Remo Proietti Zaccaria

List of Publications by Year
in descending order

131	6,335	87723	69108
papers	citations	38 h-index	77 g-index

131	131	131	10101
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Review on recent progress of nanostructured anode materials for Li-ion batteries. Journal of Power Sources, 2014, 257, 421-443.	4.0	1,794
2	A Comprehensive Understanding of Lithiumâ€“Sulfur Battery Technology. Advanced Functional Materials, 2019, 29, 1901730.	7.8	267
3	3D Nanostar Dimers with a Subâ€10â€nm Gap for Singleâ€Fewâ€Molecule Surfaceâ€Enhanced Raman Scattering. Advanced Materials, 2014, 26, 2353-2358.	11.1	263
4	Hot-electron nanoscopy using adiabatic compression of surface plasmons. Nature Nanotechnology, 2013, 8, 845-852.	15.6	239
5	Deep Ultraviolet Plasmon Resonance in Aluminum Nanoparticle Arrays. ACS Nano, 2013, 7, 5834-5841.	7.3	170
6	3D Hollow Nanostructures as Building Blocks for Multifunctional Plasmonics. Nano Letters, 2013, 13, 3553-3558.	4.5	149
7	Molding of Plasmonic Resonances in Metallic Nanostructures: Dependence of the Non-Linear Electric Permittivity on System Size and Temperature. Materials, 2013, 6, 4879-4910.	1.3	123
8	Nanoporous Metals: From Plasmonic Properties to Applications in Enhanced Spectroscopy and Photocatalysis. ACS Nano, 2021, 15, 6038-6060.	7.3	120
9	Next-generation textiles: from embedded supercapacitors to lithium ion batteries. Journal of Materials Chemistry A, 2016, 4, 16771-16800.	5.2	111
10	High-performance and site-directed in utero electroporation by a triple-electrode probe. Nature Communications, 2012, 3, 960.	5.8	110
11	Bimetallic 3D Nanostar Dimers in Ring Cavities: Recyclable and Robust Surface-Enhanced Raman Scattering Substrates for Signal Detection from Few Molecules. ACS Nano, 2014, 8, 7986-7994.	7.3	101
12	Spatially, Temporally, and Quantitatively Controlled Delivery of Broad Range of Molecules into Selected Cells through Plasmonic Nanotubes. Advanced Materials, 2015, 27, 7145-7149.	11.1	93
13	Squeezing Terahertz Light into Nanovolumes: Nanoantenna Enhanced Terahertz Spectroscopy (NETS) of Semiconductor Quantum Dots. Nano Letters, 2015, 15, 386-391.	4.5	86
14	Shape precompensation in two-photon laser nanowriting of photonic lattices. Applied Physics Letters, 2004, 85, 3708-3710.	1.5	85
15	Fano Coil-Type Resonance for Magnetic Hot-Spot Generation. Nano Letters, 2014, 14, 3166-3171.	4.5	85
16	Fabrication of large-area ordered and reproducible nanostructures for SERS biosensor application. Analyst, The, 2012, 137, 1785.	1.7	82
17	Direct Imaging of DNA Fibers: The Visage of Double Helix. Nano Letters, 2012, 12, 6453-6458.	4.5	73
18	Novel Plasmonic Nanocavities for Optical Trappingâ€Assisted Biosensing Applications. Advanced Optical Materials, 2020, 8, 1901481.	3.6	70

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19	Plasmon based biosensor for distinguishing different peptides mutation states. Scientific Reports, 2013, 3, 1792.	1.6	68
20	Direct Synthesis of Carbon-Doped TiO‹sub›2‹/sub›â€“Bronze Nanowires as Anode Materials for High Performance Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2015, 7, 25139-25146.	4.0	65
21	Dark to Bright Mode Conversion on Dipolar Nanoantennas: A Symmetry-Breaking Approach. ACS Photonics, 2014, 1, 310-314.	3.2	64
22	Optical polarizer made of uniaxially aligned short single-wall carbon nanotubes embedded in a polymer film. Physical Review B, 2008, 77, .	1.1	62
23	Extremely large extinction efficiency and field enhancement in terahertz resonant dipole nanoantennas. Optics Express, 2011, 19, 26088.	1.7	60
24	Detection of single amino acid mutation in human breast cancer by disordered plasmonic self-similar chain. Science Advances, 2015, 1, e1500487.	4.7	58
25	Pushing the High-Energy Limit of Plasmonics. ACS Nano, 2014, 8, 9239-9247.	7.3	57
26	Nitrogen-Doped Single-Walled Carbon Nanohorns as a Cost-Effective Carbon Host toward High-Performance Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2018, 10, 5551-5559.	4.0	57
27	3D vertical nanostructures for enhanced infrared plasmonics. Scientific Reports, 2015, 5, 16436.	1.6	53
28	High Temperature Nanoplasmonics: The Key Role of Nonlinear Effects. ACS Photonics, 2015, 2, 115-120.	3.2	53
29	Tunable Fano resonance in photonic crystal slabs. Optics Express, 2006, 14, 8812.	1.7	52
30	Surface plasmon polariton compression through radially and linearly polarized source. Optics Letters, 2012, 37, 545.	1.7	51
31	Plasmon resonance tuning in metal nanostars for surface enhanced Raman scattering. Nanotechnology, 2014, 25, 235303.	1.3	49
32	Selective on site separation and detection of molecules in diluted solutions with super-hydrophobic clusters of plasmonic nanoparticles. Nanoscale, 2014, 6, 8208-8225.	2.8	48
33	Transient optical symmetry breaking for ultrafast broadband dichroism in plasmonic metasurfaces. Nature Photonics, 2020, 14, 723-727.	15.6	48
34	Controlling Light, Heat, and Vibrations in Plasmonics and Phononics. Advanced Optical Materials, 2020, 8, 2001225.	3.6	46
35	Gold nanoparticles functionalized by rhodamine B isothiocyanate: A new tool to control plasmonic effects. Journal of Colloid and Interface Science, 2018, 513, 10-19.	5.0	43
36	Multi-scheme approach for efficient surface plasmon polariton generation in metallic conical tips on AFM-based cantilevers. Optics Express, 2011, 19, 22268.	1.7	42

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37	Dynamics of Strong Coupling between Jâ€Aggregates and Surface Plasmon Polaritons in Subwavelength Hole Arrays. Advanced Functional Materials, 2016, 26, 6198-6205.	7.8	40
38	The role of Rabi splitting tuning in the dynamics of strongly coupled J-aggregates and surface plasmon polaritons in nanohole arrays. Nanoscale, 2016, 8, 13445-13453.	2.8	40
39	Hybridization in Three Dimensions: A Novel Route toward Plasmonic Metamolecules. Nano Letters, 2015, 15, 5200-5207.	4.5	39
40	Fully analytical description of adiabatic compression in dissipative polaritonic structures. Physical Review B, 2012, 86, .	1.1	38
41	Broadband absorption enhancement in plasmonic nanoshells-based ultrathin microcrystalline-Si solar cells. Scientific Reports, 2016, 6, 24539.	1.6	38
42	Tuning the Composition of Alloy Nanoparticles Through Laser Mixing: The Role of Surface Plasmon Resonance. Journal of Physical Chemistry C, 2016, 120, 12810-12818.	1.5	37
43	Terahertz Dipole Nanoantenna Arrays: Resonance Characteristics. Plasmonics, 2013, 8, 133-138.	1.8	35
44	Plasmonic Color-Graded Nanosystems with Achromatic Subwavelength Architectures for Light Filtering and Advanced SERS Detection. ACS Applied Materials & Interfaces, 2016, 8, 8024-8031.	4.0	35
45	Dynamics of Strong Coupling between CdSe Quantum Dots and Surface Plasmon Polaritons in Subwavelength Hole Array. Journal of Physical Chemistry Letters, 2016, 7, 4648-4654.	2.1	34
46	Quasi-BIC laser enabled by high-contrast grating resonator for gas detection. Nanophotonics, 2022, 11, 297-304.	2.9	33
47	Plasmonic Moon: A Fano-Like Approach for Squeezing the Magnetic Field in the Infrared. Nano Letters, 2015, 15, 6128-6134.	4.5	32
48	Hotâ€Spot Engineering in 3D Multiâ€Branched Nanostructures: Ultrasensitive Substrates for Surfaceâ€Enhanced Raman Spectroscopy. Advanced Optical Materials, 2017, 5, 1600836.	3.6	32
49	Manipulating full photonic band gaps in two dimensional birefringent photonic crystals. Optics Express, 2008, 16, 14812.	1.7	30
50	Surface enhanced Raman scattering substrate based on gold-coated anodic porous alumina template. Microelectronic Engineering, 2012, 97, 383-386.	1.1	30
51	Reflection-mode TERS on Insulin Amyloid Fibrils with Top-Visual AFM Probes. Plasmonics, 2013, 8, 25-33.	1.8	30
52	Validity of the V parameter for photonic quasi-crystal fibers. Optics Letters, 2010, 35, 1064.	1.7	28
53	Controlling the Heat Dissipation in Temperature-Matched Plasmonic Nanostructures. Nano Letters, 2017, 17, 5472-5480.	4.5	27
54	Metallic Nanoporous Aluminumâ€“Magnesium Alloy for UV-Enhanced Spectroscopy. Journal of Physical Chemistry C, 2019, 123, 20287-20296.	1.5	27

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55	The phototransduction machinery in the rod outer segment has a strong efficacy gradient. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E2715-24.	3.3	25
56	Hybridâ€State Dynamics of Dye Molecules and Surface Plasmon Polaritons under Ultrastrong Coupling Regime. Laser and Photonics Reviews, 2018, 12, 1700176.	4.4	25
57	Photonic quasicrystals exhibit zero-transmission regions due to translational arrangement of constituent parts. Physical Review B, 2009, 79, .	1.1	24
58	Perovskite Nanopillar Array Based Tandem Solar Cell. ACS Photonics, 2017, 4, 2025-2035.	3.2	24
59	Plasmon Controlled Shaping of Metal Nanoparticle Aggregates by Femtosecond Laser-Induced Melting. Journal of Physical Chemistry Letters, 2018, 9, 5002-5008.	2.1	20
60	Galvanic Replacement Reaction as a Route to Prepare Nanoporous Aluminum for UV Plasmonics. Nanomaterials, 2020, 10, 102.	1.9	20
61	Optimization and characterization of Au cuboid nanostructures as a SERS device for sensing applications. Microelectronic Engineering, 2012, 97, 189-192.	1.1	19
62	Plasmonic nanostars for SERS application. Microelectronic Engineering, 2013, 111, 247-250.	1.1	19
63	Interplay between electric and magnetic effect in adiabatic polaritonic systems. Optics Express, 2013, 21, 7538.	1.7	19
64	Fabrication of Gold-Coated Ultra-Thin Anodic Porous Alumina Substrates for Augmented SERS. Materials, 2016, 9, 403.	1.3	19
65	Facile synthesis of Geâ€“MWCNT nanocomposite electrodes for high capacity lithium ion batteries. Journal of Materials Chemistry A, 2017, 5, 19721-19728.	5.2	19
66	Interband Transitions Are More Efficient Than Plasmonic Excitation in the Ultrafast Melting of Electromagnetically Coupled Au Nanoparticles. Journal of Physical Chemistry C, 2019, 123, 16943-16950.	1.5	19
67	All-Optically Reconfigurable Plasmonic Metagrating for Ultrafast Diffraction Management. Nano Letters, 2021, 21, 1345-1351.	4.5	19
68	Nanoplasmonic structures for biophotonic applications: SERS overview. Annalen Der Physik, 2012, 524, 620-636.	0.9	18
69	Insight on the Failure Mechanism of Sn Electrodes for Sodium-Ion Batteries: Evidence of Pore Formation during Sodiation and Crack Formation during Desodiation. ACS Applied Energy Materials, 2019, 2, 860-866.	2.5	18
70	Plasmomechanical Systems: Principles and Applications. Advanced Functional Materials, 2021, 31, 2103706.	7.8	18
71	Dynamics of Strongly Coupled Hybrid States by Transient Absorption Spectroscopy. Advanced Functional Materials, 2018, 28, 1801761.	7.8	17
72	Nitrogen-doped single walled carbon nanohorns enabling effective utilization of Ge nanocrystals for next generation lithium ion batteries. Electrochimica Acta, 2019, 298, 89-96.	2.6	17

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73	Optical phonon modes in ordered core-shell CdSe/CdS nanorod arrays. Physical Review B, 2012, 85, .	1.1	16
74	Sustainable lithium-ion batteries based on metal-free tannery waste biochar. Green Chemistry, 2022, 24, 4119-4129.	4.6	16
75	Fabrication and characterization of a nanoantenna-based Raman device for ultrasensitive spectroscopic applications. Microelectronic Engineering, 2012, 98, 424-427.	1.1	15
76	Direct determination of the resonance properties of metallic conical nanoantennas. Optics Letters, 2014, 39, 571.	1.7	15
77	Surface and interface engineering of anatase TiO2 anode for sodium-ion batteries through Al2O3 surface modification and wise electrolyte selection. Journal of Power Sources, 2018, 384, 18-26.	4.0	15
78	Single-mode operation regime for 12-fold index-guiding quasicrystal optical fibers. Applied Physics B: Lasers and Optics, 2010, 100, 499-503.	1.1	14
79	Light-trapping in photon enhanced thermionic emitters. Optics Express, 2015, 23, A1220.	1.7	14
80	Butterfly wing color: A photonic crystal demonstration. Optics and Lasers in Engineering, 2016, 76, 70-73.	2.0	14
81	Damage Formation in Sn Film Anodes of Na-Ion Batteries. Journal of Physical Chemistry C, 2019, 123, 15244-15250.	1.5	14
82	Photoinduced Temperature Gradients in Subâ€Wavelength Plasmonic Structures: The Thermoplasmonics of Nanocones. Advanced Optical Materials, 2020, 8, 2000568.	3.6	14
83	Plasmon Hybridization in Compressible Metalâ€“Insulatorâ€“Metal Nanocavities: An Optical Approach for Sensing Deep Subâ€Wavelength Deformation. Advanced Optical Materials, 2020, 8, 2000609.	3.6	14
84	Binder-free nanostructured germanium anode for high resilience lithium-ion battery. Electrochimica Acta, 2022, 411, 139832.	2.6	14
85	Cross beam lithography (FIB+EBL) and dip pen nanolithography for nanoparticle conductivity measurements. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, 2806.	1.6	13
86	Facile Synthesis of Highly Graphitized Carbon via Reaction of CaC2 with Sulfur and Its Application for Lithium/Sodium-Ion Batteries. ACS Omega, 2019, 4, 8312-8317.	1.6	13
87	Multimode Coherent Hybrid States: Ultrafast Investigation of Double Rabi Splitting between Surface Plasmons and Sulforhodamine 101 Dyes. Advanced Optical Materials, 2017, 5, 1600857.	3.6	12
88	Towards enhanced sodium storage of anatase TiO₂via a dual-modification approach of Mo doping combined with AlF₃ coating. Nanoscale, 2020, 12, 15896-15904.	2.8	11
89	Ultrafast Plasmonics Beyond the Perturbative Regime: Breaking the Electronic-Optical Dynamics Correspondence. Nano Letters, 2022, 22, 2748-2754.	4.5	11
90	Suitable photo-resists for two-photon polymerization using femtosecond fiber lasers. Microelectronic Engineering, 2014, 121, 135-138.	1.1	10

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91	Disentangling the Temporal Dynamics of Nonthermal Electrons in Photoexcited Gold Nanostructures. Laser and Photonics Reviews, 2021, 15, 2100017.	4.4	10
92	Stacked optical antennas for plasmon propagation in a 5 nm-confined cavity. Scientific Reports, 2015, 5, 11237.	1.6	9
93	Highâ€Frequency Light Rectification by Nanoscale Plasmonic Conical Antenna in Pointâ€Contactâ€Insulatorâ€Metal Architecture. Advanced Energy Materials, 0, , 2103785.	10.2	9
94	Monte Carlo simulation of hot-carrier phenomena in open quantum devices: A kinetic approach. Applied Physics Letters, 2004, 84, 139-141.	1.5	8
95	Optimization of surface plasmon polariton generation in a nanocone through linearly polarized laser beams. Microelectronic Engineering, 2012, 97, 204-207.	1.1	8
96	Planar Aperiodic Arrays as Metasurfaces for Optical Near-Field Patterning. ACS Nano, 2019, 13, 5646-5654.	7.3	8
97	Mapping the local dielectric response at the nanoscale by means of plasmonic force spectroscopy. Optics Express, 2012, 20, 29626.	1.7	7
98	Design and top-down fabrication of metallic L-shape gap nanoantennas supporting plasmon-polariton modes. Microelectronic Engineering, 2013, 111, 91-95.	1.1	7
99	Manipulation of light transmission through sub-wavelength hole array. Journal of Optics, 2007, 9, S450-S457.	1.5	6
100	Multi-shot interference approach for any kind of Bravais lattice. Applied Physics B: Lasers and Optics, 2008, 93, 251-256.	1.1	6
101	Strongly Coupled Hybrid States: Dynamics of Strongly Coupled Hybrid States by Transient Absorption Spectroscopy (Adv. Funct. Mater. 48/2018). Advanced Functional Materials, 2018, 28, 1870342.	7.8	6
102	Tuning temperature gradients in subwavelength plasmonic nanocones with tilted illumination. Optics Letters, 2020, 45, 5472.	1.7	6
103	Allâ€Optical Reconfiguration of Ultrafast Dichroism in Gold Metasurfaces. Advanced Optical Materials, 2022, 10, .	3.6	6
104	Generalized Weylâ€“Wigner formalism for the simulation of open quantum devices: a density-matrix approach. Semiconductor Science and Technology, 2004, 19, S257-S259.	1.0	4
105	Modeling of open quantum devices within the closed-system paradigm. Physical Review B, 2004, 70, .	1.1	4
106	Bottomâ€Gate Approach for All Basic Logic Gates Implementation by a Singleâ€Type IGZOâ€Based MOS Transistor with Reduced Footprint. Advanced Science, 2020, 7, 1901224.	5.6	4
107	Increased performance in genetic manipulation by modeling the dielectric properties of the rodent brain. , 2013, 2013, 1615-8.		3
108	Dark and bright modes manipulation for plasmon-triggered photonic devices. Proceedings of SPIE, 2014, , .	0.8	3

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109	Textured nanofibrils drive microglial phenotype. Biomaterials, 2020, 257, 120177.	5.7	3
110	Photonic Cavity Effects for Enhanced Efficiency in Layered Perovskite-Based Light-Emitting Diodes. Nanomaterials, 2021, 11, 2947.	1.9	3
111	Ultra-compact organic vertical-cavity laser with high-contrast grating feedback for gas detection. IEEE Sensors Journal, 2020, , 1-1.	2.4	2
112	Perovskite nanowire based multijunction solar cell. , 2015, , .		2
113	Novel Plasmonic Probes and Smart Superhydrophobic Devices, New Tools for Forthcoming Spectroscopies at the Nanoscale. NATO Science for Peace and Security Series B: Physics and Biophysics, 2015, , 209-235.	0.2	1
114	Strong Coupling: Dynamics of Strong Coupling between J-Aggregates and Surface Plasmon Polaritons in Subwavelength Hole Arrays (Adv. Funct. Mater. 34/2016). Advanced Functional Materials, 2016, 26, 6197-6197.	7.8	1
115	Metal Structures as Advanced Materials in Nanotechnology. , 2014, , 615-669.		1
116	Improved Efficiency of Lightâ€Emitting Diodes by Plasmonic Nanopatterning of the Chargeâ€Transfer Layer. Advanced Optical Materials, 0, , 2200156.	3.6	1
117	Heat and Temperature Localization via Fabryâ€“PÃ©rot Resonances at the Tip of a Nanofocusing Cone. Advanced Optical Materials, 0, , 2200746.	3.6	1
118	Modelling of open quantum devices within the closed-system paradigm. AIP Conference Proceedings, 2005, , .	0.3	0
119	Superhydrophobicity, plasmonics and Raman spectroscopy for few/single molecule detection down to attomolar concentration. , 2012, , .		0
120	Heating processes in plasmonic resonances: a non-linear temperature dependent permittivity model. Proceedings of SPIE, 2014, , .	0.8	0
121	The magic of nanoplasmonics: from superhydrophobic and 3D suspended devices for SERS/TERS-like applications to hot-electrons based nanoscopy. , 2014, , .		0
122	A Photonic Crystal Explanation For a Butterfly Wing Color. , 2015, , .		0
123	3D Plasmonic nanostar structures for recyclable SERS applications. , 2015, , .		0
124	High temperature nanoplasmonics. , 2016, , .		0
125	Thermo-plasmonics: playing with temperature at the nanoscale (Conference Presentation). , 2017, , .		0
126	4. Battery Materials. , 2018, , 75-260.		0

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127	Nanostructured anode materials. Physical Sciences Reviews, 2018, 3, .	0.8	0
128	Engineering 3D Multi-Branched Nanostructures for Ultra- Sensing Applications. , 2018, , .		0
129	High Temperature Plasmonics: Optical Effects on Different Nanostructures. , 2015, , .		0
130	Coil-type Fano Resonances: a Plasmonic Approach to Magnetic Sub-diffraction Confinement. , 2015, , .		0
131	Photoinduced transient symmetry breaking in plasmonic structures for ultrafast nanophotonics. , 2022, , .		0