRANCES M; MAZUMDER P; PRUNERI V; MARTIN-FRANCES M M; MARCHENA M M	Forming graphene device involves providing a glass substrate with blocking layer set to form stack and first electrode and second electrode, increasing temperature of stack and applying an external electric potential to first electrode	WO2020081306-A1; TW202028110-A; KR2021075174-A; CN113165881-A; US2021347689-A1; CN113165881-B; TW833821-B1	2020-05-14
20	PRUNERI V; TERBORG R A; PELLO J; JOFRE M; MARTINEZ P	Apparatus for exploring optical property of sample, has detector that detects recombined reflected beam in which sample is positioned in optical path of shifted beams/on rear surface of reflective surface in optical path of beams	WO2019224405-A1; EP3798612-A1; US2021364432-A1; US11686680-B2	2019-12-11
21	PRUNERI V; CAMPHAUSEN R	Optical endoscope used for e.g. visual inspection inside human body, has block of optical waveguides that is composed of rigid material with two or more other optical waveguides that are formed integral with block of optical waveguides	WO2019106209-A1; AU2017441379-A1; CA3083870-A1; US2020310103-A1; EP3719557-A1; CN111788509-A; JP2021514797-W; HK40032189-A0; JP7289845-B2; AU2017441379-B2	2019-06-21
22	ARLIGUIE T F; CHANG T; MARTIN-FRANCES M M; MAZUMDER P; PRUNERI V; WAGNER F C	Forming functionalized device substrate e.g. cellular phone substrate by forming conductive layer on growth substrate, applying polymeric layer to device substrate, coupling polymeric layer to conductive layer, and peeling growth substrate	WO2019099826-A1; KR2020088869-A; EP3710403-A1; US2020308005-A1; US11214491-B2; US2022098043-A1; KR2650926-B1; US12006221-B2	2019-06-19

23	PRUNERI V; ABELLAN SANCHEZ C; AMAYA W; MITCHELL M; ABELLANSANCHEZ C; ABELLAN S C; ABELIAN S C	Method for physical generation of random number in emitting laser of surface of vertical cavity, involves detecting and converting optical pulses into electrical analog pulses, and digitizing electrical analog pulses into random numbers	WO2019086730-A1; KR2020074981-A; CN111344916-A; EP3709456-A1; US2021216284-A1; KR2371507-B1; HK40029680-A0; US11631964-B2; CN111344916-B; US2023291174-A1	2019-06-07
24	PRUNERI V; NOYAN M A	Printing system, has first electrode layer positioned adjacent to component, and controller for applying voltage signal to electrodes to form potential difference between electrodes of first layer and/or between electrodes of second layer	WO2018194561-A1	2018-11-12
25	PRUNERI V; MANIYARA R A	Composition for photolithographic mask, comprises substrate, and coating comprising electroconducting layer(s) having preset thickness and comprising nitride(s) of chromium, titanium, aluminum and/or silicon	US2018157162-A1	2018-07-06
26	PRUNERI V; MANIYARA R A	Composition for photolithographic mask, comprises substrate, and coating deposited on substrate surface and comprising electroconducting layer(s) of preset thickness and compound(s) chosen from metal nitride, metal boride and metal carbide	US2018157160-A1; WO2018104573-A1; US10775693-B2	2018-07-06
27	LI C; LIU X; SONG Z; SONI K K; SENARATNE W; PRUNERI V; MARTIN-FRANCES M M	Article used in electronic device, comprises substrate, and coating layer comprising three-dimensional construction of graphene structure having hollow core of spherical structure with specified average surface area and average diameter	WO2017165369-A1; TW201802280-A; US2020262745-A1; US11059741-B2; US2021323860-A1; US11548811-B2; US2023219840-A1	2017-12-29
28	ABELLAN C; AMAYA W; MITCHELL M W; PRUNERI V	Process for producing random numbers by quantum random number generator, involves detecting resulting random beating pattern between multiple modes of multimode laser	US2017115960-A1; WO2017071901-A1; US9710230-B2; KR2018073663-A; CN108352677-A; EP3369148-A1; JP2019500707-W; EP3369148-B1; CN108352677-B; JP6945539-B2; KR2626031-B1	2017-01-06
29	JOFRE M; PEREZ ROSAS J; PRUNERI V; PEREZ R J M; JOFFRE M; PEREZROSAS J M	Image cytometer for characterization and quantification of particulate samples, has light sensor array positioned at focal point for detecting imaged Fourier transform of optical signal generated in spatial frequency domain	EP3086155-A1; US2016313231-A1; CN106066315-A; JP2016206199-A; US10346972-B2; CN106066315-B; JP6749782-B2	2016-01-08
30	PRUNERI V; YU R; DE ABAJO F J G; GARCIA DE ABAJO F J	Optical modulating device, has resonating optical structure in which light intensity of optical beam is amplified, and ultrathin layer formed inside or in proximity of resonating structure operating in linear optical regime	US2016261086-A1; WO2016141125-A1; TW201719261-A	2016-01-08

31	JOHNSON B Y; LIU X; MAZUMDER P; SONI K K; CHEN T L; MARTIN-FRANCES M M; PRUNERI V; CHEN T; MARCHENA M; MARTIN F M M	Formation process of graphene-coated glass, involves heating sandwich structure to predetermined temperature above release temperature of thermal release tape to remove tape or graphene from flexible glass substrate	US2016176755-A1; WO2016106039-A1; TW201627247-A; EP3245168-A1; US9828285-B2; KR2017127410-A; CN107428600-A; EP3245168-B1; TW687377-B1	2016-01-08
32	BAKER D E; CARBONELL C G; DAWSON-ELLI D F; MAZUMDER P; PRUNERI V; TIAN L	Method for forming patterned article, involves dewetting portion of layer of continuous ultra-thin metal-containing film stack to produce discrete metal-containing dewetted islands on surface of another layer of film stack	US2016158798-A1; US10155248-B2	2016-01-08
33	CARRILERO A; MAZUMDER P; PRUNERI V	Composition useful in electronic, optoelectronic, electrochemical, and electromechanical devices, comprises silicon nanostructure (comprising nanotube) and silica-containing glass substrate comprising nanopillar	US2016002096-A1; WO2016004040-A1; TW201605717-A	2016-01-08
34	JOFRE M; MARTINEZ P A; PRUNERI V	Apparatus e.g. turbidimeter, for measuring light scattering of e.g. liquid sample, has spatial filter placed between sample and image sensor, and measuring unit for measuring power of beams with vector lower than scattering angle	EP2905605-A1; US2018149589-A1; US10302560-B2; EP2905605-B1	2015-01-02
35	JOFRE C M; MARTINEZ C P A; PRUNERI V	Apparatus for measuring light scattering of sample upon passing through film or sheet of material in industry fields, has measuring units for measuring total power, which reaches sensor, and measuring power of beams with vector	US2015219555-A1; US9857300-B2	2015-01-02
36	HART S D; KOCH K W; TULLI D; MAZUMDER P; PRUNERI V; SACHENIK P A; TIAN L; OSMOND J; CARRILERO A	Micro- and nano-textured and surface article e.g. touch-sensitive display screen for electronic device, comprises nano-sized protrusions having average height and longest lateral cross-sectional dimension of about specific nanometer	US2015174625-A1	2015-01-02
37	INFANTE GOMEZ D; MARTINEZ CORDERO P A; PRUNERI V; CORDERO P A; GOMEZ D	Optically transparent support for supporting bubbles obtained from specimens e.g. pollen, has sliding part provided with coverslip, and biocompatible substrates provided in hydrophobic surface	ES2533144-A1; ES2533144-B1	2015-01-02
38	FORMICA N; GHOSH D S; PRUNERI V; GHOSH D	Transparent electrode useful in substrate for optoelectronic or plasmonic applications, comprises transparent substrate and at least one double layer on top of substrate	WO2014140297-A1; EP2973728-A1; EP2973728-B1; ES2751450-T3	2014-01-03
39	JANNER D; JOFRE CRUANYES M; PRUNERI V	Discretized plate integrated compact optical measurement system, has system module provided with light source and matrix detector, and discretized plate arranged between light source and matrix detector	ES2489965-A1; ES2489965-B2	2014-01-03
40	CARRILERO A; MAZUMDER P; OSMOND J; PRUNERI V; SACHENIK P A; TIAN L	Textured article for touch-sensitive display screen of electronic device, has protrusions that are randomly oriented on surface of substrate so as to cover specific area fraction of surface of substrate	US2013157007-A1; US9023457-B2	2013-01-04

41	MAZUMDER P; PRUNERI V; QUESADA M A; SENARATNE W; TIAN L	Textured article used in fabricating touch screen display for electronic device, comprises substrate (containing e.g. silicate glass and optionally e.g. alkali modifier), and first set and second set of nanostructured topographical features	US2013149496-A1	2013-01-04
42	INFANTE GOMEZ D; JANNER D; PRUNERI V	Front projection head-up display system for displaying virtual image information e.g. traffic speed, on dashboard of vehicle, has optical system located between diffuse imaging system and window for increasing depth of virtual image	ES2406205-A2; ES2406205-R1; ES2406205-B1	2013-01-04
43	BAKER D E; CARBONELL C G; DAWSON-ELLI D F; MAZUMDER P; PRUNERI V; TIAN L	Patterned article has continuous ultra-thin metal-containing film or film stack that is arranged on surface of substrate	US2013136894-A1; US9296183-B2	2013-01-04
44	CARRILERO A; PETERS J; PRUNERI V	Substrate of extreme ultraviolet (EUV) photolithographic mask used in semiconductor industry, has coating portion that is deposited on a rear surface of main portion and is provided with conducting layer	WO2013053889-A1; EP2581789-A1; US2014295330-A1; JP2014532313-W; US9519209-B2; JP6107829-B2; EP2581789-B1	2013-01-04
45	GATTI F; JANNER D; KOPPENS F; PRUNERI V	Electronic platform, has substrate consisting of perovskite crystal and two-dimensional conductive sheet layer of carbon atoms, and conductor provided on top of crystal face orthogonal axis with axis of spontaneous polarization	ES2395949-A1; ES2395949-B1; WO2014044702-A1; EP2898550-A1; US2015236234-A1; US9548435-B2; EP2898550-B1	2013-01-04
46	PRUNERI V; MORGAN M; CRUANYES M J; ALONSO M C; CRUNAYES M J; CURTY ALONSO M; JOFRE CRUANYES M; PRURENI V; MITCHELL M; CURTY A M; JOFRE C M	Method for producing random numbers using quantum random number generator (QRNG), involves detecting resulting random amplitude signals by fast photodiode (PIN)	US2013036145-A1; CH705137-A2; ES2378024-A1; ES2378024-A8; ES2378024-B1; US9218160-B2; CH705137-B1	2013-01-04
47	BARBAROSSA G; ZHOU Y; PRUNERI V; LUCA JANNER D; JOFRE CRUANYES M; MARTINEZ CORDERO P A; JOFRE C M; MARTINEZ C P A	Method for interrogating optical properties of target specimen probe volumes for e.g. biomedical diagnostics, involves combining probe beams to produce combined optical beam, and detecting interference pattern in combined optical beam	WO2011149662-A2; US2011292401-A1; WO2011149662-A3; EP2577220-A2; US8472031-B2; CN103189711-A; CN103189711-B; EP2577220-A4; EP2577220-B1; ES2798767-T3	2011-01-07
48	CHEN T L; GHOSH D S; PRUNERI V	Transparent electrode for optoelectronic applications, consists of transparent conductive oxide film, ultra thin metal layer and oxide layer provided in order on substrate	WO2011101338-A2; ES2364309-A1; WO2011101338-A3; KR2012138764-A; DE112011100593-T5; US2013040516-A1; ES2364309-B1; JP2013522813-W; KR1680928-B1	2011-01-07

49	CHEN T; GHOSH D; PRUNERI V; CHEN T L; GHOSH D S	Electrode of optoelectronic device e.g. photovoltaic cell, has layered structure with electrically conductive film that is formed to contact with at least one ultra thin metal film	EP2317562-A1; WO2011054814-A1; EP2317562-A8; KR2012098739-A; US2012260983-A1; JP2013510397-W	2011-01-07
50	PRUNERI V; GHOSH D S; GHOSH D	Optically transparent, electrically conductive transparent electrode for optical device such as photovoltaic cell, OLED or photodetector, has metal grid in contact with ultra thin metal conductor to lower electrode sheet resistance	WO2010136393-A2; EP2259329-A1; WO2010136393-A3; US2012103669-A1	2010-01-08
51	MARTINEZ MONTBLANCH L; PRUNERI V; GIURGOLA S; VERGANI P; MARTINEZ MONTBLANCH L I; MARTINEZ M L; MONTBLANCH L M	Method for producing stable ultra thin metal film for optoelectronic application, involves performing thermal treatment and oxygen treatment with respect to ultra thin metal film deposited on substrate to form protective oxide layer	EP2133921-A1; WO2009150169-A1; EP2133921-B1; DE602008005000-E; US2011114226-A1; KR2011046396-A; CN102105989-A; ES2361212-T8; EP2133921-B8; ES2361212-T3; US8623153-B2; CN102105989-B; KR1621571-B1	2009-01-02
52	JOEL VILLATORO A; PRUNERI V; BADENES G; VILLATORO A J	All-optical fiber interferometer i.e. Mach-Zehnder interferometer, for use in interferometric strain sensing device, has splices separated center-to-center between regions along length of optical fiber where modes are excited	EP1939659-A1; ES2332340-A1; US2010265514-A1; US7936461-B2; ES2332340-B1; EP1939659-B1	2008-01-04
53	BELMONTE M; PRUNERI V	Electro-optical device e.g. Mach-Zehnder interferometer for telecom industry, has optical waveguide embedded within substrate and with optical pathways, and bias electrode layer formed on substrate and placed closer to waveguide	US2006198581-A1; US7127128-B2	2006-01-06
54	PRUNERI V; LUCCI F; VERGANI P; LUCCHI F	Manufacture of waveguide, e.g. optical waveguide, by diffusing titanium indiffusion on lithium niobate substrate at low temperature in specified atmosphere, and forming optical waveguide without any domain inversion	EP1607777-A1; US2005281523-A1; US7155102-B2	2006-01-06
55	PRUNERI V; ORIO M	Electro-optical modulator for optical data processing, has zones with lengths that differ from one another and are smaller than coherence length of signal at maximum frequency	EP1503236-A1	2005-01-07
56	MAURO J C; MORASCA S; PRUNERI V; RAGHAVAN S	Unipolar voltage data stream converting method for fiber optic communication system, involves modulating optical wave with encoded nonreturn-to-zero voltage stream to provide carrier-suppressed return-to-zero optical data stream	US2004227649-A1; US6842125-B2	2005-01-07
57	PRUNERI V; BELMONTE M; ORIO M	Electro-optical device capable of modulating amplitude or phase of optical output in response to electrical data or control signal, is attributed with discontinuity in body of electro-optically active material or electrode(s)	EP1403692-A1; US2004061918-A1; US7088874-B2	2004-01-02

58	PRUNERI V; VANNUCCI A	Integrated optical waveguide device e.g. switch and modulator, has substrate region with specified orientation of spontaneous polarization, sandwiched between substrate regions having different orientation	EP1273960-A1; US2003012480-A1	2003-01-03
59	PRUNERI V	Integrated optical waveguide device e.g. electro-optical modulator, has ferroelectric substrate comprising free charges which are compensated by inducing displacement of mobile charges in semiconductor layer	EP1271221-A1; JP2003066393-A; US2003031400-A1; CN1432845-A	2003-01-03
60	PRUNERI V; NESPOLA A	Co-planar integrated electro-optical modulator for optical communication system, has waveguides formed in respective substrate regions having electro-optic co-efficient of opposite sign along specified axis	EP1271220-A1; JP2003066394-A; US2003002766-A1; CN1432846-A; US6760493-B2; EP1271220-B1; DE60139549-E	2003-01-03
61	BRODERICK N G R; MONRO T M; PRUNERI V; RICHARDSON D J; BRODERICK N; RICHARDSON D; MONRO T	Optical parametric device e.g. three-wave mixing device, optical parametric oscillator, has holes provided in cladding to form waveguide structure in core at specific optical mode	EP1205788-A1; US2002126370-A1; US6801356-B2	2002-01-04
62	BRAMBILLA G; PRUNERI V	Fabrication of optical fiber for optical device, involves drawing preform into optical fiber between working temperatures of preform's core and cladding glasses and the above softening temperature of the cladding glass	EP1199286-A1; US2002054741-A1	2002-01-04
63	BRAMBILLA G; PRUNERI V; REEKIE L; BRAMBILLA G U O S; PRUNERI V U O S; REEKIE L U O S	Planar waveguide used in e.g. lasers comprises Group I element in tin-doped silica glass matrix	WO200170640-A1; AU200140908-A; EP1265820-A1; US2003039459-A1; US6643442-B2; EP1265820-B1; DE60108228-E; DE60108228-T2	2001-01-05
64	BONFRATE G; KAZANSKY P G; PRUNERI V; BONFRATE G O O I; KAZANSKY P G O O I; PRUNERI V O O I	Creating a varying several order non linearity profile along a waveguide, making structured surface defining varying distance between structured surface and waveguide core and thermally polling waveguide structure	WO200106313-A1; AU200060071-A; EP1196816-A1	2001-01-05
65	BONFRATE G; KAZANSKY P G; PRUNERI V; BONFRATE G O O I; KAZANSKY P G O O I; PRUNERI V O O I	Optical poling method of waveguide for quasi-phase matching for creating second order non-linear profile along waveguide, by thermal poling, placing mask adjacent to waveguide structure and exposing with UV light through mask	WO200106304-A2; AU200060078-A; US2002114059-A1; US2002150363-A1; EP1252548-A2; US6751386-B2; US6831776-B2; WO200106304-A3	2001-01-05

Articles. From WoS.

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1	Haegele, Sebastian; Rank, Manuel; Terborg, ROLANDA.; Sheinrich, Andrea; Pruneri, Valerio	Comprehensive optical monitoring of photopolymer curing for additive manufacturing of diffractive elements	OPTICS EXPRESS	10.1364/OE.530967	2024
2	Rizzotti, Davide; Signorini, Stefano; Harvey, Clarissa; Fokine, Michael; Pruneri, Valerio	Silicon core fibers: A new platform for quantum light generation	APL PHOTONICS	10.1063/5.0220647	2024
3	Haegele, Sebastian; Martinez-Cercos, Daniel; Chillon, Javier Arres; Paulillo, Bruno; Terborg, Roland A.; Pruneri, Valerio	Multispectral Holographic Intensity and Phase Imaging of Semitransparent Ultrathin Films	ACS PHOTONICS	10.1021/acsphotonics.3c01834	2024
4	Karadzhov, Iliyan; Paulillo, Bruno; Rombaut, Juan; Koch, Karl W.; Mazumder, Prantik; Pruneri, Valerio	Mechanically-Durable Antireflective Subwavelength Nanoholes on Glass Surfaces Using Lithography-Free Fabrication	ACS APPLIED MATERIALS & INTERFACES	10.1021/acsami.3c15391	2024
5	Graham, Christina; Mezzadrelli, Alessia; Senaratne, Wageesha; Pal, Santona; Thelen, Dean; Hepburn, Lisa; Mazumder, Prantik; Pruneri, Valerio	Towards transparent and durable copper-containing antimicrobial surfaces	COMMUNICATIONS MATERIALS	10.1038/s43246-024-00472-w	2024
6	Sheinfux, Hanan Herzig; Orsini, Lorenzo; Jung, Minwoo; Torre, Iacopo; Ceccanti, Matteo; Marconi, Simone; Maniyara, Rinu; Ruiz, David Barcons; Hoetger, Alexander; Bertini, Ricardo; Castilla, Sebastian; Hesp, Niels C. H.; Janzen, Eli; Holleitner, Alexander; Pruneri, Valerio; Edgar, James H.; Shvets, Gennady; Koppens, Frank H. L.	High-quality nanocavities through multimodal confinement of hyperbolic polaritons in hexagonal boron nitride	NATURE MATERIALS	10.1038/s41563-023-01785-w	2024
7	Castelvero, Lorenzo; Lopez Grande, Ignacio H.; Pruneri, Valerio	High-Performance Time-to-Digital Conversion on a 16-nm Ultrascale plus FPGA	IEEE ACCESS	10.1109/ACCESS.2024.3477295	2024
8	Cuevas, A.; Tiemann, D.; Camphausen, R.; Cusini, I; Panzani, A.; Villa, F.; Pruneri, V	Super-sensitive multipass phase imaging	OPTICS, PHOTONICS, AND DIGITAL TECHNOLOGIES FOR IMAGING APPLICATIONS VIII	10.1117/12.3017095	2024
9	Paganini, Giacomo; Cuevas, Alvaro; Camphausen, Robin; Demuth, Alexander; Pruneri, Valerio	Polarization entangled photon-pair source in a dual displacement interferometric	QUANTUM TECHNOLOGIES 2024	10.1117/12.3017509	2024

		configuration			
10	Giardino, Matteo; Mannelli, Ilaria; Yu, Renwen; de Abajo, Javier Garcia; Pruneri, Valerio; Janner, Davide	Synthesis of tailored nanostructured gold surfaces for SERS applications by controlled seed deposition and growth	APPLIED SURFACE SCIENCE	10.1016/j.apsusc.2023.159076	2024
11	Cuevas, Alvaro; Tiemann, Daniel; Camphausen, Robin; Cusini, Iris; Panzani, Antonio; Mukherjee, Rajdeep; Villa, Federica; Pruneri, Valerio	Multipass wide-field phase imager	OPTICS EXPRESS	10.1364/OE.499156	2023
12	Graham, Christina; Marchena, Miriam; Paulillo, Bruno; Bhattacharyya, Indrani; Mazumder, Prantik; Pruneri, Valerio	Highly doped graphene on ion-exchanged glass	2D MATERIALS	10.1088/2053-1583/acdbda	2023
13	Stein, Abigail; Grande, Ignacio H. Lopez; Castelvero, Lorenzo; Pruneri, Valerio	Robust polarization state generation for long-range quantum key distribution	OPTICS EXPRESS	10.1364/OE.481797	2023
14	Sheinfux, Hanan Herzig; Jung, Minwoo; Orsini, Lorenzo; Ceccanti, Matteo; Mahalanabish, Aditya; Martinez-Cercos, Daniel; Torre, Iacopo; Ruiz, David Barcons; Janzen, Eli; Edgar, James H.; Pruneri, Valerio; Shvets, Gennady; Koppens, Frank H. L.	Transverse Hypercrystals Formed by Periodically Modulated Phonon Polaritons	ACS NANO	10.1021/acsnano.2c11497	2023
15	Martinez-Cerccos, Daniel; Paulillo, Bruno; Barrantes, Jessica; Mendoza-Carreno, Jose; Mihi, Agustin; St Clair, Todd; Mazumder, Prantik; Pruneri, Valerio	Tuning of Ultra-Thin Gold Films by Photoreduction	ACS APPLIED MATERIALS & INTERFACES	10.1021/acsami.2c22149	2023
16	Aldama, J.; Sarmiento, S.; Etcheverry, S.; Valivarthi, R.; Grande, I. H. Lopez; Vidarte, L. Trigo; Runeri, V. P.	Small-form-factor Gaussian-modulated coherent-state transmitter for CV-QKD using a gain-switched DFB laser	OPTICS EXPRESS	10.1364/OE.474665	2023
17	Camphausen, Robin; Sansa Perna, Adria; Cuevas, Alvaro; Demuth, Alexander; Chillon, Javier Arres; Graefe, Markus; Steinlechner, Fabian; Pruneri, Valerio	Fast quantum-enhanced imaging with visible-wavelength entangled photons	OPTICS EXPRESS	10.1364/OE.471429	2023
18	Bareza, Nestor, Jr.; Wajs, Ewelina; Paulillo, Bruno; Tullila, Antti; Jaatinen, Hannakaisa; Milani, Roberto; Dore, Camilla; Mihi, Agustin; Nevanen,	Quantitative Mid-Infrared Plasmonic Biosensing on Scalable Graphene Nanostructures	ADVANCED MATERIALS INTERFACES	10.1002/admi.202201699	2023

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19	Arres Chillon, Javier; Paulillo, Bruno; Mazumder, Prantik; Pruneri, Valerio	Transparent Glass Surfaces with Silica Nanopillars for Radiative Cooling	ACS APPLIED NANO MATERIALS	10.1021/acsanm.2c03272	2022
20	Aldama, Jennifer; Sarmiento, Samael; Grande, Ignacio H. Lopez H.; Signorini, Stefano; Vidarte, Luis Trigo; Pruneri, Valerio	Integrated QKD and QRNG Photonic Technologies	JOURNAL OF LIGHTWAVE TECHNOLOGY	10.1109/JLT.2022.3218075	2022
21	Haegele, Sebastian; Corrielli, Giacomo; Hejda, Matej; Duempelmann, Luc; Terborg, Roland A.; Osellame, Roberto; Pruneri, Valerio	Large field-of-view holographic imager with ultra-high phase sensitivity using multi-angle illumination	OPTICS AND LASERS IN ENGINEERING	10.1016/j.optlaseng.2022.107315	2023
22	Demuth, Alexander; Camphausen, Robin; Cuevas, Alvaro; Borrelli, Nick F.; Seward, Thomas P.; Lamberson, Lisa; Koch, Karl W.; Ruggeri, Alessandro; Madonini, Francesca; Villa, Federica; Pruneri, Valerio	Quantum light transport in phase-separated Anderson localization fiber	COMMUNICATIONS PHYSICS	10.1038/s42005-022-01036-5	2022
23	Zamora, Ricardo A.; Lopez-Ortiz, Manuel; Sales-Mateo, Montserrat; Hu, Chen; Croce, Roberta; Abraham Maniyara, Rinu; Pruneri, Valerio; Giannotti, Marina, I; Gorostiza, Pau	Light- and Redox-Dependent Force Spectroscopy Reveals that the Interaction between Plastocyanin and Plant Photosystem I Is Favored when One Partner Is Ready for Electron Transfer	ACS NANO	10.1021/acsnano.2c06454	2022
24	Sarmiento, S.; Etcheverry, S.; Aldama, J.; Lopez, I. H.; Vidarte, L. T.; Xavier, G. B.; Nolan, D. A.; Stone, J. S.; Li, M. J.; Loeber, D.; Pruneri, V	Continuous-variable quantum key distribution over a 15 km multi-core fiber	NEW JOURNAL OF PHYSICS	10.1088/1367-2630/ac753b	2022
25	Taghipour, Nima; Tanriover, Ibrahim; Dalmases, Mariona; Whitworth, Guy L.; Graham, Christina; Saha, Avijit; Ozdemir, Onur; Kundu, Biswajit; Pruneri, Valerio; Aydin, Koray; Konstantatos, Gerasimos	Ultra-Thin Infrared Optical Gain Medium and Optically-Pumped Stimulated Emission in PbS Colloidal Quantum Dot LEDs	ADVANCED FUNCTIONAL MATERIALS	10.1002/adfm.202200832	2022
26	Hussain, Rubaiya; Ongaro, Alfredo E.; Rodriguez de la Concepcion, Maria L.; Wajs, Ewelina; Riveira-Munoz, Eva; Ballana, Ester; Blanco, Julia; Toledo, Ruth; Chamorro, Anna; Massanella, Marta; Mateu, Lourdes; Grau, Eulalia;	Small form factor flow virometer for SARS-CoV-2	BIOMEDICAL OPTICS EXPRESS	10.1364/BOE.450212	2022

	Clotet, Bonaventura; Carrillo, Jorge; Pruneri, Valerio				
27	Bareza, Nestor, Jr.; Paulillo, Bruno; Slipchenko, Tetiana M.; Autore, Marta; Dolado, Irene; Liu, Song; Edgar, James H.; Velez, Saul; Martin-Moreno, Luis; Hillenbrand, Rainer; Pruneri, Valerio	Phonon-Enhanced Mid-Infrared CO2 Gas Sensing Using Boron Nitride Nanoresonators	ACS PHOTONICS	10.1021/acsphotonics.1c01254	2022
28	Camphausen, Robin; Cuevas, Alvaro; Duempelmann, Luc; Terborg, Roland A.; Wajs, Ewelina; Tisa, Simone; Ruggeri, Alessandro; Cusini, Iris; Steinlechner, Fabian; Pruneri, Valerio	A quantum-enhanced wide-field phase imager	SCIENCE ADVANCES	10.1126/sciadv.abj2155	2021
29	Martinez-Cercos, Daniel; Paulillo, Bruno; Maniyara, Rinu Abraham; Rezikyan, Aram; Bhattacharyya, Indrani; Mazumder, Prantik; Pruneri, Valerio	Ultrathin Metals on a Transparent Seed and Application to Infrared Reflectors	ACS APPLIED MATERIALS & INTERFACES	10.1021/acsami.1c10824	2021
30	Paulillo, Bruno; Bareza, Nestor, Jr.; Pruneri, Valerio	Controlling mid-infrared plasmons in graphene nanostructures through post-fabrication chemical doping	JOURNAL OF PHYSICS-PHOTONICS	10.1088/2515-7647/abf943	2021
31	Kaltenbaek, Rainer; Acin, Antonio; Bacsardi, Laszlo; Bianco, Paolo; Bouyer, Philippe; Diamanti, Eleni; Marquardt, Christoph; Omar, Yasser; Pruneri, Valerio; Rasel, Ernst; Sang, Bernhard; Seidel, Stephan; Ulbricht, Hendrik; Ursin, Rupert; Villoresi, Paolo; van den Bossche, Mathias; von Klitzing, Wolf; Zbinden, Hugo; Paternostro, Mauro; Bassi, Angelo	Quantum technologies in space	EXPERIMENTAL ASTRONOMY	10.1007/s10686-021-09731-x	2021
32	Lopez Grande, I. H.; Etcheverry, S.; Aldama, J.; Ghasemi, S.; Nolan, D.; Pruneri, V	Adaptable transmitter for discrete and continuous variable quantum key distribution	OPTICS EXPRESS	10.1364/OE.425382	2021
33	Rombaut, Juan; Martinez, Sofia; Maria Matera, Umberto; Mazumder, Prantik; Pruneri, Valerio	Antireflective Multilayer Surface with Self-Cleaning Subwavelength Structures	ACS PHOTONICS	10.1021/acsphotonics.0c01909	2021
34	Maniyara, Rinu Abraham; Graham, Christina; Paulillo, Bruno; Bi, Yu; Chen, Yu; Herranz, Gervasi; Baker,	Highly transparent and conductive ITO substrates for near infrared applications	APL MATERIALS	10.1063/5.0040864	2021

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35	Lozano-Perez, Antonio Abel; Pagan, Ana; Zhurov, Vladimir; Hudson, Stephen D.; Hutter, Jeffrey L.; Pruneri, Valerio; Perez-Moreno, Ignacio; Grbic', Vojislava; Cenis, Jose Luis; Grbic', Miodrag; Aznar-Cervantes, Salvador	The silk of gorse spider mite Tetranychus lintearius represents a novel natural source of nanoparticles and biomaterials	SCIENTIFIC REPORTS	10.1038/s41598-020-74766-7	2020
36	Sibilo, Rafael; Mannelli, Ilaria; Reigada, Ramon; Manzo, Carlo; Noyan, Mehmet A.; Mazumder, Prantik; Pruneri, Valerio	Direct and Fast Assessment of Antimicrobial Surface Activity Using Molecular Dynamics Simulation and Time-Lapse Imaging	ANALYTICAL CHEMISTRY	10.1021/acs.analchem.0c00367	2020
37	Valivarthi, R.; Etcheverry, S.; Aldama, J.; Zwiehoff, F.; Pruneri, V.	Plug-and-play continuous-variable quantum key distribution for metropolitan networks	OPTICS EXPRESS	10.1364/OE.391491	2020
38	Graham, Christina; Martin Frances, Miriam Marchena; Abraham Maniyara, Rinu; Wen, Yugeng; Mazumder, Prantik; Pruneri, Valerio	NaCl substrates for high temperature processing and transfer of ultrathin materials	SCIENTIFIC REPORTS	10.1038/s41598-020-64313-9	2020
39	Bareza, Nestor, Jr.; Gopalan, Kavitha K.; Alani, Rose; Paulillo, Bruno; Pruneri, Valerio	Mid-infrared Gas Sensing Using Graphene Plasmons Tuned by Reversible Chemical Doping	ACS PHOTONICS	10.1021/acsphotonics.9b01714	2020
40	Hussain, Rubaiya; Alican Noyan, Mehmet; Woyessa, Getinet; Retamal Marin, Rodrigo R; Antonio Martinez, Pedro; Mahdi, Faiz M; Finazzi, Vittoria; Hazlehurst, Thomas A; Hunter, Timothy N; Coll, Tomeu; Stintz, Michael; Muller, Frans; Chalkias, Georgios; Pruneri, Valerio	An ultra-compact particle size analyser using a CMOS image sensor and machine learning.	Light, science & applications	10.1038/s41377-020-0255-6	2020
41	Hussain, Rubaiya; Alican Noyan, Mehmet; Woyessa, Getinet; Marin, Rodrigo R. Retamal; Antonio Martinez, Pedro; Mahdi, Faiz M.; Finazzi, Vittoria; Hazlehurst, Thomas A.; Hunter, Timothy N.; Coll, Tomeu; Stintz, Michael; Muller, Frans; Chalkias, Georgios; Pruneri, Valerio	An ultra-compact particle size analyser using a CMOS image sensor and machine learning	LIGHT-SCIENCE & APPLICATIONS	10.1038/s41377-020-0255-6	2020
42	Hussain, Rubaiya; Alican Noyan, Mehmet; Woyessa, Getinet; Retamal Marin, Rodrigo R; Antonio Martinez, Pedro; Mahdi, Faiz M; Finazzi, Vittoria;	An ultra-compact particle size analyser using a CMOS image sensor and machine learning.	Light, science & applications	10.1038/s41377-020-0255-6	2020

	Hazlehurst, Thomas A; Hunter, Timothy N; Coll, Tomeu; Stintz, Michael; Muller, Frans; Chalkias, Georgios; Pruneri, Valerio				
43	Rombaut, Juan; Fernandez, Manuel; Mazumder, Prantik; Pruneri, Valerio	Nanostructured Hybrid-Material Transparent Surface with Antireflection Properties and a Facile Fabrication Process	ACS OMEGA	10.1021/acsomega.9b02775	2019
44	Picouet, Pierre A.; Gou, Pere; Pruneri, Valerio; Diaz, Isabel; Castellari, Massimo	Implementation of a quality by design approach in the potato chips frying process	JOURNAL OF FOOD ENGINEERING	10.1016/j.jfoodeng.2019.04.013	2019
45	Fabri-Faja, Nuria; Calvo-Lozano, Olalla; Dey, Priyanka; Terborg, Roland A.; Estevez, M-Carmen; Belushkin, Alexander; Yesilkoy, Filiz; Duempelmann, Luc; Altug, Hatice; Pruneri, Valerio; Lechuga, Laura M.	Early sepsis diagnosis via protein and miRNA biomarkers using a novel point-of-care photonic biosensor	ANALYTICA CHIMICA ACTA	10.1016/j.aca.2019.05.038	2019
46	Maniyara, Rinu Abraham; Rodrigo, Daniel; Yu, Renwen; Canet-Ferrer, Josep; Ghosh, Dhriti Sunda R.; Yongsunthon, Ruchirej; Baker, David E.; Rezikyan, Aram; Garcia de Abajo, F. Javier; Pruneri, Valerio	Tunable plasmons in ultrathin metal films	NATURE PHOTONICS	10.1038/s41566-019-0366-x	2019
47	Sibilo, Rafael; Miguel Perez, Juan; Hurth, Cedric; Pruneri, Valerio	Surface cytometer for fluorescent detection and growth monitoring of bacteria over a large field-of-view	BIOMEDICAL OPTICS EXPRESS	10.1364/BOE.10.002101	2019
48	Gopalan, Kavitha K.; Rodrigo, Daniel; Paulillo, Bruno; Soni, Kamal K.; Pruneri, Valerio	Ultrathin Yttria-Stabilized Zirconia as a Flexible and Stable Substrate for Infrared Nano-Optics	ADVANCED OPTICAL MATERIALS	10.1002/adom.201800966	2019
49	Cuevas, Alvaro; Camphausen, Robin; Pruneri, Valerio	Quantum imaging for enhanced microscopy and light modulation	QUANTUM NANOPHOTONIC MATERIALS, DEVICES, AND SYSTEMS 2019	10.1117/12.2531014	2019
50	Dey, Priyanka; Fabri-Faja, Nuria; Calvo-Lozano, Olalla; Terborg, Roland A.; Belushkin, Alexander; Yesilkoy, Filiz; Fabrega, Anna; Carlos Ruiz-Rodriguez, Juan; Ferrer, Ricard; Jose Gonzalez-Lopez, Juan; Carmen Estevez, Maria; Altug, Hatice; Pruneri, Valerio; Lechuga, Laura M.	Label-free Bacteria Quantification in Blood Plasma by a Bioprinted Microarray Based Interferometric Point-of-Care Device	ACS SENSORS	10.1021/acssensors.8B00789	2019

51	Duempelmann, Luc; Terborg, Roland A.; Pello, Josselin; Mannelli, Ilaria; Yesilkoy, Filiz; Belushkin, Alexander A.; Jahani, Yasaman; Fabri-Faja, Nuria; Dey, Priyanka; Calvo-Lozano, Olalla; Estevez, M. -Carmen; Fabrega, Anna; Gonzalez-Lopez, Juan J.; Lechuga, Laura M.; Altug, Hatice; Pruneri, Valerio	Label-free, scalable and point-of-care imaging platform for rapid analysis of biomarker	ADVANCES IN MICROSCOPIC IMAGING II	10.1117/12.2525878	2019
52	Rombaut, Juan; Abraham Maniyara, Rinu; Bellman, Robert A.; Acquard, Daniel F.; Baca, Adra S.; Osmond, Johann; Senaratne, Wageesha; Alejandro Quesada, Mark; Baker, David; Mazumder, Prantik; Pruneri, Valerio	Antireflective Transparent Oleophobic Surfaces by Noninteracting Cavities	ACS APPLIED MATERIALS & INTERFACES	10.1021/acsami.8b15507	2018
53	Rude, Miquel; Abellan, Carlos; Capdevila, Albert; Domenech, David; Mitchell, Morgan W.; Amaya, Waldimar; Pruneri, Valerio	Interferometric photodetection in silicon photonics for phase diffusion quantum entropy sources	OPTICS EXPRESS	10.1364/OE.26.031957	2018
54	Terborg, Roland A.; Torres, Juan P.; Pruneri, Valerio	Technique for generating periodic structured light beams using birefringent elements	OPTICS EXPRESS	10.1364/OE.26.028938	2018
55	Gopalan, Kavitha K.; Paulillo, Bruno; Mackenzie, David M. A.; Rodrigo, Daniel; Bareza, Nestor; Whelan, Patrick R.; Shivayogimath, Abhay; Pruneri, Valerio	Scalable and Tunable Periodic Graphene Nanohole Arrays for Mid-Infrared Plasmonics	NANO LETTERS	10.1021/acs.nanolett.8b02613	2018
56	Abellan, Carlos; Pruneri, Valerio	The Future of Cybersecurity Is Quantum	IEEE SPECTRUM	10.1109/MSPEC.2018.8389185	2018
57	Marchena, Miriam; Wagner, Frederic; Arliguie, Therese; Zhu, Bin; Johnson, Benedict; Fernandez, Manuel; Chen, Tong Lai; Chang, Theresa; Lee, Robert; Pruneri, Valerio; Mazumder, Prantik	Dry transfer of graphene to dielectrics and flexible substrates using polyimide as a transparent and stable intermediate layer	2D MATERIALS	10.1088/2053-1583/aac12d	2018

58	Joshi, Siddarth Koduru; Pienaar, Jacques; Ralph, Timothy C.; Cacciapuoti, Luigi; McCutcheon, Will; Rarity, John; Giggenbach, Dirk; Lim, Jin Gyu; Makarov, Vadim; Fuentes, Ivette; Scheidl, Thomas; Beckert, Erik; Bourennane, Mohamed; Bruschi, David Edward; Cabello, Adam; Capmany, Jose; Carrasco-Casado, Alberto; Diamanti, Eleni; Dusek, Miloslav; Elser, Dominique; Gulinatti, Angelo; Hadfield, Robert H.; Jennewein, Thomas; Kaltenbaek, Rainer; Krainak, Michael A.; Lo, Hoi-Kwong; Marquardt, Christoph; Milburn, Gerard; Peev, Momtchil; Poppe, Andreas; Pruneri, Valerio; Renner, Renato; Salomon, Christophe; Skaar, Johannes; Solomos, Nikolaos; Stipcevic, Mario; Torres, Juan P.; Toyoshima, Morio; Villoresi, Paolo; Walrnsley, Ian; Weihs, Gregor; Weinfurter, Harald; Zeilinger, Anton; Zukowski, Marek; Ursin, Rupert	Space QUEST mission proposal: experimentally testing decoherence due to gravity	NEW JOURNAL OF PHYSICS	10.1088/1367-2630/aac58b	2018
59	Dubey, Richa; Marchena, Miriam; Lahijani, Babak Vosoughi; Kim, Myun-Sik; Pruneri, Valerio; Herzig, Hans Peter	Bloch Surface Waves Using Graphene Layers: An Approach toward In-Plane Photodetectors	APPLIED SCIENCES-BASEL	10.3390/app8030390	2018
60	Yesilkoy, Filiz; Terborg, Roland A.; Pello, Josselin; Belushkin, Alexander A.; Jahani, Yasaman; Pruneri, Valerio; Altug, Hatice	Phase-sensitive plasmonic biosensor using a portable and large field-of-view interferometric microarray imager	LIGHT-SCIENCE & APPLICATIONS	10.1038/lsa.2017.152	2018
61	Rodrigo, Daniel; Tittl, Andreas; Limaj, Odeta; Garcia de Abajo, F. Javier; Pruneri, Valerio; Altug, Hatice	Double-layer graphene for enhanced tunable infrared plasmonics	LIGHT-SCIENCE & APPLICATIONS	10.1038/lsa.2016.277	2017
62	Marchena, Miriam; Song, Zhen; Senaratne, Wageesha; Li, Connie; Liu, Xinyuan; Baker, David; Ferrer, Josep Canet; Mazumder, Prantik; Soni, Kamal; Lee, Robert; Pruneri, Valerio	Direct growth of 2D and 3D graphene nano-structures over large glass substrates by tuning a sacrificial Cu-template layer	2D MATERIALS	10.1088/2053-1583/aa69b5	2017
63	Gopalan, Kavitha K.; Janner, Davide; Nanot, Sebastien; Parret, Romain; Lundeberg, Mark B.; Koppens, Frank H. L.;	Mid-Infrared Pyroresistive Graphene Detector on LiNbO3	ADVANCED OPTICAL MATERIALS	10.1002/adom.201600723	2017

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64	Perez, J. M.; Jofre, M.; Martinez, P.; Yanez, M. A.; Catalan, V.; Parker, A.; Veldhuis, M.; Pruneri, V.	CMOS based image cytometry for detection of phytoplankton in ballast water	BIOMEDICAL OPTICS EXPRESS	10.1364/BOE.8.001240	2017
65	Abraham Maniyara, Rinu; Sundar Ghosh, Dhriti; Pruneri, Valerio	Transparent and conductive backside coating of EUV lithography masks for Ultra Short Pulse laser correction	PHOTOMASK TECHNOLOGY 2017	10.1117/12.2280526	2017
66	Mkhitaryan, Vahagn K.; Ghosh, Dhriti S.; Rude, Miquel; Canet-Ferrer, Josep; Abraham Maniyara, Rinu; Gopalan, Kavitha K.; Pruneri, Valerio	Tunable Complete Optical Absorption in Multilayer Structures Including Ge2Sb2Te5 without Lithographic Patterns	ADVANCED OPTICAL MATERIALS	10.1002/adom.201600452	2017
67	Noyan, Mehmet A.; Guilhot, Denis; Pruneri, Valerio	Functionalized Transparent Surfaces with Enhanced Self-Cleaning against Ink Aerosol Contamination	ADVANCED MATERIALS TECHNOLOGIES	10.1002/admt.201600113	2017
68	Maniyara, Rinu Abraham; Mkhitaryan, Vahagn K.; Chen, Tong Lai; Ghosh, Dhriti Sundar; Pruneri, Valerio	An antireflection transparent conductor with ultralow optical loss (<2 %) and electrical resistance (<6Ωsq-1)	NATURE COMMUNICATIONS	10.1038/ncomms13771	2016
69	Mannelli, Ilaria; Sagues, Francesc; Pruneri, Valerio; Reigada, Ramon	Lipid Vesicle Interaction with Hydrophobic Surfaces: A Coarse-Grained Molecular Dynamics Study	LANGMUIR	10.1021/acs.langmuir.6b03364	2016
70	Abellan, Carlos; Amaya, Waldimar; Domenech, David; Munoz, Pascual; Capmany, Jose; Longhi, Stefano; Mitchell, Morgan W.; Pruneri, Valerio	Quantum entropy source on an InP photonic integrated circuit for random number generation	OPTICA	10.1364/OPTICA.3.000989	2016
71	Yu, Renwen; Pruneri, Valerio; Javier Garcia de Abajo, F.	Active modulation of visible light with graphene-loaded ultrathin metal plasmonic antennas	SCIENTIFIC REPORTS	10.1038/srep32144	2016
72	Marchena, Miriam; Janner, Davide; Lai Chen, Tong; Finazzi, Vittoria; Pruneri, Valerio	Low temperature direct growth of graphene patterns on flexible glass substrates catalysed by a sacrificial ultrathin Ni film	OPTICAL MATERIALS EXPRESS	10.1364/OME.6.002487	2016
73	Miller, T. A.; Rude, M.; Pruneri, V.; Wall, S.	Ultrafast optical response of the amorphous and crystalline states of the phase change material Ge2Sb2Te5	PHYSICAL REVIEW B	10.1103/PhysRevB.94.024301	2016
74	Rude, Miquel; Mkhitaryan, Vahagn; Cetin, Arif Engin; Alan Miller, Timothy; Carrilero, Albert; Wall, Simon; Garcia de Abajo, Francisco Javier; Altug,	Ultrafast and Broadband Tuning of Resonant Optical Nanostructures Using Phase-Change Materials	ADVANCED OPTICAL MATERIALS	10.1002/adom.201600079	2016

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75	Yu, Renwen; Mazumder, Prantik; Bonelli, Nick F.; Carrilero, Albert; Ghosh, Dhriti S.; Maniyara, Rinu A.; Baker, David; Garcia de Abajo, F. Javier; Pruneri, Valerio	Structural Coloring of Glass Using Dewetted Nanoparticles and Ultrathin Films of Metals	ACS PHOTONICS	10.1021/acsphotonics.6b00090	2016
76	Mannelli, Ilaria; Reigada, Ramon; Suarez, Irina; Janner, Davide; Carrilero, Albert; Mazumder, Prantik; Sagues, Francesc; Pruneri, Valerio; Lakadamyali, Melike	Functionalized Surfaces with Tailored Wettability Determine Influenza A Infectivity	ACS APPLIED MATERIALS & INTERFACES	10.1021/acsami.6b02779	2016
77	Terborg, Roland A.; Pello, Josselin; Mannelli, Ilaria; Torres, Juan P.; Pruneri, Valerio	Ultrasensitive interferometric on-chip microscopy of transparent objects	SCIENCE ADVANCES	10.1126/sciadv.1600077	2016
78	Steinlechner, Fabian; Hermosa, Nathaniel; Pruneri, Valerio; Torres, Juan P.	Frequency conversion of structured light	SCIENTIFIC REPORTS	10.1038/srep21390	2016
79	Woessner, Achim; Alonso-Gonzalez, Pablo; Lundeberg, Mark B.; Gao, Yuanda; Barrios-Vargas, Jose E.; Navickaite, Gabriele; Ma, Qiong; Janner, Davide; Watanabe, Kenji; Cummings, Aron W.; Taniguchi, Takashi; Pruneri, Valerio; Roche, Stephan; Jarillo-Herrero, Pablo; Hone, James; Hillenbrand, Rainer; Koppens, Frank H. L.	Near-field photocurrent nanoscopy on bare and encapsulated graphene	NATURE COMMUNICATIONS	10.1038/ncomms10783	2016
80	Abellan, Carlos; Amaya, Waldimar; Mitrani, Daniel; Pruneri, Valerio; Mitchell, Morgan W.	Generation of Fresh and Pure Random Numbers for Loophole-Free Bell Tests	PHYSICAL REVIEW LETTERS	10.1103/PhysRevLett.115.250403	2015
81	Ghosh, Dhriti Sundar; Liu, Quan; Mantilla-Perez, Paola; Chen, Tong Lai; Mkhitaryan, Vahagn; Huang, Minghuang; Garner, Sean; Martorell, Jordi; Pruneri, Valerio	Highly Flexible Transparent Electrodes Containing Ultrathin Silver for Efficient Polymer Solar Cells	ADVANCED FUNCTIONAL MATERIALS	10.1002/adfm.201503739	2015
82	Giustina, Marissa; Versteegh, Marijn A. M.; Wengerowsky, Soeren; Handsteiner, Johannes; Hochrainer, Armin; Phelan, Kevin; Steinlechner, Fabian; Kofler, Johannes; Larsson, Jan-Ake; Abellan, Carlos;	Significant-Loophole-Free Test of Bell's Theorem with Entangled Photons	PHYSICAL REVIEW LETTERS	10.1103/PhysRevLett.115.250401	2015

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83	Shalm, Lynden K.; Meyer-Scott, Evan; Christensen, Bradley G.; Bierhorst, Peter; Wayne, Michael A.; Stevens, Martin J.; Gerrits, Thomas; Glancy, Scott; Hamel, Deny R.; Allman, Michael S.; Coakley, Kevin J.; Dyer, Shellee D.; Hodge, Carson; Lita, Adriana E.; Verma, Varun B.; Lambrocco, Camilla; Tortorici, Edward; Migdall, Alan L.; Zhang, Yanbao; Kumor, Daniel R.; Farr, William H.; Marsili, Francesco; Shaw, Matthew D.; Stern, Jeffrey A.; Abellan, Carlos; Amaya, Waldimar; Pruneri, Valerio; Jennewein, Thomas; Mitchell, Morgan W.; Kwiat, Paul G.; Bienfang, Joshua C.; Mirin, Richard P.; Knill, Emanuel; Nam, Sae Woo	Strong Loophole-Free Test of Local Realism	PHYSICAL REVIEW LETTERS	10.1103/PhysRevLett.115.250402	2015
84	Hensen, B.; Bernien, H.; Dreau, A. E.; Reiserer, A.; Kalb, N.; Blok, M. S.; Ruitenberg, J.; Vermeulen, R. F. L.; Schouten, R. N.; Abellan, C.; Amaya, W.; Pruneri, V.; Mitchell, M. W.; Markham, M.; Twitchen, D. J.; Elkouss, D.; Wehner, S.; Taminiau, T. H.; Hanson, R.	Loophole-free Bell inequality violation using electron spins separated by 1.3 kilometres	NATURE	10.1038/nature15759	2015
85	Waldecker, Lutz; Miller, Timothy A.; Rude, Miquel; Bertoni, Roman; Osmond, Johann; Pruneri, Valerio; Simpson, Robert E.; Ernstorfer, Ralph; Wall, Simon	Time-domain separation of optical properties from structural transitions in resonantly bonded materials	NATURE MATERIALS	10.1038/NMAT4359	2015
86	Salazar-Serrano, L. J.; Barrera, D.; Amaya, W.; Sales, S.; Pruneri, V.; Capmany, J.; Torres, J. P.	Enhancement of the sensitivity of a temperature sensor based on fiber Bragg gratings via weak value amplification	OPTICS LETTERS	10.1364/OL.40.003962	2015
87	Rodrigo, Daniel; Limaj, Odeta; Janner, Davide; Etezadi, Dordaneh; Javier Garcia de Abajo, F.;	Mid-infrared plasmonic biosensing with graphene	SCIENCE	10.1126/science.aab2051	2015

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88	Curty, Marcos; Jofre, Marc; Pruneri, Valerio; Mitchell, Morgan W.	Passive Decoy-State Quantum Key Distribution with Coherent Light	ENTROPY	10.3390/e17064064	2015
89	Rude, Miguel; Simpson, Robert E.; Quidant, Romain; Pruneri, Valerio; Renger, Jan	Active Control of Surface Plasmon Waveguides with a Phase Change Material	ACS PHOTONICS	10.1021/acsphotonics.5b00050	2015
90	Yu, Renwen; Pruneri, Valerio; Javier Garcia de Abajo, F.	Resonant Visible Light Modulation with Graphene	ACS PHOTONICS	10.1021/ph5004829	2015
91	Chen, T. L.; Ghosh, D. S.; Marchena, M.; Osmond, J.; Pruneri, V.	Nanopatterned Graphene on a Polymer Substrate by a Direct Peel-off Technique	ACS APPLIED MATERIALS & INTERFACES	10.1021/acsami.5b00163	2015
92	Formica, Nadia; Mantilla-Perez, Paola; Ghosh, Dhriti S.; Janner, Davide; Lai Chen, Tong; Huang, Minghuang; Garner, Sean; Martorell, Jordi; Pruneri, Valerio	An Indium Tin Oxide-Free Polymer Solar Cell on Flexible Glass.	ACS APPLIED MATERIALS & INTERFACES	10.1021/am5071909	2015
93	Perez, J. M.; Jofre, M.; Martinez, P.; Yanez, M. A.; Catalan, V.; Pruneri, V.	An image cytometer based on angular spatial frequency processing and its validation for rapid detection and quantification of waterborne microorganisms	ANALYST	10.1039/c5an01338k	2015
94	Ghosh, Dhriti Sundar; Chen, Tong Lai; Mkhitaryan, Vahagn; Pruneri, Valerio	Ultrathin Transparent Conductive Polyimide Foil Embedding Silver Nanowires	ACS APPLIED MATERIALS & INTERFACES	10.1021/am505704e	2014
95	Steinlechner, Fabian; Gilaberte, Marta; Jofre, Marc; Scheidl, Thomas; Torres, Juan P.; Pruneri, Valerio; Ursin, Rupert	Efficient heralding of polarization-entangled photons from type-0 and type-II spontaneous parametric downconversion in periodically poled KTiOPO4	JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B-OPTICAL PHYSICS	10.1364/JOSAB.31.002068	2014
96	Mazumder, Prantik; Jiang, Yongdong; Baker, David; Carrilero, Albert; Tulli, Domenico; Infante, Daniel; Hunt, Andrew T.; Pruneri, Valerio	Superomniphobic, Transparent, and Antireflection Surfaces Based on Hierarchical Nanostructures	NANO LETTERS	10.1021/nl501767j	2014
97	Tulli, Domenico; Hart, Shandon D.; Mazumder, Prantik; Carrilero, Albert; Tian, Lili; Koch, Karl W.; Yongsunthon, Ruchirej; Piech, Garrett A.; Pruneri, Valerio	Monolithically Integrated Micro- and Nanostructured Glass Surface with Antiglare, Antireflection, and Superhydrophobic Properties	ACS APPLIED MATERIALS & INTERFACES	10.1021/am5013062	2014
98	Abellan, C.; Amaya, W.; Jofre, M.; Curty, M.; Acin,	Ultra-fast quantum randomness generation by	OPTICS EXPRESS	10.1364/OE.22.001645	2014

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99	Jose Salazar-Serrano, Luis; Janner, Davide; Brunner, Nicolas; Pruneri, Valerio; Torres, Juan P.	Measurement of sub-pulse-width temporal delays via spectral interference induced by weak value amplification	PHYSICAL REVIEW A	10.1103/PhysRevA.89.012126	2014
100	Formica, Nadia; Carrilero, Albert; Chen, Tong Lai; Ghosh, Dhriti S.; Mazumder, Prantik; Pruneri, Valerio	Ultrathin metals and nano-structuring for photonic applications	OPTICAL COMPONENTS AND MATERIALS XI	10.1117/12.2042060	2014
101	Chen, Tong Lai; Ghosh, Dhriti Sundar; Mkhitaryan, Vahagn; Pruneri, Valerio	Hybrid Transparent Conductive Film on Flexible Glass Formed by Hot-Pressing Graphene on a Silver Nanowire Mesh	ACS APPLIED MATERIALS & INTERFACES	10.1021/am403440n	2013
102	Janner, Davide; Tulli, Domenico; Jofre, Marc; Yudistira, Didit; Balsamo, Stefano; Belmonte, Michele; Pruneri, Valerio	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	10.1109/JSTQE.2013.2264800	2013
103	Formica, N.; Ghosh, D. S.; Martinez-Otero, A.; Chen, T. L.; Martorell, Jordi; Pruneri, V.	Ultrathin oxidized Ti to increase stability and smoothness of Al doped ZnO transparent conductors for high efficiency indium-free polymer solar cells	APPLIED PHYSICS LETTERS	10.1063/1.4827877	2013
104	Rude, Miquel; Pello, Josselin; Simpson, Robert E.; Osmond, Johann; Roelkens, Gunther; van der Tol, Jos J. G. M.; Pruneri, Valerio	Optical switching at 1.55 μm in silicon racetrack resonators using phase change materials	APPLIED PHYSICS LETTERS	10.1063/1.4824714	2013
105	Ghosh, D. S.; Formica, N.; Chen, T. L.; Hwang, J.; Eickhoff, C.; Pruneri, V.	Cu-Ag alloy capped with Ni transparent electrodes for indium-free organic photovoltaic and lighting devices	SOLAR ENERGY MATERIALS AND SOLAR CELLS	10.1016/j.solmat.2013.04.012	2013
106	Yudistira, Didit; Boes, Andreas; Janner, Davide; Pruneri, Valerio; Friend, James; Mitchell, Arnan	Polariton-based band gap and generation of surface acoustic waves in acoustic superlattice lithium niobate	JOURNAL OF APPLIED PHYSICS	10.1063/1.4817271	2013
107	Ghosh, D. S.; Chen, T. L.; Mkhitaryan, V.; Formica, N.; Pruneri, V.	Solution processed metallic nanowire based transparent electrode capped with a multifunctional layer	APPLIED PHYSICS LETTERS	10.1063/1.4809670	2013
108	Infante, Daniel; Koch, Karl W.; Mazumder, Prantik; Tian, Lili; Carrilero, Albert; Tulli, Domenico; Baker, David; Pruneri, Valerio	Durable, superhydrophobic, antireflection, and low haze glass surfaces using scalable metal dewetting nanostructuring	NANO RESEARCH	10.1007/s12274-013-0320-z	2013

109	Steinlechner, Fabian; Ramelow, Sven; Jofre, Marc; Gilaberte, Marta; Jennewein, Thomas; Torres, Juan. P.; Mitchell, Morgan W.; Pruneri, Valerio	Phase-stable source of polarization-entangled photons in a linear double-pass configuration	OPTICS EXPRESS	10.1364/OE.21.011943	2013
110	Formica, Nadia; Ghosh, Dhriti S.; Carrilero, Albert; Chen, Tong Lai; Simpson, Robert E.; Pruneri, Valerio	Ultrastable and Atomically Smooth Ultrathin Silver Films Grown on a Copper Seed Layer	ACS APPLIED MATERIALS & INTERFACES	10.1021/am303147w	2013
111	Formica, Nadia; Sundar Ghosh, Dhriti; Lai Chen, Tong; Eickhoff, Christian; Bruder, Ingmar; Pruneri, Valerio	Highly stable Ag-Ni based transparent electrodes on PET substrates for flexible organic solar cells	SOLAR ENERGY MATERIALS AND SOLAR CELLS	10.1016/j.solmat.2012.08.002	2012
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213	Pruneri, V; Butterworth, SD; Hanna, DC	Highly efficient green-light generation by quasi-phase-matched frequency doubling of picosecond pulses from an amplified mode-locked Nd:YLF laser	OPTICS LETTERS	10.1364/OL.21.000390	1996
214	PRUNERI, V; KOCH, R; KAZANSKY, PG; CLARKSON, WA; RUSSELL, PSJ; HANNA, DC	49 MW OF CW BLUE-LIGHT GENERATED BY FIRST-ORDER QUASI-PHASE-MATCHED FREQUENCY-DOUBLING OF A DIODE-PUMPED 946-NM ND-YAG LASER	OPTICS LETTERS	10.1364/OL.20.002375	1995
215	PRUNERI, V; WEBJORN, J; RUSSELL, PS; HANNA, DC	532 NM PUMPED OPTICAL PARAMETRIC OSCILLATOR IN BULK PERIODICALLY POLED LITHIUM-NIOBATE	APPLIED PHYSICS LETTERS	10.1063/1.114741	1995

216	PRUNERI, V; KAZANSKY, PG; WEBJORN, J; RUSSELL, PSJ; HANNA, DC	SELF-ORGANIZED LIGHT-INDUCED SCATTERING IN PERIODICALLY POLED LITHIUM-NIOBATE	APPLIED PHYSICS LETTERS	10.1063/1.114578	1995
217	KAZANSKY, PG; PRUNERI, V; RUSSELL, PS	BLUE-LIGHT GENERATION BY QUASI-PHASE-MATCHED FREQUENCY-DOUBLING IN THERMALLY POLED OPTICAL FIBERS	OPTICS LETTERS	10.1364/OL.20.000843	1995
218	PRUNERI, V; WEBJORN, J; RUSSELL, PSJ; BARR, JRM; HANNA, DC	INTRACAVITY 2ND-HARMONIC GENERATION OF 0.532-MU-M IN BULK PERIODICALLY POLED LITHIUM-NIOBATE	OPTICS COMMUNICATIONS	10.1016/0030-4018(95)00035-7	1995
219	WEBJORN, J; PRUNERI, V; RUSSELL, PSJ; HANNA, DC	55-PERCENT CONVERSION EFFICIENCY TO GREEN IN BULK QUASI-PHASE-MATCHING LITHIUM-NIOBATE	ELECTRONICS LETTERS	10.1049/el:19950442	1995
220	DESILVESTRI, S; NISOLI, M; PRUNERI, V; DESTRI, S; PORZIO, W; TUBINO, R	ULTRAFAST EXCITON DYNAMICS IN A POLYMERIC HETEROSTRUCTURE BASED ON THIENYLENE-PHENYLENE SEQUENCES	CHEMICAL PHYSICS LETTERS	10.1016/0009-2614(95)00060-H	1995
221	NISOLI, M; PRUNERI, V; DESILVESTRI, S; DELLEPIANE, G; COMORETTO, D; CUNIBERTI, C; LEMOIGNE, J	ULTRAFAST EXCITON DYNAMICS IN HIGHLY ORIENTED POLYDIACETYLENE FILMS	APPLIED PHYSICS LETTERS	10.1063/1.112308	1994
222	WEBJORN, J; PRUNERI, V; RUSSELL, PS; BARR, JRM; HANNA, DC	QUASI-PHASE-MATCHED BLUE-LIGHT GENERATION IN BULK LITHIUM-NIOBATE, ELECTRICALLY POLED VIA PERIODIC LIQUID ELECTRODES	ELECTRONICS LETTERS	10.1049/el:19940562	1994
223	NISOLI, M; PRUNERI, V; DESILVESTRI, S; MAGNI, V; GALLAZZI, AM; ROMANONI, C; ZERBI, G; ZOTTI, G	ULTRAFAST NONLINEAR-OPTICAL RESPONSE AND ACOUSTIC-PHONON GENERATION IN POLY(ALKOXY-THIOPHENE) FILM WITH REGIOREGULAR STRUCTURE	CHEMICAL PHYSICS LETTERS	10.1016/0009-2614(94)00143-X	1994

Invited or keynote talks at Conferences

1. Advanced PICs for AI and quantum, V. Pruneri, Photonics Industry Focus, IEEE Photonics Conference, Roma, 10-14 November 2024
2. Quantum imaging with SPAD array cameras, A. Demuth, R. Camphausen, Á. Cuevas, I. Cusini, V. Pruneri, ISSW 2024 - The International SPAD Sensor Workshop, Trento, Italy, June 3-6 2024
3. Shinephi: A phase imaging platform for industrial applications, S. Haegele, R. Hussain, I. Cusini, R. Terborg, V. Pruneri, Optical Digital Holography and Three-Dimensional Imaging Topical Meeting, Paestum, Italy, 3-6 June 2024.
4. Engineered surfaces and devices for the display and imaging industries, V. Pruneri, VII-International School on Light Sciences and Technologies (VII-ISLiST), Santander, Spain, June 2024
5. Quantum-secure networks partnership, V. Pruneri, National Quantum Communication and Information (QCI) Days, Vienna, 25-26 Jan 2024
6. EuroQCI-Spain: General vision and Barcelona QKD node, V. Pruneri, Quantum Communicatin Innovation Forum, Bilbao, 28-29 November 2023
7. Quantum communication in Europe and Spain, V. Pruneri, Conference on Quantum Technologies in Europe, Madrid, 22-23 November 2023
8. Real-time entangled photon-pair imaging towards field deployment, R. Camphausen, A. Cuevas, A. Demuth, I. Cusini, F. Madonini, F. Villa, A. Ruggeri, A. Sansa Perna, M. Gräfe, F. Steinlechner, V. Pruneri, Quantum Technology: Driving Commercialisation of an Enabling Science IV Conference | SPIE Photonex, Glasgow, UK, October 2023
9. Multifunctional optical surfaces with ultrathin materials and nano-structuring, J. A. Chillon, D. Martinez-Cercos, C. Graham, A. Mezzadrelli, I. Karadzhov, W. Senaratne, R. Bellman, D. Thelen, P. Mazumder, V. Pruneri, Metamaterials, Photonic Crystals and Plasmonics Conference | META 2023, Paris, France, July 2023
10. Quantum randomness, cryptography and imaging: from lab to industry, V. Pruneri, Quantum Information in Spain ICE-8, Santiago de Compostela, Spain, May 2023.
11. Multifunctional Optical Surfaces with Ultrathin Materials and Nano-structuring, J. A. Chillon, V. Pruneri, Metamaterials, Photonic Crystals and Plasmonics Conference | META 2023, Paris, July 2023.
12. Quantum crypto in Barcelona, V. Pruneri, CTTC Workshop 2022, Sitges (Barcelona), November 2022
13. QRNG and QKD using classical hardware, V. Pruneri, European Conference on Optical Communication (ECOC), Basel (Switzerland), September 2022
14. Small form factor flow virometer for SARS-CoV-2, V. Pruneri, Optical Sensors and Sensing Congress, Hyatt Regency Vancouver, Vancouver, British Columbia, Canada, July 2022
15. Continuous-variable quantum communications, S. Sarmiento, J. Aldama, S. Ghasemi, S. Etcheverry, V. Pruneri, Front-Edge Workshop, Barcelona, Spain, 2021
16. Lens-free interferometric technologies for point-of-care label-free biomarker detection, R. Camphausen, S. Haegele, J. Arrés, S. Diefenbach, E. Wajs, Á. Cuevas, L. Duempelmann, R. A. Terborg, V. Pruneri, ZEISS Symposium Optics in the Medical World, June 2021
17. Plasmonic mid-IR sensing using graphene and related materials, B. Paulillo, N. Jr. Bareza, K. K. Gopalan, R. Alani, V. Pruneri, Graphene and Beyond: From Atoms to Applications Workshop, May 2021
18. CV-QKD driven by QRNG for deployment of secure communication, S. Etcheverry, S. Ghasemi, V. Pruneri, Next Generation Quantum Networking Workshop 2021, April 2021
19. Plasmonic mid-IR gas sensing using graphene and related materials, B. Paulillo, N. Jr. Bareza, I. Dolado, M. Autore, K. K. Gopalan, R. Alani, R. Hillenbrand, V. Pruneri, SPIE Photonics West, Digital Forum, March 2021
20. Continuous variable quantum key distribution, V. Pruneri, European Quantum Week, Berlin, Germany, 2-6 November 2020
21. Applications and use cases for quantum communications, V. Pruneri, Inside Quantum Technology, Delft, The Netherlands, 29 October 2020
22. Multifunctional nanostructured optical surfaces for industrial applications, J. Rombaut, B. Paulillo, N. Bareza, D. Martínez, R. Maniyara, K. K. Gopalan, P. Mazumder, V. Pruneri, 2019 MRS Fall Meeting, Boston, USA, December 2019
23. Detection of particles, micro-organisms and biomarkers using CMOS image sensors, R. Camphausen, R. Hussain, , R. Terborg, L. Duempelmann. A. Cuevas, E. Wajs, S. Diefenbach, V. Pruneri, Nanobio&med, Barcelona, Spain, November 2019 Key note
24. Large field of view imaging with classical and quantum light, R. Hussain, R. Camphausen, R. Terborg, L. Duempelmann. A. Cuevas, V. Pruneri, EOS European Optical Society: Optical Microsystems OμS19; Anacapri, Island of Capri, Italy, September 2019
25. Generation of periodic structured illumination patterns with compact birefringent elements, R. A. Terborg, J. P. Torres, V. Pruneri, Frontiers in Optics 2019, Washington DC, USA, September 2019

26. Quantum imaging for enhanced microscopy and light modulation, Á. Cuevas, R. Camphausen, V. Pruneri, SPIE Nanoscience + Photonics - Quantum Nanophotonic Materials, Devices, and Systems 2019, San Diego, USA, August 2019
27. Nano-structured optical surfaces based on ultrathin materials for displays and sensing, B. Paulillo, R. Maniyara, J. Rombaut, K. K. Gopalan, N. Bareza, V. Pruneri, META 2019 10th International Conference on Metamaterials, Photonic Crystals and Plasmonics, Instituto Superior Técnico, Lisbon, Portugal, July 2019
28. CiViQ; Bringing continuous-variable QKD technology into emerging optical telecommunication networks, V. Pruneri, EPIC World Industrial Quantum Photonics Technology Barcelona, Spain, June 2019
29. Photonic integration of quantum entropy sources, C. Abellan, W. Amaya, M. Rudé, D. Tulli, M. W. Mitchell, V. Pruneri, European Conference On Integrated Optics, Ghent University, Ghent, Belgium, April 2019
30. Integrated nanophotonic biosensors for point-of care diagnostics and bioanalytical applications, F. Yesilkoy, A. Belushkin, Y. Jahani, R. Terborg, X. Li, V. Pruneri, H. Altug, Optical Fiber Communication Conference, San Diego, United States, March 2019
31. Continuous variable quantum communications, V. Pruneri, Europena Quantum Technology Conference, Grenoble, France, February 2019
32. Large-field-of-view CMOS based sensing of particulates, micro-organisms and biomarkers, V. Pruneri, LANE 2018, 10th CIRP Conference on Photonic Technologies, Fürth, Germany, September 2018Invited Keynote Talk
33. Integrated quantum entropy sources, C. Abellan, W. Amaya, D. Tulli, M. W. Mitchell, V. Pruneri, SPIE Nanoscience + Engineering, San Diego, United States, August 2018
34. Photonic metasurfaces for next-generation biosensors, H. Altug, F. Yesilkoy, X. Li, M. Soler, A. Belushkin, Y. Jahani, R. Terborg, J. Pello, V. Pruneri, OSA Integrated Photonics Research, Silicon and Nanophotonics, Zürich, Switzerland, July 2018
35. Integrated quantum entropy sources, C. Abellan, W. Amaya, D. Tulli, M. W. Mitchell, V. Pruneri, OSA Integrated Photonics Research, Silicon and Nanophotonics, Zürich, Switzerland, July 2018
36. Transparent and conductive backside coating of EUV lithography masks for ultra short pulse laser correction, R. A. Maniyara, D. Sundar Ghosh, V. Pruneri, 34th European Mask and Lithography conference, EMLC 2018, MINATEC conference center, Grenoble, France, June 2018
37. Advanced micro-nano-structured optical surfaces for display and sensing, D. Rodrigo, V. Pruneri, The 3rd Australian New Zealand Conference on Optics (ANZCOP), Queenstown, New Zeland, December 2017
38. Nano-structured optical surfaces incorporating ultrathin materials for industrial applications, V. Pruneri, 9th Mediterranean Conference on Nano-Photonics, Amalfi, Italy, September 2017Plenary talk
39. Graphene for transparent conductors and infrared sensing, K. K. Gopalan, M. Marchena, J. Rombaut, I. Gris, D. Rodrigo, V. Pruneri, CLEO-PR, OECC & PGC, Singapore, July-August, 2017Paper Number: s2474
40. Large-field-of-view cytometer and differential interference contrast microscope using CMOS image sensor arrays, J. M. Pérez, R.A. Terborg, T. Coll, P. Martínez, W. Amaya, C. Hurth, J. Pello, M. Jofre, V. Pruneri, NyNA 2017, Barcelona, Spain, July 2017
41. CMOS-based cytometer and differential interference contrast sensing, R. A. Terborg, J. M. Pérez, T. Coll, P. Martínez, W. Amaya, C. Hurth, J. Pello, M. Jofre, V. Pruneri, Imaging & Applied Optics Congress, San Francisco, California, June 2017
42. Tunable micro- and nano-structured optical devices using phase-change materials, V. Mkhitaryan, M. Rude, V. Pruneri, MRS Spring meeting & Exhibition, Phoenix, Arizona, April 2017
43. Quantum random numbers and optical switching in small structures, V. Pruneri, Photonic Integration Week PIW2017, Valencia, Spain, January 2017
44. Multifunctional nano-structured optical surfaces for industrial applications, M. A. Noyan, K. K. Gopalan, R. A. Maniyara, M. M. Martin-Frances, V. Mkhitaryan, J. Rombaut Segarra, M. Rude, R. Sibilo, I. Mannelli, J. Canet Ferrer, V. Pruneri, Nanometa 2017, Seefeld, Austria, January 2017
45. Transparent electrodes containing ultrathin metal with >98 % optical transmission and <6 Ω/sq. electrical sheet resistance, R. A. Maniyara, V. K. Mkhitaryan, T. L. Chen, D. S. Ghosh, V. Pruneri, EMN Meeting on Transparent Electrodes, Orlando, USA, December 2016
46. Multifunctional optical surfaces for industrial applications using ultrathin materials and nano-structuring, V. Pruneri, Quantum and Topological Nanophotonics, Singapore, December 2016
47. Sensing of particles, micro-organisms and biomarkers using the camera of a mobile phone, M. Jofre, R. A. Terborg, J. M. Pérez, T. Coll, P. Martínez, W. Amaya, J. Pello, V. Pruneri, nanoBioMed2016, Barcelona, Spain, November 2016
48. Graphene for transparent electrodes and sensing applications, V. Pruneri, European Graphene Forum 2016 Conference and Exhibition, Paris, France, June 2016
49. The quest for super-nonwetting, anti-reflection, mechanically durable optical surface, P. Mazumder, W. Senaratne, V. Pruneri, Nanotech2016, Washington DC, USA, from May 22-25, May 2016

50. 2-D materials for transparent electrodes and mid-IR sensing, V. Pruneri, Graphene-based Photonics Technology: Transitioning from Research to Commercialisation, Brussels, Belgium, April 2016
51. Small form factor CMOS based sensors for fast detection of microorganisms and bio markers, V. Pruneri, Point-of-Care Diagnostics, Madrid, Spain, March 2016
52. Integrated devices for reconfigurable networks and quantum technologies, V. Pruneri, MNP 2015: Micro Nano Photonics, Besançon, France, December 2015
53. Small form factor lens free microscopy for detection of particles, micro-organisms and proteins, V. Pruneri, Micro Photonics International Congress Expo, Berlin, Germany, November 2015
54. Graphene directly deposited on dielectrics for transparent electrodes, M. Marchena, T. L. Chen, V. Pruneri, Graphene World Summit 2015, Barcelona, Spain, November 2015
55. Nanostructured transparent electrodes for organic optoelectronic, V. Pruneri, XIV MRS Meeting, Rio de Janeiro, Brasil, September-October 2015
56. Optics on nano-structured surfaces, V. Pruneri, 3rd International Conference and Exhibition on Lasers, Optics & Photonics, September 2015, Valencia, Spain
57. New designs of CMOS based lens-free microscopy for particles and cells analysis, M. Jofre, J. M. Pérez Rosas, R. Terborg del Rosal, J. Pello, P. Martinez, V. Pruneri, 4th European Optical Society Topical Meeting on Blue Photonics® - Optics in the Sea, Barcelona, Spain, May 2015
58. Ultrathin materials and nano-structuring for multifunctional transparent surfaces, D. Janner, M. Marchena, D.S. Ghosh, T.L. Chen, I. Mannelli, M. Rude, V. Mkhitaryan, A. Carrilero and V. Pruneri, 39th International Conference and Expo on Advanced Ceramics and Composites, Daytona, Florida, USA, January-February, 2015
59. Ultrathin metals and graphene for flexible optoelectronic devices, M. Marchena, T. L. Chen, K. Kalavoor, D. Janner, D. S. Gosh, V. Pruneri, Trends in Nanotechnology International Conference (TNT2014), Barcelona, Spain, October 2014
60. Nanostructured transparent electrodes, V. Pruneri, Forum LED Europe, Paris, France, October 2014
61. Ultrathin metals and graphene directly deposited on dielectric substrates and their applications to transparent electrodes, V. Pruneri, International Graphene Innovation Conference (GRAPCHINA 2014), Ningbo, China, September 2014
62. Multifunctional nano-structured optical surfaces, V. Pruneri, International Commission for Optics, Santiago de Compostela, Spain (2014)
63. The next generation CCD or CMOS lens-free microscopy for bio-medical and material processing analysis, M. Jofre, R. Terborg, A. Villar, P. Martínez. J. M. Pérez, D. Janner. I. Manneli. V. Pruneri, OSA Advanced Photonics Congress, Barcelona, Spain, July 2014
64. Integrated devices in ferroelectrics for optical modulations and sensing, D. Janner, V. Pruneri, Third Mediterranean Photonics Conference, Trani, Italy, May 2014
65. Graphene combined with ultrathin metals for low cost and mechanically flexible transparent electrodes, M. Marchena, T. Chen, V. Pruneri, NanoSpain Conference, Madrid, Spain, March 2014
66. Ultrathin metals and nano-structuring for photonic applications, V. Pruneri, SPIE-Photonics West, San Francisco, USA, February 2014
67. Low cost and integrated approaches to biological and environmental optical detection, V. Pruneri, Biosensors for a better environment, Caldes de Montbui, Spain, September 2013
68. Electro-optic engineering for microwave photonics applications, D. Janner, V. Pruneri, PIERS 2013, Stockholm, Sweden, August 2013
69. Entangled photon- and faint laser pulse sources for applications in space, F. Steinlechner, M. Jofre, W. Amaya, M. Mitchell, V. Pruneri, Winter School in Quantum Communications (QSNOW2013), Asiago, Italy, February 2013
70. Photonics devices and applications, V. Pruneri, Trends in Laser Development and Multidisciplinary Applications to Science and Industry, Trieste, Italy, February 2013
71. Micro-nanostructured photonic sensors for harsh environments, V. Finazzi, J. Villatoro, V. Pruneri, Chemistry and advanced photonics, XII Enric Casassas Conference, Barcelona, Spain, December 2012
72. Compact entangled-pair and low-number-of-photon sources for quantum communication in space, M. Jofre, F. Steinlechner, J. P. Torres, M. W. Mitchell, V. Pruneri, Photonics North, Montreal, Canada, June 2012
73. N. Formica, D. S. Ghosh, T. Chen, V. Pruneri, 'Highly stable ultrathin Ag-Ni films for flexible transparent electronics´, invited talk at ECS Integrated Optoelectronics Symposium. 221st ECS Meeting, Seattle, USA, May 2012.
74. J. Villatoro, V. Finazzi, V. Pruneri, 'Functional photonic crystal fiber sensing devices`, invited talk at Asia Communication & Photonics (APC2011), Shangai, China, November 2011.
75. M. Jofre, F. Steinlechner, G. Anzolin, M. Curty, J. P. Torres, M. W. Mitchell, V. Pruneri, 'Compact optical sources for quantum communications´, invited talk at 4th International Symposium on Applied Sciences in Biomedical and Communication Technologies (ISABEL 2011), Barcelona, Spain, October 2011.

76. D. Janner, V. Pruneri, ‘Integrated electro-optic lithium niobate modulators: from low voltage to complex bits´, invited talk at 37th European Conference on Optical Communication-ECOC, Geneva, Switzerland, September 2011.

77. V. Finazzi, J. Villatoro, F. Favero, G. Cardenas, V. Pruneri, ‘Temperature and refractive index sensors based on multimode PCF and embedded optical nanowires’, invited talk at 14th International SAOT Workshop on Fiber Lasers, Sensors and Materials, Reichenschwand, Germany, July 2011.

78. J. Villatoro, V. Finazzi, G. Cardenas, F. Favero, V. Pruneri, ‘Photonic crystal fibre and nanowire sensors’, invited talk at 7th Workshop on Fibre Optics and Passive Components (WFOPC2011), Montreal, Canada, July 2011.

79. D.S. Ghosh, N. Formica, T.L. Chen, V. Pruneri, ‘Metallic nano-films for display, lighting and photovoltaic devices’, invited talk at National Physics Meeting 2011, Foz do Iguaçu, Brasil, June 2011.

80. M. Jofre, A. Gardelein, G. Anzolin, M. W. Mitchell, V. Pruneri , ‘Theory and Realisation of Practical Quantum Key Distribution 2010, Institute for Quantum Computing – University of Waterloo, Canada, June 2010.

81. J. Villatoro, V. Finazzi, G.A. Cardenas-Sevilla, V. Pruneri, ‘Photonic-crystal and optical nicro/nano fiber interferometric sensors’, invited talk 2nd Workshop on Specialty Optical Fibers (WSOF-2010), Oaxaca, October 2010.

82. M. Joffre, A. Gardelein and V. Pruneri, ‘Micro-optical sources for quantum communication in space´, invited paper at ‘European Optical Society Annual Meeting 2010’, Paris (France), 26-29 October 2010.

83. D. Barrera, V. Finazzi, G. Coviello, A. Bueno, S. Sales, V. Pruneri, ‘Chemical composition gratings in germanium doped and boron-germanium’, SPIE Photonics Europe 2010 - Optical Sensing and Detection, Brussels (Belgium), April 2010

84. D.S. Ghosh, T.L. Chen and V. Pruneri, ‘Thermally stable transparent electrodes from ultra thin metal films for solar cell applications’, invited paper at ´ Transparent Conducting Electrodes for Photovoltaics’, Bern (Switzerland), 25 January 2010.

85. V. Finazzi, J. Villatoro, G. Coviello, N. Lou, R. Jha, V. Pruneri, ‘Photonic crystal fibre and nanowire based sensors’, invited paper at ‘International Commission for Optics Topical Meeting on Emerging Trends and Novel Materials in Photonics’, Delphi (Greece), 7-9 October 2009.

86. V. Pruneri et al., ‘Quantum transceiver for secure global communications’, invited paper at QuantumComm 2009, Naples (Italy), 26-30 October 2009.

87. D.S. Ghosh, L. Martinez and V. Pruneri, ‘Nickel electrodes transparent from UV to IR applications’, invited paper at ‘Microtechnologies for the new Millennium 2009’, Dresden, Germany, 4-6 May 2009.

88. V. Pruneri, ‘Integrated quantum transceiver for space applications’, invited paper at Topical Team meeting Space-QUEST (Quantum Entanglement for Space Experiments), Vienna (Austria), 2 Oct 2008.

89. L. Martinez, D.S. Ghosh, S. Giurgola, P. Vergani and V. Pruneri, ‘Ultrathin metal film: an emerging transparent electrode for the optoelectronics industry’, invited paper at ‘4th International Conference on Advanced Optoelectronics and Lasers (CAOL 2008)’, Alushta (Ukraine), 29 Sep-4 Oct 2008.

90. V. Finazzi, J. Villatoro and V. Pruneri, ‘Post-processed micro-structured optical fibre sensors’, invited paper at ‘1st workshop on Speciality Optical Fibres and their Applications (WSOF 2008)’, Sao Pedro (Brazil), 20-22 August 2008.

91. D. Janner, S. Longhi and V. Pruneri, ‘Spatial and spatio-temporal wave localization in periodic media’, invited paper at ‘Progress In Electromagnetics Research Symposium (PIERS 2008)’, Cambridge (USA), 2-6 July 2008.

92. D. Janner, D. Tulli, M. Belmonte and V. Pruneri, ‘Integrated electro-optic modulators in micro-structured LiNbO3’, for tailoring the electro-optic response of waveguide modulators’, invited paper at ’14th European Conference on Integrated Optics’, Eindhoven (The Netherlands), 11-13 June 2008.

93. D. Janner, D. Tulli, M. Belmonte and V. Pruneri, ‘Micro- and nano-engineered integrated electro-optic modulators’, invited paper at ‘Iberoamerican Conference on Optics (RIAO) and Latinamerican meeting on Optics, Lasers and Applications (OPTILAS)’, Campinas-SP (Brazil), 21-26 October 2007.

94. V. Pruneri et al., ‘Poled glass vs ferroelectric crystals for integrated electro-optics and all-optical frequency conversion’, invited paper at IEEE ‘Workshop on Fibres and Optical Fibres Components’, Mondello, Italy, 22-24 June 2005.

95. W. Margulis, N. Myren, J. Fage-Pedersen, M. Kristensen, V. Pruneri, M. Belmonte, P. Kazansky, C. Corbari, A. Canagasabey, O. Deparis, M. Ferraris, B. Poumellec, R. Blum, Q. Liu, S. Zhoa, B. Ortega, D. Pastor, G. Martinelli, A. Kudlinski and Y. Quiquempois, ‘Achievements of the Glamorous project on poling’, invited paper at 'OSA Bragg Gratings, Photosensitivity, Poling in Glass Waveguides and Fibres', Star City, Sydney, Australia, 4-9 July 2005.

96. M. Belmonte, S. Balsamo, S. Pensa, D. Pircalaboiu and V. Pruneri, ‘Advanced optical transmitter’, invited paper 5840-90 at ‘Microtechnologies for the new Millennium 2005’, Seville, Spain, 9-11 May 2005.

97. M. Belmonte and V. Pruneri, ‘Advanced optical transmitter’, invited at International workshop on optical networking, Padova, Italy, 7-8 April 2005.

98. V. Pruneri, ‘Integrated electro-optic components for optical telecommunication’, invited paper, Italian Physical Society meeting, Brescia, Italy, 20-25 September 2004.

99. V. Pruneri et al., ‘Applications and commercial perspectives of poled glass devices’, invited paper at ‘Roman Baths Summer School on Advanced Glass-Based Nano-Photonics’ POWAG 2004, July 2004, Bath (UK).

100. F. Lucchi, M. Belmonte, L. Trevisan, and V. Pruneri, ‘Domain engineered integrated electro-optic modulators’, to be presented at ‘Optical Diagnostic and Monitoring: from Advanced Components to novel Devices’, Capo Miseno, Italy, 21-26 March 2004.
101. V. Pruneri et al., ‘The "Glamorous" European project (GLAss-based MOdulators, ROUters and Switches, invited paper at 'Bragg Gratings, Photosensitivity, Poling in Glass Waveguides and Fibres', Monterey, California, USA, 1-3 Sept 2003.
102. V. Pruneri and M. Belmonte, ‘Poled glass compared to ferroelectrics for electro-optics and nonlinear frequency conversion in optical waveguides’, invited paper, Photonics West, San Jose, USA, 19-25 January 2001.
103. V. Pruneri, ‘Basic research activities in Corning - Optical Technologies Italia’, invited paper, Italian Physical Society meeting, Milan, Italy, 24-29 September 2001.
104. V. Pruneri, ‘Optical parametric processes in periodically poled silica fibres’, invited paper at International worshop on periodic microstructured nonlinear optical materials, Madrid, Spain, 10-13 June 2001.
105. D. Faccio and V. Pruneri, ‘Novel optical waveguide structures for nonlinear applications’, invited paper B7.1 at ‘Photonics 2001’, Ischia, Italy, 23-25 May 2001.
106. G. Brambilla, V. Pruneri, T.P. Newson, and H.H. Kee, ‘Optical fibre sensors for earth sciences: from basic concepts to optimising glass composition for high temperature applications’, invited paper at International workshop on optical methods in earth sciences, Napoli, Italy, 21-24 March 2001.
107. V.Pruneri, G.Bonfrate, P.G.Kazansky, ‘Periodically poled silica fibre: an emerging nonlinear medium for optical frequency conversion’, invited paper SaB6 at 'Bragg Gratings, Photosensitivity, Poling in Glass Waveguides and Fibres', Stuart, Florida, USA, 23-25 Sept 1999.
108. G.Bonfrate, V.Pruneri, P.G.Kazansky, P.R.Tapster, J.G.Rarity, ‘Quasi-phase-matched parametric fluorescence in poled silica fibres’ invited paper FC1 at ‘Nonlinear Guided Waves and Their Applications’, Dijon, France, 1-3 Sept 1999.
109. V.Pruneri, G.Bonfrate, P.G.Kazansky, D.J.Richardson, N.G.R.Broderick, C.Simonneau, P.Vidakovic, J.A.Levenson, ‘>20%-efficient pulsed frequency doubling of 1532nm in periodically poled silica fibres’, invited paper CtuM1 at CLEO `99, Baltimore, USA, 23-28 May 1999.
110. P.G. Kazansky and V. Pruneri, 'Fundamentals of glass poling: from self-organization to electric field poling', invited paper BtuC6 at 'Bragg Gratings, Photosensitivity, Poling in Glass Waveguides and Fibres', Williamsburg, VA,USA, Oct. 25-31, 1997.
111. V. Pruneri, F. Samoggia, G. Bonfrate, H. Takebe, and P.G. Kazansky, ‘Poled glass optical communication devices’, invited paper Tu2C1 at ‘IOOC-ECOC 97', Edimburgh (UK), September 21-25, 1997.
112. V. Pruneri, ‘Quasi-Phase-Matching in ferroelectric crystals and in glass: principle, fabrication and efficient nonlinear optical processes’, invited paper at ‘Nonlinear Optics: Materials and Processes’, Congress on Condensed Matter, Chia-Laguna (Cagliari), Italy, 19-23 May, 1997.
113. S.D. Butterworth, V. Pruneri and D.C. Hanna, 'CW synchronously pumped optical parametric oscillator in periodically poled LiNbO3', invited paper CMF2 at CLEO-EUROPE 96, Hamburg, Germany, September 8-13, 1996.
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