# Emiliano Descrovi

List of Publications by Year
in descending order



| 98 | 3,186 | 101535 | 168376 |
|---|---|---|---|
| papers | citations | 36 h-index | 53 g-index |

| 99 | 99 | 99 | 2625 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Pulse modulation by Bloch surface wave excitation. Optics Letters, 2022, 47, 2574. | 3.3 | 0 |
| 2 | Fluorophore Coupling to Internal Modes of Bragg Gratings. Journal of Physical Chemistry C, 2020, 124, 22743-22752. | 3.1 | 6 |
| 3 | Vortex Beam Generation by Spin-Orbit Interaction with Bloch Surface Waves. ACS Photonics, 2020, 7, 774-783. | 6.6 | 14 |
| 4 | Tunable photo-responsive elastic metamaterials. Nature Communications, 2020, 11, 2576. | 12.8 | 55 |
| 5 | Enhanced Directional Light Emission Assisted by Resonant Bloch Surface Waves in Circular Cavities. ACS Photonics, 2019, 6, 2073-2082. | 6.6 | 30 |
| 6 | Driving Cells with Lightâ€Controlled Topographies. Advanced Science, 2019, 6, 1801826. | 11.2 | 21 |
| 7 | Coupling of Fluorophores in Single Nanoapertures with Tamm Plasmon Structures. Journal of Physical Chemistry C, 2019, 123, 1413-1420. | 3.1 | 15 |
| 8 | Bloch surface wave label-free and fluorescence platform for the detection of VEGF biomarker in biological matrices. Sensors and Actuators B: Chemical, 2018, 255, 2143-2150. | 7.8 | 25 |
| 9 | Enhancement of Spontaneous Emission Decay Rate in Photonic Nano-Cavities Based on Bloch Surface Waves. , 2018, , . | | 0 |
| 10 | Photo-responsive suspended micro-membranes. Journal of Materials Chemistry C, 2018, 6, 10428-10434. | 5.5 | 12 |
| 11 | Reconfigurable elastomeric graded-index optical elements controlled by light. Light: Science and Applications, 2018, 7, 7. | 16.6 | 16 |
| 12 | Bloch surface wave enhanced biosensor for the direct detection of Angiopoietin-2 tumor biomarker in human plasma. Biomedical Optics Express, 2018, 9, 529. | 2.9 | 19 |
| 13 | Optical Waveguideâ€Enhanced Diffraction for Observation of Responsive Hydrogel Nanostructures. Macromolecular Chemistry and Physics, 2017, 218, 1600400. | 2.2 | 9 |
| 14 | Light-driven liquid microlenses. , 2017, , . | | 1 |
| 15 | Laser-induced anisotropic wettability on azopolymeric micro-structures. Applied Physics Letters, 2017, 110, . | 3.3 | 39 |
| 16 | Tunable hydrophobicity assisted by light-responsive surface micro-structures. , 2017, , . | | 1 |
| 17 | Radiative decay engineering 8: Coupled emission microscopy for lens-free high-throughput fluorescence detection. Analytical Biochemistry, 2017, 531, 20-36. | 2.4 | 9 |
| 18 | 3D printable light-responsive polymers. Materials Horizons, 2017, 4, 396-401. | 12.2 | 88 |

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| 19 | Reversible Shaping of Microwells by Polarized Light Irradiation. International Journal of Polymer Science, 2017, 2017, 1-5. | 2.7 | 5 |
| 20 | Surface-relief formation in azo-polyelectrolyte layers with a protective polymer coating. Optical Materials Express, 2016, 6, 444. | 3.0 | 12 |
| 21 | Bloch Surface Wave-Coupled Emission at Ultraviolet Wavelengths. Journal of Physical Chemistry C, 2016, 120, 28727-28734. | 3.1 | 41 |
| 22 | Optical and structural properties of amorphous silicon-nitrides and silicon-oxycarbides: Application of multilayer structures for the coupling of Bloch Surface Waves. Journal of Non-Crystalline Solids, 2016, 453, 113-117. | 3.1 | 11 |
| 23 | Light-Driven Reversible Shaping of Individual Azopolymeric Micro-Pillars. Scientific Reports, 2016, 6, 31702. | 3.3 | 60 |
| 24 | Smart detection of microRNAs through fluorescence enhancement on a photonic crystal. Talanta, 2016, 150, 699-704. | 5.5 | 13 |
| 25 | Hydrogel-Terminated Photonic Crystal for Label-Free Detection of Angiopoietin-1. Journal of Lightwave Technology, 2016, 34, 3641-3645. | 4.6 | 16 |
| 26 | Nanophotonic Structures for Biosensing. , 2016, , 2607-2613. | | 0 |
| 27 | Light-Driven Reversible Shaping of 2D Polymeric Lattices. , 2016, , . | | 0 |
| 28 | Focusing and Extraction of Light mediated by Bloch Surface Waves. Scientific Reports, 2015, 4, 5428. | 3.3 | 52 |
| 29 | Metalâ€“elastomer nanostructures for tunable SERS and easy microfluidic integration. RSC Advances, 2015, 5, 4404-4410. | 3.6 | 40 |
| 30 | Metalâ€“Dielectric Waveguides for High-Efficiency Coupled Emission. ACS Photonics, 2015, 2, 810-815. | 6.6 | 33 |
| 31 | Fluorescence Spectroscopy with Metalâ€“Dielectric Waveguides. Journal of Physical Chemistry C, 2015, 119, 16245-16255. | 3.1 | 18 |
| 32 | Optofluidic chip for surface wave-based fluorescence sensing. Sensors and Actuators B: Chemical, 2015, 215, 225-230. | 7.8 | 13 |
| 33 | Enhanced fluorescence detection of miRNA-16 on a photonic crystal. Analyst, The, 2015, 140, 5459-5463. | 3.5 | 31 |
| 34 | New Sensing Strategies Based on Surface Modes in Photonic Crystals. , 2015, , 321-337. | | 1 |
| 35 | Nanophotonic Structures for Biosensing. , 2015, , 1-8. | | 0 |
| 36 | Exploiting the phase properties of Bloch surface waves on photonic crystals for efficient optical sensing. Proceedings of SPIE, 2014, , . | 0.8 | 1 |

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| 37 | In-plane 2D focusing of surface waves by ultrathin refractive structures. Optics Letters, 2014, 39, 6391. | 3.3 | 25 |
| 38 | One-dimensional photonic crystals with cylindrical geometry. Optics Express, 2014, 22, 27236. | 3.4 | 12 |
| 39 | Real-time protein aggregation monitoring with a Bloch surface wave-based approach. Proceedings of SPIE, 2014, , . | 0.8 | 3 |
| 40 | Bloch Surface Waves on Dielectric Photonic Crystals for Biological Sensing. Lecture Notes in Electrical Engineering, 2014, , 107-111. | 0.4 | 0 |
| 41 | Radiative decay engineering 7: Tamm state-coupled emission using a hybrid plasmonicâ€“photonic structure. Analytical Biochemistry, 2014, 445, 1-13. | 2.4 | 58 |
| 42 | Fluorescence imaging assisted by surface modes on dielectric multilayers. European Physical Journal D, 2014, 68, 1. | 1.3 | 6 |
| 43 | Surface-Wave-Assisted Beaming of Light Radiation from Localized Sources. ACS Photonics, 2014, 1, 612-617. | 6.6 | 14 |
| 44 | Reflection-mode TERS on Insulin Amyloid Fibrils with Top-Visual AFM Probes. Plasmonics, 2013, 8, 25-33. | 3.4 | 30 |
| 45 | Silver Nanoparticles on Porous Silicon: Approaching Single Molecule Detection in Resonant SERS Regime. Journal of Physical Chemistry C, 2013, 117, 20139-20145. | 3.1 | 63 |
| 46 | Bloch surface wave-enhanced fluorescence biosensor. Biosensors and Bioelectronics, 2013, 43, 108-114. | 10.1 | 77 |
| 47 | Radiative decay engineering 6: Fluorescence on one-dimensional photonic crystals. Analytical Biochemistry, 2013, 442, 83-96. | 2.4 | 71 |
| 48 | Broadband wide-angle dispersion measurements: Instrumental setup, alignment, and pitfalls. Review of Scientific Instruments, 2013, 84, 033107. | 1.3 | 5 |
| 49 | A full ellipsometric approach to optical sensing with Bloch surface waves on photonic crystals. Optics Express, 2013, 21, 23331. | 3.4 | 79 |
| 50 | Probing losses of dielectric multilayers by means of Bloch surface waves. Optics Letters, 2013, 38, 616. | 3.3 | 37 |
| 51 | Leakage radiation interference microscopy. Optics Letters, 2013, 38, 3374. | 3.3 | 32 |
| 52 | Fluorescence diffraction assisted by Bloch surface waves on a one-dimensional photonic crystal. New Journal of Physics, 2013, 15, 073002. | 2.9 | 41 |
| 53 | A Fluorescent One-Dimensional Photonic Crystal for Label-Free Biosensing Based on Bloch Surface Waves. Sensors, 2013, 13, 2011-2022. | 3.8 | 56 |
| 54 | Realâ€time Amyloid Aggregation Monitoring with a Photonic Crystalâ€based Approach. ChemPhysChem, 2013, 14, 3476-3482. | 2.1 | 23 |

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| 55 | Improving the sensitivity of optical biosensors by means of Bloch surface waves. Biomedizinische Technik, 2012, 57, . | 0.8 | 17 |
| 56 | Hydrogenated amorphous silicon nitride photonic crystals for improved-performance surface electromagnetic wave biosensors. Biomedical Optics Express, 2012, 3, 2405. | 2.9 | 22 |
| 57 | A polymer-based functional pattern on one-dimensional photonic crystals for photon sorting of fluorescence radiation. Optics Express, 2012, 20, 6703. | 3.4 | 29 |
| 58 | Surface label-free sensing by means of a fluorescent multilayered photonic structure. Applied Physics Letters, 2012, 101, 131105. | 3.3 | 19 |
| 59 | Controlled fluorescence emission via surface modes on dielectric and metallo-dielectric multistack. , 2012, , . | | 0 |
| 60 | Direct comparison of the performance of Bloch surface wave and surface plasmon polariton sensors. Sensors and Actuators B: Chemical, 2012, 174, 292-298. | 7.8 | 218 |
| 61 | Bloch surface waves-controlled fluorescence emission: Coupling into nanometer-sized polymeric waveguides. Applied Physics Letters, 2012, 100, 063305. | 3.3 | 41 |
| 62 | SERS active Ag nanoparticles in mesoporous silicon: detection of organic molecules and peptideâ€“antibody assays. Journal of Raman Spectroscopy, 2012, 43, 730-736. | 2.5 | 70 |
| 63 | Real time secondary antibody detection by means of silicon-based multilayers sustaining Bloch surface waves. Sensors and Actuators B: Chemical, 2012, 161, 1046-1052. | 7.8 | 54 |
| 64 | Realtime antibody-antibody detection by means of Bloch surface waves on silicon-based multilayers. , 2011, , . | | 0 |
| 65 | Temperature stability of Bloch surface wave biosensors. Applied Physics Letters, 2011, 99, 231107. | 3.3 | 14 |
| 66 | Synthesis of amorphous silicon/magnesia based direct opals with tunable optical properties. Optical Materials, 2011, 33, 563-569. | 3.6 | 8 |
| 67 | Biomimetic Tailoring of the Surface Properties of Polymers at the Nanoscale: Medical Applications. Nanoscience and Technology, 2011, , 645-689. | 1.5 | 2 |
| 68 | Bloch surface waves-controlled emission of organic dyes grafted on a one-dimensional photonic crystal. Applied Physics Letters, 2011, 99, . | 3.3 | 75 |
| 69 | Guided Bloch Surface Waves on Ultrathin Polymeric Ridges. Nano Letters, 2010, 10, 2087-2091. | 9.1 | 151 |
| 70 | Two-dimensional optics on silicon nitride multilayer: Refraction of Bloch surface waves. Applied Physics Letters, 2010, 96, . | 3.3 | 44 |
| 71 | Metalâ€dielectric nanostructures for amplified Raman and fluorescence spectroscopy. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 1196-1199. | 0.8 | 10 |
| 72 | Ultrathin waveguides for Bloch surface waves: Near-field analysis of propagation and polarization. , 2010, , . | | 1 |

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| 73 | Experimental determination of the sensitivity of Bloch Surface Waves based sensors. Optics Express, 2010, 18, 8087. | 3.4 | 96 |
| 74 | Bloch surface waves in ultrathin waveguides: near-field investigation of mode polarization and propagation. Journal of the Optical Society of America B: Optical Physics, 2010, 27, 1617. | 2.1 | 61 |
| 75 | Fast optical vapour sensing by Bloch surface waves on porous siliconmembranes. Physical Chemistry Chemical Physics, 2010, 12, 502-506. | 2.8 | 52 |
| 76 | Fluorescence emission enhanced by surface electromagnetic waves on one-dimensional photonic crystals. Applied Physics Letters, 2009, 94, . | 3.3 | 54 |
| 77 | SERSâ€active substrates based on silvered porous silicon. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 1736-1739. | 0.8 | 21 |
| 78 | Doubly resonant porous silicon microcavities for enhanced detection of fluorescent organic molecules. Sensors and Actuators B: Chemical, 2009, 137, 467-470. | 7.8 | 39 |
| 79 | Thickness dependence of surface plasmon polariton dispersion in transparent conducting oxide films at 155 Î¼m. Optics Letters, 2009, 34, 839. | 3.3 | 117 |
| 80 | Narrowband optical interactions in a plasmonic nanoparticle chain coupled to a metallic film. Optics Letters, 2009, 34, 1405. | 3.3 | 39 |
| 81 | Resonant diffraction of symmetric and antisymmetric Bloch surface waves on a corrugated periodic multilayer slab. Optics Letters, 2009, 34, 1973. | 3.3 | 5 |
| 82 | Visualization of surface electromagnetic waves in one-dimensional photonic crystal by fluorescence dye. Proceedings of SPIE, 2009, , . | 0.8 | 1 |
| 83 | High Resolution Capabilities of All-Silica Cantilevered Probes for Near-Field Optical Microscopy. Journal of Nanoscience and Nanotechnology, 2009, 9, 6460-6464. | 0.9 | 4 |
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| 85 | Vapor-phase self-assembled monolayers of aminosilane on plasma-activated silicon substrates. Journal of Colloid and Interface Science, 2008, 321, 235-241. | 9.4 | 126 |
| 86 | Porous silicon as efficient surface enhanced Raman scattering (SERS) substrate. Applied Surface Science, 2008, 254, 7494-7497. | 6.1 | 78 |
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| 88 | Near-field imaging of Bloch surface waves on silicon nitride one-dimensional photonic crystals. Optics Express, 2008, 16, 5453. | 3.4 | 68 |
| 89 | Near-field analysis of surface electromagnetic waves in the bandgap region of a polymeric grating written on a one-dimensional photonic crystal. Applied Physics Letters, 2008, 93, . | 3.3 | 24 |
| 90 | Optical response with threefold symmetry axis on oriented microdomains of opal photonic crystals. Physical Review B, 2008, 78, . | 3.2 | 28 |

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| 91 | Field localization and enhanced Second-Harmonic Generation in silicon-based microcavities. Optics Express, 2007, 15, 4159. | 3.4 | 12 |
| 92 | Coupling of surface waves in highly defined one-dimensional porous silicon photonic crystals for gas sensing applications. Applied Physics Letters, 2007, 91, . | 3.3 | 66 |
| 93 | Selective coupling of and modes into microfabricated fully metal-coated quartz probes. Ultramicroscopy, 2007, 107, 158-165. | 1.9 | 16 |
| 94 | On the coupling and transmission of transverse and longitudinal fields into fully metal-coated optical nano-probes. Proceedings of SPIE, 2005, , . | 0.8 | 2 |
| 95 | Optical properties of microfabricated fully-metal-coated near-field probes in collection mode. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2005, 22, 1432. | 1.5 | 37 |
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| 97 | Analysis of Polarization-Dependent Near-Field Optical Effects in Microfabricated Apertureless SNOM Probes. , 2005, , . | | 0 |
| 98 | Collection of transverse and longitudinal fields by means of apertureless nanoprobes with different metal coating characteristics. Applied Physics Letters, 2004, 85, 5340-5342. | 3.3 | 20 |