Giovanni Longo

List of Publications by Year in descending order

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71 papers	2,220 citations	257450 24 h-index	243625 44 g-index

72 all docs	72 docs citations	72 times ranked	3325 citing authors

#	Article	IF	Citations
1	Rapid detection of bacterial resistance to antibiotics using AFM cantilevers as nanomechanical sensors. Nature Nanotechnology, 2013, 8, 522-526.	31.5	296
2	Infrared nanospectroscopy characterization of oligomeric and fibrillar aggregates during amyloid formation. Nature Communications, 2015, 6, 7831.	12.8	245
3	Nanoscale studies link amyloid maturity with polyglutamine diseases onset. Scientific Reports, 2016, 6, 31155.	3.3	130
4	Detecting nanoscale vibrations as signature of life. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 378-381.	7.1	118
5	Mechanical properties of biological specimens explored by atomic force microscopy. Journal Physics D: Applied Physics, 2013, 46, 133001.	2.8	113
6	The role of oxidative stress in Friedreich's ataxia. FEBS Letters, 2018, 592, 718-727.	2.8	76
7	The how, when, and why of the aging signals appearing on the human erythrocyte membrane: an atomic force microscopy study of surface roughness. Nanomedicine: Nanotechnology, Biology, and Medicine, 2010, 6, 760-768.	3.3	68
8	Investigation of resins suitable for the preparation of biological sample for 3-D electron microscopy. Journal of Structural Biology, 2015, 189, 135-146.	2.8	61
9	Nanomechanical sensor applied to blood culture pellets: a fast approach to determine the antibiotic susceptibility against agents of bloodstream infections. Clinical Microbiology and Infection, 2017, 23, 400-405.	6.0	54
10	Carboxylic acid terminated monolayer formation on crystalline silicon and silicon nitride surfaces. A surface coverage determination with a fluorescent probe in solutionElectronic Supplementary Information (ESI) available: analytical data of the new compounds and general information on the instruments used for their characterization. See http://www.rsc.org/suppdata/jm/b3/b312273e/. Journal of Materials Chemistry, 2004, 14, 1461.	6.7	50
11	Force volume and stiffness tomography investigation on the dynamics of stiff material under bacterial membranes. Journal of Molecular Recognition, 2012, 25, 278-284.	2.1	47
12	Antibiotic-induced modifications of the stiffness of bacterial membranes. Journal of Microbiological Methods, 2013, 93, 80-84.	1.6	46
13	Identification of Oxidative Stress in Red Blood Cells with Nanoscale Chemical Resolution by Infrared Nanospectroscopy. International Journal of Molecular Sciences, 2018, 19, 2582.	4.1	46
14	Direct-write nanoscale printing of nanogranular tunnelling strain sensors for sub-micrometre cantilevers. Nature Communications, 2016, 7, 12487.	12.8	40
15	Osseointegration is improved by coating titanium implants with a nanostructured thin film with titanium carbide and titanium oxides clustered around graphitic carbon. Materials Science and Engineering C, 2017, 70, 264-271.	7.3	39
16	Combination of fluorescence microscopy and nanomotion detection to characterize bacteria. Journal of Molecular Recognition, 2013, 26, 590-595.	2.1	34
17	Effects of antibacterial agents and drugs monitored by atomic force microscopy. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2014, 6, 230-244.	6.1	34
18	Hyperplectonemes: A Higher Order Compact and Dynamic DNA Self-Organization. Nano Letters, 2017, 17, 1938-1948.	9.1	34

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19	Stiffness tomography exploration of living and fixed macrophages. Journal of Molecular Recognition, 2012, 25, 241-246.	2.1	33
20	Erythrocyteâ€™s aging in microgravity highlights how environmental stimuli shape metabolism and morphology. Scientific Reports, 2018, 8, 5277.	3.3	31
21	Controlled loading of oligodeoxyribonucleotide monolayers onto unoxidized crystalline silicon; fluorescence-based determination of the surface coverage and of the hybridization efficiency; parallel imaging of the process by Atomic Force Microscopy. Nucleic Acids Research, 2006, 34, e32-e32.	14.5	30
22	Time-Lapse AFM Imaging of DNA Conformational Changes Induced by Daunorubicin. Nano Letters, 2013, 13, 5679-5684.	9.1	27
23	Nanomotion detection based on atomic force microscopy cantilevers. Cell Surface, 2019, 5, 100021.	3.0	27
24	The response of giant phospholipid vesicles to millimeter waves radiation. Biochimica Et Biophysica Acta - Biomembranes, 2009, 1788, 1497-1507.	2.6	26
25	Real-Time Monitoring of Protein Conformational Changes Using a Nano-Mechanical Sensor. PLoS ONE, 2014, 9, e103674.	2.5	26
26	A Rapid Unraveling of the Activity and Antibiotic Susceptibility of Mycobacteria. Antimicrobial Agents and Chemotherapy, 2019, 63, .	3.2	23
27	A perspective view on the nanomotion detection of living organisms and its features. Journal of Molecular Recognition, 2020, 33, e2849.	2.1	23
28	Improving Osteoblast Response In Vitro by a Nanostructured Thin Film with Titanium Carbide and Titanium Oxides Clustered around Graphitic Carbon. PLoS ONE, 2016, 11, e0152566.	2.5	21
29	Modelling the pathogenesis of Myotonic Dystrophy type 1 cardiac phenotype through human iPSC-derived cardiomyocytes. Journal of Molecular and Cellular Cardiology, 2018, 118, 95-109.	1.9	21
30	Nanotools and molecular techniques to rapidly identify and fight bacterial infections. Journal of Microbiological Methods, 2017, 138, 72-81.	1.6	20
31	Amyloid single-cell cytotoxicity assays by nanomotion detection. Cell Death Discovery, 2017, 3, 17053.	4.7	20
32	Different membrane modifications revealed by atomic force/lateral force microscopy after doping of human pancreatic cells with Cd, Zn, or Pb. Microscopy Research and Technique, 2007, 70, 912-917.	2.2	19
33	Localization of adhesins on the surface of a pathogenic bacterial envelope through atomic force microscopy. Nanoscale, 2015, 7, 17563-17572.	5.6	19
34	Effects of sedimentation, microgravity, hydrodynamic mixing and airâ€“water interface on Î±-synuclein amyloid formation. Chemical Science, 2020, 11, 3687-3693.	7.4	18
35	Effect of titanium carbide coating by ion plating plasma-assisted deposition on osteoblast response: A chemical, morphological and gene expression investigation. Surface and Coatings Technology, 2010, 204, 2605-2612.	4.8	16
36	A universal fluid cell for the imaging of biological specimens in the atomic force microscope. Microscopy Research and Technique, 2013, 76, 357-363.	2.2	16

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37	Study of ageing effects in aerogel. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 527, 319-328.	1.6	15
38	Insights into the morphological pattern of erythrocytes' aging: Coupling quantitative AFM data to microcalorimetry and Raman spectroscopy. Journal of Molecular Recognition, 2018, 31, e2732.	2.1	15
39	AFM and SNOM characterization of carboxylic acid terminated silicon and silicon nitride surfaces. Surface Science, 2003, 544, 51-57.	1.9	14
40	Implementation of a bimorph-based aperture tapping-SNOM with an incubator to study the evolution of cultured living cells. Journal of Microscopy, 2008, 229, 433-439.	1.8	14
41	Graphitic carbon in a nanostructured titanium oxycarbide thin film to improve implant osseointegration. Materials Science and Engineering C, 2015, 46, 409-416.	7.3	14
42	FC_analysis: a tool for investigating atomic force microscopy maps of force curves. BMC Bioinformatics, 2018, 19, 258.	2.6	14
43	Infrared near-field microscopy with the Vanderbilt free electron laser: overview and perspectives. Infrared Physics and Technology, 2004, 45, 409-416.	2.9	13
44	Morphological characterization of innovative electroconductive polymers in early stages of growth. Surface and Coatings Technology, 2012, 207, 286-292.	4.8	13
45	Environmental Control of Amyloid Polymorphism by Modulation of Hydrodynamic Stress. ACS Nano, 2021, 15, 944-953.	14.6	13
46	Pd layer on cube-textured substrates for MOD-TFA and PLD YBCO coated conductors. Superconductor Science and Technology, 2008, 21, 015003.	3.5	11
47	Detection of Nanostructured Metal in Meteorites: Implications for the Reddening of Asteroids. Astrophysical Journal, 2005, 634, L117-L120.	4.5	10
48	Scanning probe microscopy in material science and biology. Journal Physics D: Applied Physics, 2011, 44, 464008.	2.8	10
49	An Alternative Tapping Scanning Near-Field Optical Microscope Setup Enabling the Study of Biological Systems in Liquid Environment. Japanese Journal of Applied Physics, 2006, 45, 2333-2336.	1.5	8
50	Detected twice for good measure. Nature Nanotechnology, 2014, 9, 959-960.	31.5	8
51	Methods for Atomic Force Microscopy of Biological and Living Specimens. Methods in Molecular Biology, 2018, 1814, 529-539.	0.9	8
52	A new tool to determine the cellular metabolic landscape: nanotechnology to the study of Friedreichâ€™s ataxia. Scientific Reports, 2019, 9, 19282.	3.3	8
53	An inverted/scanning nearâ€field optical microscope for applications in materials science and biology. Physica Status Solidi (B): Basic Research, 2010, 247, 2051-2055.	1.5	7
54	AFM nanoâ€mechanical study of the beating profile of hiPSCâ€derived cardiomyocytes beating bodies WT and DM1. Journal of Molecular Recognition, 2018, 31, e2725.	2.1	6

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55	A Review of the Effect of a Nanostructured Thin Film Formed by Titanium Carbide and Titanium Oxides Clustered around Carbon in Graphitic Form on Osseointegration. Nanomaterials, 2020, 10, 1233.	4.1	6
56	Nanomotion Spectroscopy as a New Approach to Characterize Bacterial Virulence. Microorganisms, 2021, 9, 1545.	3.6	6
57	Measuring Cytoskeleton and Cellular Membrane Mechanical Properties by Atomic Force Microscopy. Methods in Molecular Biology, 2015, 1232, 153-159.	0.9	6
58	IR-SNOM on lithium fluoride films with regular arrays based on colour centres. Physica Status Solidi C: Current Topics in Solid State Physics, 2003, 0, 3075-3080.	0.8	5
59	A novel tapping SNOM: Specifications and performances. Physica Status Solidi (B): Basic Research, 2005, 242, 3070-3074.	1.5	5
60	AFM for diagnosis of nanocrystallization of steels in hardening processes. Journal of Microscopy, 2008, 230, 218-223.	1.8	5
61	Nanostructured TiC Layer is Highly Suitable Surface for Adhesion, Proliferation and Spreading of Cells. Condensed Matter, 2020, 5, 29.	1.8	5
62	An AFM investigation of oligonucleotides anchored on unoxidized crystalline silicon surfaces. New Biotechnology, 2007, 24, 53-58.	2.7	4
63	A multipurpose hybrid conventional/scanning near-field optical microscope for applications in materials science and biology. Measurement Science and Technology, 2010, 21, 045502.	2.6	4
64	Multivariate analysis of mean Raman spectra of erythrocytes for a fast analysis of the biochemical signature of ageing. Talanta, 2021, 221, 121442.	5.5	4
65	Optical superâ€resolution using higher harmonics and different acquisition modes in an aperture tapping SNOM. Physica Status Solidi (B): Basic Research, 2010, 247, 2056-2060.	1.5	3
66	Metalâ€based micro and nanosized pollutant in marine organisms: What can we learn from a combined atomic force microscopy â€scanning electron microscopy study. Journal of Molecular Recognition, 2020, 33, e2851.	2.1	3
67	Optical nanospectroscopy applications in material science. Applied Surface Science, 2004, 234, 374-386.	6.1	2
68	AFM and SNOM characterization of ordinary chondrites: A contribution to solving the problem of asteroid reddening. Physica Status Solidi (B): Basic Research, 2010, 247, 2061-2066.	1.5	2
69	AFM AND SNOM TECHNIQUES AT ISM: AN OVERVIEW. , 2009, , .		0
70	CHARACTERISATION OF POLYANILINE CONDUCTIVE COMPOSITES. , 2001, , .		0
71	AN AFM INVESTIGATION OF OLIGONUCLEOTIDES ANCHORED ON AN UNOXIDIZED CRYSTALLINE SILICON SURFACE. , 2006, , .		0