Marco Lazzarino

List of Publications by Year
in descending order

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130	2,322	236612	253896
papers	citations	25 h-index	43 g-index

131	131	131	3724
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Nanoscale chemical mapping using three-dimensional adiabatic compression of surface plasmon polaritons. Nature Nanotechnology, 2010, 5, 67-72.	15.6	352
2	Membrane stiffening by STOML3 facilitates mechanosensation in sensory neurons. Nature Communications, 2015, 6, 8512.	5.8	127
3	Acetylated tubulin is essential for touch sensation in mice. ELife, 2016, 5, .	2.8	78
4	Surface plasmon on Ag(110): Observation of linear and positive dispersion and strong azimuthal anisotropy. Physical Review Letters, 1992, 69, 2122-2125.	2.9	75
5	Growth by molecular beam epitaxy and electrical characterization of GaAs nanowires. Physica E: Low-Dimensional Systems and Nanostructures, 2007, 37, 134-137.	1.3	66
6	Manganese-Induced Growth of GaAs Nanowires. Nano Letters, 2006, 6, 2130-2134.	4.5	61
7	Acceleration of neuronal precursors differentiation induced by substrate nanotopography. Biotechnology and Bioengineering, 2011, 108, 2736-2746.	1.7	58
8	Comment on â€˜â€˜Surface-plasmon energy and dispersion on Ag single crystalsâ€™â€™. Physical Review Letters, 1991, 67, 3197-3197.	2.9	53
9	Soft X-Ray Microscopy Radiation Damage On Fixed Cells Investigated With Synchrotron Radiation FTIR Microscopy. Scientific Reports, 2015, 5, 10250.	1.6	53
10	Modulation of Alpha-Synuclein Aggregation by Dopamine Analogs. PLoS ONE, 2010, 5, e9234.	1.1	52
11	In-Plane Bandgap Engineering by Modulated Hydrogenation of Dilute Nitride Semiconductors. Advanced Materials, 2006, 18, 1993-1997.	11.1	51
12	A Revertible, Autonomous, Self-Assembled DNA-Origami Nanoactuator. Nano Letters, 2011, 11, 5449-5454.	4.5	49
13	Investigation of Adhesion and Mechanical Properties of Human Glioma Cells by Single Cell Force Spectroscopy and Atomic Force Microscopy. PLoS ONE, 2014, 9, e112582.	1.1	47
14	A DNA Origami Nanorobot Controlled by Nucleic Acid Hybridization. Small, 2014, 10, 2918-2926.	5.2	47
15	Perspectives of Microscopy Methods for Morphology Characterisation of Extracellular Vesicles from Human Biofluids. Biomedicines, 2021, 9, 603.	1.4	43
16	Fast Detection of Biomolecules in Diffusion-Limited Regime Using Micromechanical Pillars. ACS Nano, 2011, 5, 7928-7935.	7.3	42
17	Deposition of MBa2Cu3O7-xthin films by channel-spark method. Superconductor Science and Technology, 1995, 8, 160-164.	1.8	39
18	Atomic force microscope anodic oxidation studied by spectroscopic microscopy. Applied Physics Letters, 2002, 81, 2842-2844.	1.5	37

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19	Investigating the mechanical properties of zona pellucida of whole human oocytes by atomic force spectroscopy. Integrative Biology (United Kingdom), 2016, 8, 886-893.	0.6	36
20	Integration of confocal and atomic force microscopy images. Journal of Neuroscience Methods, 2009, 177, 94-107.	1.3	32
21	Graphene nanobubbles on TiO₂for in-operando electron spectroscopy of liquid-phase chemistry. Nanoscale, 2017, 9, 4456-4466.	2.8	32
22	Planar AFM macro-probes to study the biomechanical properties of large cells and 3D cell spheroids. Acta Biomaterialia, 2019, 94, 505-513.	4.1	30
23	Resonant Transport in Nb/GaAs/AlGaAs Heterostructures: Realization of the de Gennesâ€“Saint-James Model. Physical Review Letters, 2001, 87, 216808.	2.9	29
24	Andreev reflection in Si-engineered Al/InGaAs hybrid junctions. Applied Physics Letters, 1998, 73, 3890-3892.	1.5	28
25	A Fully 3D Interconnected Grapheneâ€“Carbon Nanotube Web Allows the Study of Glioma Infiltration in Bioengineered 3D Cortexâ€Like Networks. Advanced Materials, 2018, 30, e1806132.	11.1	28
26	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
27	Nanomechanics controls neuronal precursors adhesion and differentiation. Biotechnology and Bioengineering, 2013, 110, 2301-2310.	1.7	24
28	Conformational rearrangements in the transmembrane domain of CNGA1 channels revealed by single-molecule force spectroscopy. Nature Communications, 2015, 6, 7093.	5.8	24
29	High-performance planar light-emitting diodes. Applied Physics Letters, 2003, 82, 636-638.	1.5	23
30	Triple coupled cantilever systems for mass detection and localization. Sensors and Actuators A: Physical, 2012, 175, 127-131.	2.0	22
31	Plasmon resonance tuning using DNA origami actuation. Chemical Communications, 2015, 51, 4789-4792.	2.2	22
32	Asymmetrical twin cantilevers for single molecule detection. Applied Physics Letters, 2007, 90, 173118.	1.5	21
33	A morphological analysis of growth cones of DRG neurons combining Atomic Force and Confocal Microscopy. Journal of Structural Biology, 2009, 168, 366-377.	1.3	19
34	Desorption dynamics of oxide nanostructures fabricated by local anodic oxidation nanolithography. Journal of Applied Physics, 2005, 97, 114324.	1.1	18
35	Knock Down of Plakophillin 2 Dysregulates Adhesion Pathway through Upregulation of miR200b and Alters the Mechanical Properties in Cardiac Cells. Cells, 2019, 8, 1639.	1.8	18
36	Chemical composition of GaAs oxides grown by local anodic oxidation: a spatially resolved Auger study. Chemical Physics Letters, 2005, 402, 155-159.	1.2	17

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37	Structural Insights into Alternate Aggregated Prion Protein Forms. Journal of Molecular Biology, 2009, 393, 1033-1042.	2.0	17
38	Heart failure impairs the mechanotransduction properties of human cardiac pericytes. Journal of Molecular and Cellular Cardiology, 2021, 151, 15-30.	0.9	17
39	Band offsets in Zn1â^'xCdxSe/ZnSe multiple quantum wells. Journal of Applied Physics, 1996, 79, 929.	1.1	16
40	Parallel optical read-out of micromechanical pillars applied to prostate specific membrane antigen detection. Biosensors and Bioelectronics, 2015, 72, 393-399.	5.3	16
41	Noise measurements in resonant tunnelling structures as a function of current and temperature. Electronics Letters, 1995, 31, 503-505.	0.5	15
42	Twin cantilevers with a nanogap for single molecule experimentation. Microelectronic Engineering, 2006, 83, 1309-1311.	1.1	15
43	Tip enhanced Raman scattering with adiabatic plasmon focusing tips. Micron, 2011, 42, 313-317.	1.1	15
44	Highly efficient gold nanoparticle dimer formation via DNA hybridization. RSC Advances, 2014, 4, 15281.	1.7	15
45	Contamination-free suspended graphene structures by a Ti-based transfer method. Carbon, 2016, 103, 305-310.	5.4	15
46	Plasmon damping and surface interband transitions on Ag(001) and (011). Surface Science, 1992, 269-270, 560-562.	0.8	13
47	Thermal stability of engineered Schottky barriers in Al/Si/GaAs(001) diodes. Applied Physics Letters, 1996, 69, 1927-1929.	1.5	13
48	Photo-induced surface encoding of gold nanoparticles. Chemical Communications, 2015, 51, 3363-3366.	2.2	13
49	Design of broadband SERS substrates by the laser-induced aggregation of gold nanoparticles. Journal of Materials Chemistry C, 2016, 4, 6152-6159.	2.7	13
50	GaAs Oxide Desorption under Extreme Ultraviolet Photon Flux. Advanced Functional Materials, 2005, 15, 587-592.	7.8	12
51	Graphene Nanoreactors: Photoreduction of Prussian Blue in Aqueous Solution. Journal of Physical Chemistry C, 2017, 121, 22225-22233.	1.5	12
52	Truly ohmic contacts in engineered Al/Si/InGaAs(001) diodes. Applied Physics Letters, 1998, 72, 1996-1998.	1.5	11
53	PTFE nanoemulsions as ultralow-k dielectric materials. Materials Science in Semiconductor Processing, 2002, 5, 285-290.	1.9	11
54	A new transparent Bio-MEMS for uni-axial single cell stretching. Microsystem Technologies, 2011, 17, 1581-1587.	1.2	11

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55	Strain and surface morphology in lattice-matched ZnSe/InxGa1â^'xAs heterostructures. Journal of Applied Physics, 1998, 83, 2504-2510.	1.1	10
56	Al/ZnSe(100) Schottky-barrier height versus initial ZnSe surface reconstruction. Physical Review B, 1998, 57, R9431-R9434.	1.1	10
57	Inverted tapered pillars for mass sensing. Microelectronic Engineering, 2010, 87, 730-733.	1.1	10
58	Hotâ€electron multiquantum well microwave detector operating at room temperature. Applied Physics Letters, 1995, 67, 250-252.	1.5	9
59	Reflectionless tunneling in planar Nb/GaAs hybrid junctions. Applied Physics Letters, 2001, 78, 1772-1774.	1.5	9
60	Evidence of material mixing during local anodic oxidation nanolithography. Journal of Applied Physics, 2005, 98, 114303.	1.1	9
61	Chemistry and formation process of Ga(Al)As oxide during local anodic oxidation nanolithography. Surface Science, 2006, 600, 3739-3743.	0.8	9
62	Probing Pauli blocking with shot noise in resonant tunneling diodes: Experiment and theory. Physical Review B, 2007, 75, .	1.1	9
63	High aspect ratio silicon nanowires control fibroblast adhesion and cytoskeleton organization. Nanotechnology, 2017, 28, 155102.	1.3	9
64	Low resistance graded contacts to nâ€type ZnSe. Applied Physics Letters, 1996, 68, 370-372.	1.5	8
65	Zn0.85Cd0.15Se active layers on graded-composition InxGa1â^'xAs buffer layers. Journal of Applied Physics, 1999, 85, 8160-8169.	1.1	8
66	Ideal unreactive metal/semiconductor interfaces:â€ƒThe case ofZn/ZnSe(001). Physical Review B, 2001, 63, .	1.1	8
67	Magnetic field and temperature dependence of an atomic force microscope-defined quantum point contact. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2004, 22, 570.	1.6	8
68	Study of the mechanical properties of fresh and cryopreserved individual human oocytes. European Biophysics Journal, 2019, 48, 585-592.	1.2	8
69	Changes in Biomechanical Properties of A375 Cells Due to the Silencing of TMSB4X Expression Are Not Directly Correlated with Alterations in Their Stemness Features. Cells, 2021, 10, 769.	1.8	8
70	Band-offset determination in multiple quantum wells. Journal of Crystal Growth, 1996, 159, 498-501.	0.7	7
71	High-field transport in superlattices: observation of the Stark-cyclotron resonance. Superlattices and Microstructures, 1997, 22, 155-159.	1.4	7
72	Heater-Integrated Cantilevers for Nano-Samples Thermogravimetric Analysis. Sensors, 2013, 13, 16657-16671.	2.1	7

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73	Enhanced plasmonic properties of gold-catalysed semiconductor nanowires. Nanoscale, 2014, 6, 13651-13659.	2.8	7
74	How to engineer superhydrophobic micromechanical sensors preserving mass resolution. Sensors and Actuators B: Chemical, 2014, 199, 62-69.	4.0	7
75	Evidence of two-electron tunneling interference in Nb/InAs junctions. Physical Review B, 2000, 62, 9831-9834.	1.1	6
76	Tunable Schottky barrier contacts to In[sub x]Ga[sub 1â^'x]As. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2000, 18, 2119.	1.6	6
77	PTFE nanoemulsions as ultralow-k dielectric materials. Macromolecular Symposia, 2002, 179, 347-358.	0.4	6
78	X-ray induced variation of the chemistry of GaAs/AlAs oxide nanostructures. Nuclear Instruments & Methods in Physics Research B, 2006, 246, 39-44.	0.6	6
79	Atomic force microscopy investigation of morphological changes in living keratinocytes treated with HgCl2 at not cytotoxic doses. Journal of Microscopy, 2011, 243, 40-46.	0.8	6
80	Fragmentation as a Mechanism for Growth Cone Pruning and Degeneration. Stem Cells and Development, 2011, 20, 1031-1041.	1.1	6
81	Combined use of AFM and soft X-ray microscopy to reveal fibresâ€™ internalization in mesothelial cells. Analyst, The, 2017, 142, 1982-1992.	1.7	6
82	Generation of coherent magnons in NiO stimulated by EUV pulses from a seeded free-electron laser. Physical Review Materials, 2017, 1, .	0.9	6
83	Ohmic versus rectifying contacts through interfacial dipoles: Al/InxGa1â^'xAs. Journal of Crystal Growth, 1999, 201-202, 769-772.	0.7	4
84	Fluorescence excitation by enhanced plasmon upconversion under continuous wave illumination. Photonics and Nanostructures - Fundamentals and Applications, 2016, 21, 32-43.	1.0	4
85	A novel approach in the free-electron laser diagnosisÂbased on a pixelated phosphor detector. Journal of Synchrotron Radiation, 2016, 23, 29-34.	1.0	4
86	Frequency Modulated Raman Spectroscopy. ACS Photonics, 2018, 5, 312-317.	3.2	4
87	Chemical composition and interaction strength of two-dimensional boronâ€‘nitrogenâ€‘carbon heterostructures driven by polycrystalline metallic surfaces. Applied Surface Science, 2019, 479, 903-913.	3.1	4
88	Electrical characterization of engineered ZnSeî—¸GaAs heterojunction diodes. Journal of Crystal Growth, 1997, 175-176, 603-607.	0.7	3
89	Controlling interface reactivity and Schottky barrier height in Auâ^•ZnSe(001) junctions. Journal of Vacuum Science & Technology B, 2006, 24, 1259.	1.3	3
90	Intrinsically aligned chemo-mechanical functionalization of twin cantilever structures. Nanotechnology, 2008, 19, 445502.	1.3	3

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91	Toward an integrated device for spatiotemporal superposition of free-electron lasers and laser pulses. Optics Letters, 2016, 41, 5090.	1.7	3
92	Ultraâ€structural analysis of human spermatozoa by aperture scanning nearâ€field optical microscopy. Journal of Biophotonics, 2020, 13, e2418.	1.1	3
93	Soft x-ray spectroscopies in liquids and at solidâ€“liquid interface at BACH beamline at Elettra. Review of Scientific Instruments, 2021, 92, 015115.	0.6	3
94	Scanning Probe Microscopies: Imaging and Biomechanics in Reproductive Medicine Research. International Journal of Molecular Sciences, 2021, 22, 3823.	1.8	3
95	Microfabricated cantilevers for parallelized cell-cell adhesion measurements. European Biophysics Journal, 2021, , 1.	1.2	3
96	The Role of Cytoskeleton Revealed by Quartz Crystal Microbalance and Digital Holographic Microscopy. International Journal of Molecular Sciences, 2022, 23, 4108.	1.8	3
97	Hole-assisted Zener magnetotunneling in heterostructures. Applied Physics Letters, 1998, 73, 3553-3555.	1.5	2
98	AFM anodization studied by spectromicroscopy. Nuclear Instruments & Methods in Physics Research B, 2003, 200, 46-51.	0.6	2
99	Actuation of silicon pillar micro-mechanical resonators by Kelvin polarization force. Microelectronic Engineering, 2013, 111, 1-6.	1.1	2
100	A micromechanical switchable hot spot for SERS applications. Applied Physics Letters, 2016, 109, 131108.	1.5	2
101	Cortexâ€Like Networks: A Fully 3D Interconnected Grapheneâ€“Carbon Nanotube Web Allows the Study of Glioma Infiltration in Bioengineered 3D Cortexâ€Like Networks (Adv. Mater. 52/2018). Advanced Materials, 2018, 30, 1870397.	11.1	2
102	Tuning Gold Nanoparticles Plasmonic Properties by DNA Nanotechnology. Methods in Molecular Biology, 2018, 1811, 279-297.	0.4	2
103	A nanofabricated wirescanner with free standing wires: Design, fabrication and experimental results. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2018, 891, 32-36.	0.7	2
104	A DNA origami plasmonic sensor with environment-independent read-out. Nano Research, 2019, 12, 2900-2907.	5.8	2
105	Experimental Study of Fewâ€Layer Graphene: Optical Anisotropy and Pseudoâ€Brewster Angle Shift in Vacuum Ultraviolet Spectral Range. Advanced Photonics Research, 2021, 2, 2000207.	1.7	2
106	Nanofabricated free-standing wire scanners for beam diagnostics with submicrometer resolution. Physical Review Accelerators and Beams, 2020, 23, .	0.6	2
107	AFM macro-probes to investigate whole 3D cardiac spheroids. Micro and Nano Engineering, 2022, 15, 100134.	1.4	2
108	Lattice-matched Zn1â^'yCdySe/InxGa1â^'xAs(0 0 1) heterostructures. Journal of Crystal Growth, 1998, 184-185, 21-25.	0.7	1

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109	MORPHOLOGY AND CHEMISTRY OF S-TREATED GaAs(001) SURFACES. Surface Review and Letters, 2002, 09, 413-423.	0.5	1
110	Chemical functionalization of atomically flat cantilever surfaces. Microelectronic Engineering, 2009, 86, 1200-1203.	1.1	1
111	Effect of PDMS Nanopatterned Substrates on Embryonic Stem Cells Differentiation into Neuronal Lineage. Biophysical Journal, 2011, 100, 622a.	0.2	1
112	A completely transparent MEMS for mechanical properties evaluation of a single living cell. Proceedings of SPIE, 2011, , .	0.8	1
113	A study on the cellular structure during stress solicitation induced by BioMEMS. , 2011, 2011, 2455-8.		1
114	Nanoscale chemical mapping through plasmonic tips on AFM-based cantilevers. , 2012, , .		1
115	Cycloaddition Functionalization of Cleaved Microstructures. ChemPhysChem, 2012, 13, 459-462.	1.0	1
116	Tip-Assisted Optical Nanoscopy for Single-Molecule Activation and Detection. Advances in Atom and Single Molecule Machines, 2014, , 61-83.	0.0	1
117	Microfabricated wire scanner for photon beam characterization. Journal of Instrumentation, 2018, 13, C03037-C03037.	0.5	1
118	Oxygen diffusion in GdBa2 Cu3O(6+y) thin films. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1997, 19, 1047-1052.	0.4	0
119	Schottky barrier tunability in Al/ZnSe interfaces. Journal of Crystal Growth, 1998, 184-185, 193-198.	0.7	0
120	Andreev reflection in engineered Al/Si/In_xGa_{1â^'x}As(001) junctions. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2000, 80, 817-823.	0.6	0
121	Metal/IIIâ€“V diodes engineered by means of Si interlayers: Interface reactions versus local interface dipoles. Applied Physics Letters, 2001, 79, 1462-1464.	1.5	0
122	Fabrication And Characterization Of Mn-catalyzed GaAs Nanowires. AIP Conference Proceedings, 2007, , .	0.3	0
123	Single Molecule Force Spectroscopy of CNGA1 Channels â€œIn Situâ€•Reveals Major Conformational Changes upon Gating. Biophysical Journal, 2014, 106, 392a.	0.2	0
124	Cell Adhesion on Silicon Nanowires. Biophysical Journal, 2014, 106, 389a.	0.2	0
125	Confined Illumination through Apertureless and Nano-Structured Tapered Optical Fibres. Biophysical Journal, 2014, 106, 621a.	0.2	0
126	Restricted Spots of Light Reveal an Efficacy Gradient of the Phototransduction Cascade Along the Rod Outer Segment. Biophysical Journal, 2014, 106, 20a.	0.2	0

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127	Nanobiomechanics and Mechanotransduction of Sensory Neurons. Biophysical Journal, 2015, 108, 560a.	0.2	0
128	P752Pericyte/mural cells of ischemic human hearts show impairment of mechanotransduction, attenuating YAP signaling. European Heart Journal, 2019, 40, .	1.0	0
129	Investigating Adhesion Proteins by Single Cell Force Spectroscopy. Advances in Atom and Single Molecule Machines, 2014, , 149-168.	0.0	0
130	Microfabrication of sealable microcell array with ultrathin metal-graphene membrane. Micro and Nano Engineering, 2022, 15, 100120.	1.4	0