Denis Garoli

List of Publications by Year
in descending order

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114 papers	2,361 citations	218677 26 h-index	254184 43 g-index
118 all docs	118 docs citations	118 times ranked	2952 citing authors

#	Article	IF	Citations
1	Enhanced Optical Spectroscopy for Multiplexed DNA and Protein-Sequencing with Plasmonic Nanopores: Challenges and Prospects. Analytical Chemistry, 2022, 94, 503-514.	6.5	25
2	Detection of small-sized DNA fragments in a glassy nanopore by utilization of CRISPR-Cas12a as a converter system. Analyst, The, 2022, 147, 905-914.	3.5	14
3	Multilayers for directed energy accelerated lightsails. Communications Materials, 2022, 3, .	6.9	4
4	Recent advances in plasmonic nanocavities for single-molecule spectroscopy. Nanoscale Advances, 2021, 3, 633-642.	4.6	61
5	Adaptive nanopores: A bioinspired label-free approach for protein sequencing and identification. Nano Research, 2021, 14, 328-333.	10.4	9
6	Dependence of the damage in optical metal/dielectric coatings on the energy of ions in irradiation experiments for space qualification. Scientific Reports, 2021, 11, 3429.	3.3	12
7	Detecting COVID-19 from Breath: A Game Changer for a Big Challenge. ACS Sensors, 2021, 6, 1408-1417.	7.8	88
8	Metal-Modified Montmorillonite as Plasmonic Microstructure for Direct Protein Detection. Sensors, 2021, 21, 2655.	3.8	14
9	Nanoporous Metals: From Plasmonic Properties to Applications in Enhanced Spectroscopy and Photocatalysis. ACS Nano, 2021, 15, 6038-6060.	14.6	120
10	Directional Plasmonic Excitation by Helical Nanotips. Nanomaterials, 2021, 11, 1333.	4.1	9
11	Magnetic control of particle trapping in a hybrid plasmonic nanopore. Applied Physics Letters, 2021, 118, 193102.	3.3	9
12	Plasmomechanical Systems: Principles and Applications. Advanced Functional Materials, 2021, 31, 2103706.	14.9	18
13	Photonic Cavity Effects for Enhanced Efficiency in Layered Perovskite-Based Light-Emitting Diodes. Nanomaterials, 2021, 11, 2947.	4.1	3
14	Electrolyte-gated carbon nanotube field-effect transistor-based biosensors: Principles and applications. Applied Physics Reviews, 2021, 8, 041325.	11.3	49
15	Galvanic Replacement Reaction as a Route to Prepare Nanoporous Aluminum for UV Plasmonics. Nanomaterials, 2020, 10, 102.	4.1	20
16	Bioâ€Assisted Tailored Synthesis of Plasmonic Silver Nanorings and Siteâ€Selective Deposition on Graphene Arrays. Advanced Optical Materials, 2020, 8, 1901583.	7.3	18
17	Ultrafast all-optical switching enabled by epsilon-near-zero-tailored absorption in metal-insulator nanocavities. Communications Physics, 2020, 3, .	5.3	47
18	Î»-DNA through Porous Materialsâ€”Surface-Enhanced Raman Scattering in a Simple Plasmonic Nanopore. Journal of Physical Chemistry C, 2020, 124, 22663-22670.	3.1	28

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19	FÃ¶rster-Resonance Energy Transfer between Diffusing Molecules and a Functionalized Plasmonic Nanopore. Physical Review Applied, 2020, 14, .	3.8	10
20	Mirrors for Space Telescopes: Degradation Issues. Applied Sciences (Switzerland), 2020, 10, 7538.	2.5	33
21	Two-state switchable plasmonic tweezers for dynamic manipulation of nano-objects. Nanoscale, 2020, 12, 8574-8581.	5.6	15
22	Novel Plasmonic Nanocavities for Optical Trappingâ€Assisted Biosensing Applications. Advanced Optical Materials, 2020, 8, 1901481.	7.3	70
23	Multiplexed Discrimination of Single Amino Acid Residues in Polypeptides in a Single SERS Hot Spot. Angewandte Chemie, 2020, 132, 11520-11528.	2.0	0
24	Multiplexed Discrimination of Single Amino Acid Residues in Polypeptides in a Single SERS Hot Spot. Angewandte Chemie - International Edition, 2020, 59, 11423-11431.	13.8	71
25	Particle trapping and beaming using a 3D nanotip excited with a plasmonic vortex. Optics Letters, 2020, 45, 823.	3.3	24
26	A hybrid metalâ€“dielectric zero mode waveguide for enhanced single molecule detection. Chemical Communications, 2019, 55, 9725-9728.	4.1	19
27	Metallic Nanoporous Aluminumâ€“Magnesium Alloy for UV-Enhanced Spectroscopy. Journal of Physical Chemistry C, 2019, 123, 20287-20296.	3.1	27
28	Electrophoretic Deposition of WS2 Flakes on Nanoholes Arraysâ€”Role of Used Suspension Medium. Materials, 2019, 12, 3286.	2.9	7
29	Plasmonic Nanopores for Single-Molecule Detection and Manipulation: Toward Sequencing Applications. Nano Letters, 2019, 19, 7553-7562.	9.1	118
30	Pump-probe spectroscopy study of ultrafast temperature dynamics in nanoporous gold. Physical Review B, 2019, 99, .	3.2	24
31	Nanoscale thermal gradients activated by antenna-enhanced molecular absorption in the mid-infrared. Applied Physics Letters, 2019, 114, 023105.	3.3	5
32	Site-Selective Integration of MoS₂ Flakes on Nanopores by Means of Electrophoretic Deposition. ACS Omega, 2019, 4, 9294-9300.	3.5	16
33	Site-selective functionalization of plasmonic nanopores for enhanced fluorescence emission rate and FÃ¶rster resonance energy transfer. Nanoscale Advances, 2019, 1, 2454-2461.	4.6	19
34	Nanoporous gold metamaterials for high sensitivity plasmonic sensing. Nanoscale Horizons, 2019, 4, 1153-1157.	8.0	46
35	SERS discrimination of single DNA bases in single oligonucleotides by electro-plasmonic trapping. Nature Communications, 2019, 10, 5321.	12.8	151
36	Effect of Ni Doping on the MoS2 Structure and Its Hydrogen Evolution Activity in Acid and Alkaline Electrolytes. Surfaces, 2019, 2, 531-545.	2.3	34

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37	3D nanoporous antennas as a platform for high sensitivity IR plasmonic sensing. Optics Express, 2019, 27, 25912.	3.4	8
38	Plasmonic nanopore prepared on MoS2 membrane - hybrid nanostructures based on site selective deposition. , 2019, , .		0
39	Helical light emission from plasmonic vortices via magnetic tapered tip. Journal of Physics: Conference Series, 2018, 961, 012001.	0.4	0
40	Coreactant electrochemiluminescence at nanoporous gold electrodes. Electrochimica Acta, 2018, 277, 168-175.	5.2	24
41	Thermoplasmonic Effect of Surface-Enhanced Infrared Absorption in Vertical Nanoantenna Arrays. Journal of Physical Chemistry C, 2018, 122, 13072-13081.	3.1	18
42	Optimizing FRET on Aluminum Surfaces via Controlled Attachment of Fluorescent Dyes. ACS Omega, 2018, 3, 18867-18876.	3.5	6
43	Plasmonic zero mode waveguide for highly confined and enhanced fluorescence emission. Nanoscale, 2018, 10, 17362-17369.	5.6	30
44	Hybrid plasmonic nanostructures based on controlled integration of MoS2 flakes on metallic nanoholes. Nanoscale, 2018, 10, 17105-17111.	5.6	32
45	Fractal-Like Plasmonic Metamaterial with a Tailorable Plasma Frequency in the near-Infrared. ACS Photonics, 2018, 5, 3408-3414.	6.6	32
46	Plasmonic meta-electrodes allow intracellular recordings at network level on high-density CMOS-multi-electrode arrays. Nature Nanotechnology, 2018, 13, 965-971.	31.5	78
47	Live Intracellular Biorthogonal Imaging by Surface Enhanced Raman Spectroscopy using Alkyne-Silver Nanoparticles Clusters. Scientific Reports, 2018, 8, 12652.	3.3	23
48	Fractal plasmonic metamaterial with tunable properties in the near-infrared. , 2018, , .		0
49	Helicity locking of chiral light emitted from a plasmonic nanotaper. Nanoscale, 2017, 9, 6965-6969.	5.6	28
50	In situ real-time investigation of hydrogen-induced structural and optical changes in palladium thin films. Journal of Alloys and Compounds, 2017, 704, 303-310.	5.5	8
51	Boosting infrared energy transfer in 3D nanoporous gold antennas. Nanoscale, 2017, 9, 915-922.	5.6	42
52	Magnetoplasmonic control of plasmonic vortices. Applied Physics Letters, 2017, 111, .	3.3	14
53	Nanoporous gold decorated with silver nanoparticles as large area efficient SERS substrate. , 2017, , .		2
54	Efficient OAM generation at the nanoscale level by means of plasmonic vortex lens. , 2017, , .		0

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55	Multilayer coatings for multiband spectral observations. , 2017, , .		0
56	Modified three-dimensional nanoantennas for infrared hydrogen detection. Microelectronic Engineering, 2016, 162, 105-109.	2.4	9
57	In situ study of structural and optical properties of Pd thin film during hydrogen exposure. , 2016, , .		0
58	Beaming of Helical Light from Plasmonic Vortices via Adiabatically Tapered Nanotip. Nano Letters, 2016, 16, 6636-6643.	9.1	45
59	Optical vortex beam generator at nanoscale level. Scientific Reports, 2016, 6, 29547.	3.3	35
60	Directly nanopatternable nanoporous titania â€“ Application to cell growth engineering. Microelectronic Engineering, 2016, 155, 102-106.	2.4	6
61	Nanoporous gold leaves: preparation, optical characterization, and biosensing capabilities. , 2015, , .		0
62	Nanofocusing on circularly distributed tapered metallic waveguides by means of plasmonic vortex lenses. Applied Optics, 2015, 54, 1161.	1.8	6
63	Engineered/tailored nanoporous gold structures for infrared plasmonics. Proceedings of SPIE, 2015, , .	0.8	1
64	Directly patternable high refractive index ferroelectric solâ€“gel resist. Materials Chemistry and Physics, 2015, 164, 63-70.	4.0	7
65	Nanoporous gold leaves: preparation, optical characterization and plasmonic behavior in the visible and mid-infrared spectral regions. Optical Materials Express, 2015, 5, 2246.	3.0	13
66	Sub-wavelength confinement of the orbital angular momentum of light probed by plasmonic nanoantennae resonances. , 2015, , .		0
67	Far field beaming of Orbital Angular Momentum light states. Proceedings of SPIE, 2015, , .	0.8	0
68	Development of a complete plasmonic grating-based sensor and its application for self-assembled monolayer detection. Applied Optics, 2014, 53, 5969.	1.8	7
69	Bilayer holey plasmonic vortex lenses for the far field transmission of pure orbital angular momentum light states. Optics Letters, 2014, 39, 4899.	3.3	26
70	Sub-wavelength confinement of the orbital angular momentum of light probed by plasmonic nanorods resonances. Optics Express, 2014, 22, 26302.	3.4	14
71	Zirconia based functional solâ€“gel resist for UV and high resolution lithography. Microelectronic Engineering, 2013, 110, 436-440.	2.4	10
72	Microscopic View on a Chemical Vapor Deposition Route to Boron-Doped Graphene Nanostructures. Chemistry of Materials, 2013, 25, 1490-1495.	6.7	130

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73	Nanoporous goldâ€"Application to extraordinary optical transmission of light. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2013, 31, 012601.	1.2	7
74	In Vitro Evaluation of Sunscreens: An Update for the Clinicians. ISRN Dermatology, 2012, 2012, 1-4.	1.9	28
75	Plasmonic nanofocusing by means of metal coated dielectric nanowedges. Proceedings of SPIE, 2012, , .	0.8	0
76	Wedge nanostructures for plasmonic nanofocusing. Optics Express, 2012, 20, 16224.	3.4	14
77	Focusing dynamics on circular distributed tapered metallic waveguides by means of plasmonic vortex lenses. Optics Letters, 2012, 37, 4516.	3.3	17
78	Optical and structural properties of low thickness lead zirconate titanate films on sapphire substrates prepared via sol-gel method. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2012, 30, 051512.	2.1	3
79	Design and Parametrical Analysis of Metamaterial Stacks in the Visible Spectral Range. Journal of Computational and Theoretical Nanoscience, 2012, 9, 448-455.	0.4	1
80	FIB lithography of nanoporous gold slits for extraordinary transmission. Microelectronic Engineering, 2012, 98, 419-423.	2.4	9
81	Growth and optical properties of silver nanostructures obtained on connected anodic aluminum oxide templates. Nanotechnology, 2012, 23, 325604.	2.6	19
82	Patterned nanoporous-gold thin layers: Structure control and tailoring of plasmonic properties. Microporous and Mesoporous Materials, 2012, 163, 153-159.	4.4	23
83	Extraordinary optical transmission in one-dimensional gold gratings: near- and far-field analysis. Applied Optics, 2011, 50, 4529.	2.1	22
84	Nanoporous gold plasmonic structures for sensing applications. Optics Express, 2011, 19, 13164.	3.4	58
85	Synthesis of heteroepytaxial 3C-SiC by means of PLD. Applied Physics A: Materials Science and Processing, 2011, 105, 225-231.	2.3	11
86	Preparation of tetrapodâ€like ZnO/TiO₂ coreâ€shell nanostructures as photocatalytic powder. Crystal Research and Technology, 2011, 46, 885-890.	1.3	13
87	Spectroscopic study of Î²â€SiC prepared via PLD at 1064 nm. Crystal Research and Technology, 2011, 46, 784-788.	1.3	2
88	X-ray absorption study of silicon carbide thin film deposited by pulsed laser deposition. Journal of Electron Spectroscopy and Related Phenomena, 2011, 184, 240-244.	1.7	3
89	Design, fabrication and characterization of plasmonic gratings for SERS. Microelectronic Engineering, 2011, 88, 2717-2720.	2.4	16
90	Fabrication of â€œnano-rocket-tipsâ€•for plasmonic nanofocusing. Microelectronic Engineering, 2011, 88, 2530-2532.	2.4	5

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91	Fabrication of metamaterials in the optical spectral range. Microelectronic Engineering, 2011, 88, 1951-1954.	2.4	3
92	Structural characterization of lead zirconate titanate thin films prepared on different electrodes and on silicon substrates. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2011, 29, 061505.	2.1	4
93	Crystalline 3C-SiC Deposited by PLD Using Different Manufactured Targets. , 2010, , .		4
94	Simbol-X Hard X-ray Focusing Mirrors: Results Obtained During the Phase A Study. , 2009, , .		3
95	Effectiveness of different substrate materials for in vitro sunscreen tests. Journal of Dermatological Science, 2009, 56, 89-98.	1.9	27
96	Enabling deposition of hard x-ray reflective coatings as an industrial manufacturing process. , 2009, , .		0
97	Sunscreen tests: Correspondence between in vitro data and values reported by the manufacturers. Journal of Dermatological Science, 2008, 52, 193-204.	1.9	36
98	Transmittance and optical constants of Eu films from 8.3 to 1400 eV. Journal of Applied Physics, 2008, 104, .	2.5	16
99	Transmittance and optical constants of Pr films in the 4â€“1600eV spectral range. Journal of Applied Physics, 2008, 103, .	2.5	19
100	Characterization of the optical constants of materials from the visible to the soft x-rays. Proceedings of SPIE, 2008, , .	0.8	2
101	Transmittance and optical constants of evaporated Pr, Eu, and Tm films in the 4-1600 eV spectral range. Proceedings of SPIE, 2008, , .	0.8	2
102	Transmittance and optical constants of Ce films in the 6â€“1200eV spectral range. Journal of Applied Physics, 2008, 103, .	2.5	15
103	Progress report on a 14.4-nm micro-exposure tool based on a laser-produced-plasma: debris mitigation system results and other issues. , 2007, , .		5
104	Optical constants of Yb films in the 23-1700 eV range. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2007, 24, 3691.	1.5	15
105	Realization of a radiometric head for measurements of ultraviolet total erythemal effective irradiance. Applied Optics, 2007, 46, 4977.	2.1	2
106	Reflectance measurements and optical constants in the extreme ultraviolet-vacuum ultraviolet regions for SiC with a different C/Si ratio. Applied Optics, 2006, 45, 5642.	2.1	20
107	Determination of the transmittance and extinction coefficient of Yb films in the 23-1700 eV range. , 2006, , .		2
108	Transmittance and extinction coefficient of Ce films measured in situ in the extreme ultraviolet and soft x-rays. , 2006, 6317, 239.		0

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109	Thin film and multilayer coating development for the extreme ultraviolet spectral region. Radiation Physics and Chemistry, 2006, 75, 1966-1971.	2.8	8
110	Optical constants in the EUV soft x-ray (5Ã·152 nm) spectral range of B 4 C thin films deposited by different deposition techniques. , 2006, 6317, 286.		12
111	VUV reflectance measurements and optical constants of SiC thin films. Journal of Electron Spectroscopy and Related Phenomena, 2005, 144-147, 987-992.	1.7	4
112	Space applications of Si/B 4 C multilayer coatings at extreme ultra-violet region; comparison with standard Mo/Si coatings. , 2005, 5901, 161.		4
113	Absolute spectral response measurements of different photodiodes useful for applications in the UV spectral region. , 2004, , .		1
114	Highâ€Frequency Light Rectification by Nanoscale Plasmonic Conical Antenna in Pointâ€Contactâ€Insulatorâ€Metal Architecture. Advanced Energy Materials, 0, , 2103785.	19.5	9