Enzo Di Fabrizio

List of Publications by Year in descending order

96 papers	4,820 citations	126708 33 h-index	98622 67 g-index
99 all docs	99 docs citations	99 times ranked	7424 citing authors

#	Article	IF	Citations
1	Breaking the diffusion limit with super-hydrophobic delivery of molecules to plasmonic nanofocusing SERS structures. Nature Photonics, 2011, 5, 682-687.	15.6	638
2	Nanoscale chemical mapping using three-dimensional adiabatic compression of surface plasmon polaritons. Nature Nanotechnology, 2010, 5, 67-72.	15.6	352
3	Hot-electron nanoscopy using adiabatic compression of surface plasmons. Nature Nanotechnology, 2013, 8, 845-852.	15.6	239
4	Nano-patterned SERS substrate: Application for protein analysis vs. temperature. Biosensors and Bioelectronics, 2009, 24, 1693-1699.	5.3	220
5	Biofuel powered glucose detection in bodily fluids with an n-type conjugated polymer. Nature Materials, 2020, 19, 456-463.	13.3	187
6	Lipid Droplets: A New Player in Colorectal Cancer Stem Cells Unveiled by Spectroscopic Imaging. Stem Cells, 2015, 33, 35-44.	1.4	185
7	MXenes for Plasmonic Photodetection. Advanced Materials, 2019, 31, e1807658.	11.1	175
8	Fabrication and Applications of Micro/Nanostructured Devices for Tissue Engineering. Nano-Micro Letters, 2017, 9, 1.	14.4	171
9	An Overview of Lipid Droplets in Cancer and Cancer Stem Cells. Stem Cells International, 2017, 2017, 1-17.	1.2	165
10	Ti₃C₂T_x MXene-Activated Fast Gelation of Stretchable and Self-Healing Hydrogels: A Molecular Approach. ACS Nano, 2021, 15, 2698-2706.	7.3	157
11	The Role of Surface Tension in the Crystallization of Metal Halide Perovskites. ACS Energy Letters, 2017, 2, 1782-1788.	8.8	155
12	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
13	Gold Dimer Nanoantenna with Slanted Gap for Tunable LSPR and Improved SERS. Journal of Physical Chemistry C, 2014, 118, 3209-3219.	1.5	92
14	Nanostructured Superhydrophobic Substrates Trigger the Development of 3D Neuronal Networks. Small, 2013, 9, 402-412.	5.2	83
15	Development of 3D PVA scaffolds for cardiac tissue engineering and cell screening applications. RSC Advances, 2019, 9, 4246-4257.	1.7	76
16	Direct Imaging of DNA Fibers: The Visage of Double Helix. Nano Letters, 2012, 12, 6453-6458.	4.5	73
17	Plasmon based biosensor for distinguishing different peptides mutation states. Scientific Reports, 2013, 3, 1792.	1.6	68
18	Water soluble nanoporous nanoparticle for in vivo targeted drug delivery and controlled release in B cells tumor context. Nanoscale, 2010, 2, 2230.	2.8	65

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19	Infrared Optical Properties of Nanoantenna Dimers with Photochemically Narrowed Gaps in the 5 nm Regime. ACS Nano, 2012, 6, 7326-7332.	7.3	65
20	Extremely large extinction efficiency and field enhancement in terahertz resonant dipole nanoantennas. Optics Express, 2011, 19, 26088.	1.7	60
21	Detection of single amino acid mutation in human breast cancer by disordered plasmonic self-similar chain. Science Advances, 2015, 1, e1500487.	4.7	58
22	Surface plasmon polariton compression through radially and linearly polarized source. Optics Letters, 2012, 37, 545.	1.7	51
23	Fractal structure can explain the increased hydrophobicity of nanoporous silicon films. Microelectronic Engineering, 2011, 88, 2537-2540.	1.1	50
24	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
25	Electroless Deposition and Nanolithography Can Control the Formation of Materials at the Nano-Scale for Plasmonic Applications. Sensors, 2014, 14, 6056-6083.	2.1	44
26	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
27	The structure of DNA by direct imaging. Science Advances, 2015, 1, e1500734.	4.7	42
28	Highâ€Performance Monolayer MoS₂ Films at the Wafer Scale by Twoâ€Step Growth. Advanced Functional Materials, 2019, 29, 1901070.	7.8	40
29	Fully analytical description of adiabatic compression in dissipative polaritonic structures. Physical Review B, 2012, 86, .	1.1	38
30	Microfluidic device for continuous single cells analysis via Raman spectroscopy enhanced by integrated plasmonic nanodimers. Optics Express, 2016, 24, A180.	1.7	38
31	Electroless deposition dynamics of silver nanoparticles clusters: A diffusion limited aggregation (DLA) approach. Microelectronic Engineering, 2012, 98, 359-362.	1.1	36
32	An Optimized Table-Top Small-Angle X-ray Scattering Set-up for the Nanoscale Structural Analysis of Soft Matter. Scientific Reports, 2014, 4, 6985.	1.6	36
33	Red-Shift Effects in Surface Enhanced Raman Spectroscopy: Spectral or Intensity Dependence of the Near-Field?. Journal of Physical Chemistry C, 2016, 120, 13675-13683.	1.5	36
34	Optical Micro-Manipulation Using Laguerre-Gaussian Beams. Japanese Journal of Applied Physics, 2005, 44, 5773-5776.	0.8	35
35	A microfluidic device integrating plasmonic nanodevices for Raman spectroscopy analysis on trapped single living cells. Microelectronic Engineering, 2013, 111, 314-319.	1.1	32
36	Proteinâ€“Carbohydrate Complex Reveals Circulating Metastatic Cells in a Microfluidic Assay. Small, 2013, 9, 2152-2161.	5.2	32

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37	A facile in situ microfluidic method for creating multivalent surfaces: toward functional glycomics. Lab on A Chip, 2012, 12, 1500.	3.1	30
38	Reflection-mode TERS on Insulin Amyloid Fibrils with Top-Visual AFM Probes. Plasmonics, 2013, 8, 25-33.	1.8	30
39	Microfluidics & nanotechnology: towards fully integrated analytical devices for the detection of cancer biomarkers. RSC Advances, 2014, 4, 55590-55598.	1.7	30
40	A Fluidic Motherboard for Multiplexed Simultaneous and Modular Detection in Microfluidic Systems for Biological Application. Micro and Nanosystems, 2010, 2, 227-238.	0.3	30
41	Microfluidic Devices Modulate Tumor Cell Line Susceptibility to NK Cell Recognition. Small, 2012, 8, 2886-2894.	5.2	29
42	Networks of neuroblastoma cells on porous silicon substrates reveal a small world topology. Integrative Biology (United Kingdom), 2015, 7, 184-197.	0.6	28
43	Delivery of Brain-Derived Neurotrophic Factor by 3D Biocompatible Polymeric Scaffolds for Neural Tissue Engineering and Neuronal Regeneration. Molecular Neurobiology, 2018, 55, 8788-8798.	1.9	27
44	H ferritin silencing induces protein misfolding in K562 cells: A Raman analysis. Free Radical Biology and Medicine, 2015, 89, 614-623.	1.3	26
45	Photolithography and micromolding techniques for the realization of 3D polycaprolactone scaffolds for tissue engineering applications. Microelectronic Engineering, 2015, 141, 135-139.	1.1	26
46	ROS and Lipid Droplet accumulation induced by high glucose exposure in healthy colon and Colorectal Cancer Stem Cells. Genes and Diseases, 2020, 7, 620-635.	1.5	26
47	Nanoscale reduction of graphene oxide thin films and its characterization. Nanotechnology, 2015, 26, 285301.	1.3	25
48	Cell rolling and adhesion on surfaces in shear flow. A model for an antibody-based microfluidic screening system. Microelectronic Engineering, 2012, 98, 668-671.	1.1	24
49	A microfluidic dialysis device for complex biological mixture SERS analysis. Microelectronic Engineering, 2015, 144, 37-41.	1.1	24
50	Galectin-3 coats the membrane of breast cells and makes a signature of tumours. Molecular BioSystems, 2014, 10, 258-265.	2.9	21
51	Nanomechanical DNA resonators for sensing and structural analysis of DNA-ligand complexes. Nature Communications, 2019, 10, 1690.	5.8	21
52	Lab on a chip automates in vitro cell culturing. Microelectronic Engineering, 2012, 98, 655-658.	1.1	20
53	Microfluidic biofunctionalisation protocols to form multiâ€valent interactions for cell rolling and phenotype modification investigations. Electrophoresis, 2013, 34, 1845-1851.	1.3	20
54	Plasmonic 3D-structures based on silver decorated nanotips for biological sensing. Optics and Lasers in Engineering, 2016, 76, 45-51.	2.0	20

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55	Superhydrophobic lab-on-chip measures secretome protonation state and provides a personalized risk assessment of sporadic tumour. Npj Precision Oncology, 2018, 2, 26.	2.3	20
56	Interplay between electric and magnetic effect in adiabatic polaritonic systems. Optics Express, 2013, 21, 7538.	1.7	19
57	Microtexturing of the Conductive PEDOT:PSS Polymer for Superhydrophobic Organic Electrochemical Transistors. BioMed Research International, 2014, 2014, 1-10.	0.9	19
58	Probing droplets on superhydrophobic surfaces byÂsynchrotron radiation scattering techniques. Journal of Synchrotron Radiation, 2014, 21, 643-653.	1.0	17
59	Cancer Therapy: Folic Acid Functionalized Surface Highlights 5-Methylcytosine-Genomic Content within Circulating Tumor Cells (Small 21/2014). Small, 2014, 10, 4412-4412.	5.2	16
60	A Passive Microfluidic Device for Chemotaxis Studies. Micromachines, 2019, 10, 551.	1.4	16
61	Mitochondrial ribosomal protein S18-2 evokes chromosomal instability and transforms primary rat skin fibroblasts. Oncotarget, 2015, 6, 21016-21028.	0.8	16
62	Experimental Route to Scanning Probe Hotâ€Electron Nanoscopy (HENs) Applied to 2D Material. Advanced Optical Materials, 2017, 5, 1700195.	3.6	15
63	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
64	Directed Growth of Virus Nanofilaments on a Superhydrophobic Surface. ACS Applied Materials & Interfaces, 2015, 7, 12373-12379.	4.0	13
65	Dynamic structure mediates halophilic adaptation of a DNA polymerase from the deepâ€sea brines of the Red Sea. FASEB Journal, 2018, 32, 3346-3360.	0.2	13
66	Relating the rate of growth of metal nanoparticles to cluster size distribution in electroless deposition. Nanoscale Advances, 2019, 1, 228-240.	2.2	13
67	A droplet reactor on a super-hydrophobic surface allows control and characterization of amyloid fibril growth. Communications Biology, 2020, 3, 457.	2.0	13
68	A Disposable Passive Microfluidic Device for Cell Culturing. Biosensors, 2020, 10, 18.	2.3	13
69	Raman study of lysozyme amyloid fibrils suspended on super-hydrophobic surfaces by shear flow. Microelectronic Engineering, 2017, 178, 194-198.	1.1	11
70	Waveguiding and SERS Simplified Raman Spectroscopy on Biological Samples. Biosensors, 2019, 9, 37.	2.3	11
71	Folic Acid Functionalized Surface Highlights 5â€Methylcytosineâ€Genomic Content within Circulating Tumor Cells. Small, 2014, 10, 4324-4331.	5.2	9
72	Imaging and structural studies of DNAâ€“protein complexes and membrane ion channels. Nanoscale, 2017, 9, 2768-2777.	2.8	9

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73	In vitro expansion of tumour cells derived from blood and tumour tissue is useful to redefine personalized treatment in non-small cell lung cancer patients. Journal of Biological Regulators and Homeostatic Agents, 2014, 28, 717-31.	0.7	9
74	Correlative scanning electron and confocal microscopy imaging of labeled cells coated by indium-tin-oxide. Microscopy Research and Technique, 2015, 78, 433-443.	1.2	8
75	Plasmonic Nanowires for Wide Wavelength Range Molecular Sensing. Materials, 2018, 11, 827.	1.3	8
76	Domainâ€Sizeâ€Dependent Residual Stress Governs the Phaseâ€Transition and Photoluminescence Behavior of Methylammonium Lead Iodide. Advanced Functional Materials, 2021, 31, 2008088.	7.8	8
77	Few molecule SERS detection using nanolens based plasmonic nanostructure: application to point mutation detection. RSC Advances, 2016, 6, 107916-107923.	1.7	7
78	Surface enhanced Raman spectroscopy measurements of MCF7 cells adhesion in confined micro-environments. Optics and Lasers in Engineering, 2016, 76, 9-16.	2.0	7
79	Mechanical Stress Downregulates MHC Class I Expression on Human Cancer Cell Membrane. PLoS ONE, 2014, 9, e111758.	1.1	6
80	Electroless formation of silver nanoaggregates: an experimental and molecular dynamics approach. Molecular Physics, 2014, 112, 1375-1388.	0.8	6
81	Clustering of Major Histocompatibility Complex-Class I Molecules in Healthy and Cancer Colon Cells Revealed from Their Nanomechanical Properties. ACS Nano, 2021, 15, 7500-7512.	7.3	6
82	Micro/Nanopatterned Superhydrophobic Surfaces Fabrication for Biomolecules and Biomaterials Manipulation and Analysis. Micromachines, 2021, 12, 1501.	1.4	5
83	Tip Enhanced Raman Spectroscopy of Rhodamine 6G on nanostructured gold substrate. Optics and Lasers in Engineering, 2016, 76, 52-56.	2.0	4
84	Kinetic Rate Constants of Gold Nanoparticle Deposition on Silicon. Langmuir, 2019, 35, 14258-14265.	1.6	4
85	Microfluidics for 3D Cell and Tissue Cultures: Microfabricative and Ethical Aspects Updates. Cells, 2022, 11, 1699.	1.8	4
86	Optofluidics for handling and analysis of single living cells. Optofluidics, Microfluidics and Nanofluidics, 2017, 4, .	0.5	3
87	Confined laminar flow on a super-hydrophobic surface drives the initial stages of tau protein aggregation. Microelectronic Engineering, 2018, 191, 54-59.	1.1	3
88	2D Optoelectronics: Highâ€Performance Monolayer MoS₂ Films at the Wafer Scale by Twoâ€Step Growth (Adv. Funct. Mater. 32/2019). Advanced Functional Materials, 2019, 29, 1970224.	7.8	2
89	Direct Visualization and Identification of Membrane Voltageâ€Gated Sodium Channels from Human iPSCâ€Derived Neurons by Multiple Imaging and Light Enhanced Spectroscopy. Small Methods, 2022, 6, .	4.6	2
90	Direct imaging of polymer filaments pulled from rebounding drops. Soft Matter, 2022, 18, 5097-5105.	1.2	2

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91	Indium-Tin-Oxide (ITO) as Stable and Effective Coating Material for Correlative Confocal and Immuno-Scanning Electron Microscopy Studies. Microscopy and Microanalysis, 2015, 21, 1501-1502.	0.2	1
92	Interdisciplinary nanophotonics. Nanophotonics, 2019, 8, 1443-1445.	2.9	1
93	DNA Studies: Latest Spectroscopic and Structural Approaches. Micromachines, 2021, 12, 1094.	1.4	1
94	Selfâ€sieving DNA over superhydrophobic surfaces: A Raman spectroscopy study. Journal of Raman Spectroscopy, 0, , .	1.2	1
95	The magic of nanoplasmonics: from superhydrophobic and 3D suspended devices for SERS/TERS-like applications to hot-electrons based nanoscopy. , 2014, , .		0
96	Resonant metallic nanostructures for enhanced terahertz spectroscopy. , 2015, , .		0