

# Laura Fumagalli

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

64

papers

2,704

citations

26

h-index

51

g-index

67

ext. papers

3,358

ext. citations

9.6

avg, IF

5.1

L-index

#	Paper	IF	Citations
64	Anomalously low dielectric constant of confined water. <i>Science</i> , <b>2018</b> , 360, 1339-1342	33.3	397
63	Molecular transport through capillaries made with atomic-scale precision. <i>Nature</i> , <b>2016</b> , 538, 222-225	50.4	325
62	Universal shape and pressure inside bubbles appearing in van der Waals heterostructures. <i>Nature Communications</i> , <b>2016</b> , 7, 12587	17.4	175
61	Nanoscale measurement of the dielectric constant of supported lipid bilayers in aqueous solutions with electrostatic force microscopy. <i>Biophysical Journal</i> , <b>2013</b> , 104, 1257-62	2.9	121
60	Direct measurement of the dielectric polarization properties of DNA. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2014</b> , 111, E3624-30	11.5	119
59	Dielectric-constant measurement of thin insulating films at low frequency by nanoscale capacitance microscopy. <i>Applied Physics Letters</i> , <b>2007</b> , 91, 243110	3.4	109
58	Quantitative nanoscale dielectric microscopy of single-layer supported biomembranes. <i>Nano Letters</i> , <b>2009</b> , 9, 1604-8	11.5	96
57	Label-free identification of single dielectric nanoparticles and viruses with ultraweak polarization forces. <i>Nature Materials</i> , <b>2012</b> , 11, 808-16	27	92
56	Calibrated complex impedance and permittivity measurements with scanning microwave microscopy. <i>Nanotechnology</i> , <b>2014</b> , 25, 145703	3.4	87
55	Nanoscale capacitance microscopy of thin dielectric films. <i>Journal of Applied Physics</i> , <b>2008</b> , 104, 024315	2.5	74
54	Quantifying the dielectric constant of thick insulators using electrostatic force microscopy. <i>Applied Physics Letters</i> , <b>2010</b> , 96, 183107	3.4	72
53	Exfoliation of natural van der Waals heterostructures to a single unit cell thickness. <i>Nature Communications</i> , <b>2017</b> , 8, 14410	17.4	66
52	Nanoscale capacitance imaging with attofarad resolution using ac current sensing atomic force microscopy. <i>Nanotechnology</i> , <b>2006</b> , 17, 4581-7	3.4	63
51	Atomic layer deposited Al <sub>2</sub> O <sub>3</sub> as a capping layer for polymer based transistors. <i>Organic Electronics</i> , <b>2007</b> , 8, 407-414	3.5	62
50	Capillary condensation under atomic-scale confinement. <i>Nature</i> , <b>2020</b> , 588, 250-253	50.4	59
49	Quantitative dielectric constant measurement of thin films by DC electrostatic force microscopy. <i>Nanotechnology</i> , <b>2009</b> , 20, 395702	3.4	59
48	Nanoscale Electric Permittivity of Single Bacterial Cells at Gigahertz Frequencies by Scanning Microwave Microscopy. <i>ACS Nano</i> , <b>2016</b> , 10, 280-8	16.7	55

47	Quantifying the dielectric constant of thick insulators by electrostatic force microscopy: effects of the microscopic parts of the probe. <i>Nanotechnology</i> , <b>2012</b> , 23, 205703	3.4	55
46	Electric polarization properties of single bacteria measured with electrostatic force microscopy. <i>ACS Nano</i> , <b>2014</b> , 8, 9843-9	16.7	46
45	Piezoelectricity in Monolayer Hexagonal Boron Nitride. <i>Advanced Materials</i> , <b>2020</b> , 32, e1905504	24	46
44	Finite-size effects and analytical modeling of electrostatic force microscopy applied to dielectric films. <i>Nanotechnology</i> , <b>2014</b> , 25, 255702	3.4	38
43	Advances in the production, immobilization, and electrical characterization of olfactory receptors for olfactory nanobiosensor development. <i>Sensors and Actuators B: Chemical</i> , <b>2006</b> , 116, 66-71	8.5	37
42	Charge-polarized interfacial superlattices in marginally twisted hexagonal boron nitride. <i>Nature Communications</i> , <b>2021</b> , 12, 347	17.4	33
41	Electron transport through supported biomembranes at the nanoscale by conductive atomic force microscopy. <i>Nanotechnology</i> , <b>2007</b> , 18, 465503	3.4	32
40	Dynamic electrostatic force microscopy in liquid media. <i>Applied Physics Letters</i> , <b>2012</b> , 101, 213108	3.4	28
39	Nanoscale electrical conductivity of the purple membrane monolayer. <i>Physical Review E</i> , <b>2007</b> , 76, 041919	12.4	26
38	Nanoscale electric polarizability of ultrathin bilayers on insulating substrates by electrostatic force microscopy. <i>Nanoscale</i> , <b>2015</b> , 7, 18327-36	7.7	25
37	CMOS fully compatible microwave detector based on MOSFET operating in resistive regime. <i>IEEE Microwave and Wireless Components Letters</i> , <b>2005</b> , 15, 445-447	2.6	20
36	Theory of amplitude modulated electrostatic force microscopy for dielectric measurements in liquids at MHz frequencies. <i>Nanotechnology</i> , <b>2013</b> , 24, 415709	3.4	19
35	Internal Hydration Properties of Single Bacterial Endospores Probed by Electrostatic Force Microscopy. <i>ACS Nano</i> , <b>2016</b> , 10, 11327-11336	16.7	18
34	Ultrathin spin-coated dioleoylphosphatidylcholine lipid layers in dry conditions: a combined atomic force microscopy and nanomechanical study. <i>Langmuir</i> , <b>2011</b> , 27, 13165-72	4	17
33	Nanobiosensors based on individual olfactory receptors. <i>Analog Integrated Circuits and Signal Processing</i> , <b>2008</b> , 57, 197-203	1.2	16
32	Nondestructive thickness measurement of biological layers at the nanoscale by simultaneous topography and capacitance imaging. <i>Applied Physics Letters</i> , <b>2007</b> , 91, 063111	3.4	16
31	Quantitative electrostatic force microscopy with sharp silicon tips. <i>Nanotechnology</i> , <b>2014</b> , 25, 495701	3.4	15
30	Nanoscale dielectric microscopy of non-planar samples by lift-mode electrostatic force microscopy. <i>Nanotechnology</i> , <b>2016</b> , 27, 405706	3.4	15

29	Directing polypyrrole growth by chemical micropatterns: A study of high-throughput well-ordered arrays of conductive 3D microrings. <i>Sensors and Actuators B: Chemical</i> , <b>2013</b> , 177, 1003-1009	8.5	14
28	Structural and nanomechanical effects of cholesterol in binary and ternary spin-coated single lipid bilayers in dry conditions. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2014</b> , 116, 295-302	6	13
27	Suitability of 3,4-dialkyl substitution in molecular crystal based on thiophene-fluorenone for organic field effect transistors. <i>Synthetic Metals</i> , <b>2009</b> , 159, 513-517	3.6	12
26	Emergence of Highly Linearly Polarized Interlayer Exciton Emission in MoSe/WSe Heterobilayers with Transfer-Induced Layer Corrugation. <i>ACS Nano</i> , <b>2020</b> , 14, 11110-11119	16.7	12
25	Direct mapping of the electric permittivity of heterogeneous non-planar thin films at gigahertz frequencies by scanning microwave microscopy. <i>Physical Chemistry Chemical Physics</i> , <b>2017</b> , 19, 3884-3893	3.6	11
24	dc modulation in field-effect transistors operating under microwave irradiation for quantum readout. <i>Journal of Applied Physics</i> , <b>2005</b> , 98, 044505	2.5	10
23	Nanoscale Mapping of the Conductivity and Interfacial Capacitance of an Electrolyte-Gated Organic Field-Effect Transistor under Operation. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2008032	15.6	10
22	Dielectric constant of flagellin proteins measured by scanning dielectric microscopy. <i>Nanoscale</i> , <b>2018</b> , 10, 19188-19194	7.7	10
21	Van der Waals interaction affects wrinkle formation in two-dimensional materials. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2021</b> , 118,	11.5	9
20	Efficient long-range conduction in cable bacteria through nickel protein wires. <i>Nature Communications</i> , <b>2021</b> , 12, 3996	17.4	9
19	Quantification of the dielectric constant of single non-spherical nanoparticles from polarization forces: eccentricity effects. <i>Nanotechnology</i> , <b>2013</b> , 24, 505713	3.4	7
18	Cholesterol Effect on the Specific Capacitance of Submicrometric DOPC Bilayer Patches Measured by in-Liquid Scanning Dielectric Microscopy. <i>Langmuir</i> , <b>2020</b> , 36, 12963-12972	4	7
17	Optical visualization of ultrathin mica flakes on semitransparent gold substrates. <i>Nanoscale Research Letters</i> , <b>2013</b> , 8, 305	5	6
16	Mapping the capacitance of self-assembled monolayers at metal/electrolyte interfaces at the nanoscale by in-liquid scanning dielectric microscopy. <i>Nanoscale</i> , <b>2020</b> , 12, 20658-20668	7.7	6
15	Dielectric properties and lamellarity of single liposomes measured by in-liquid scanning dielectric microscopy. <i>Journal of Nanobiotechnology</i> , <b>2021</b> , 19, 167	9.4	4
14	Depth mapping of metallic nanowire polymer nanocomposites by scanning dielectric microscopy. <i>Nanoscale</i> , <b>2021</b> , 13, 10116-10126	7.7	4
13	Efficient long-range conduction in cable bacteria through nickel protein wires		3
12	Nanoscale electronic noise measurements. <i>AIP Conference Proceedings</i> , <b>2005</b> ,	0	2

11	Microwave power detector based on a single MOSFET in standard technology <b>2005</b> ,		2
10	Interfacial ferroelectricity in marginally twisted 2D semiconductors		2
9	Probing Electrical Transport Properties at the Nanoscale by Current-Sensing Atomic Force Microscopy <b>2008</b> , 421-450		1
8	Interdigitation in spin-coated lipid layers in air. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2018</b> , 172, 400-406	6	1
7	Batch fabrication of insulated conductive scanning probe microscopy probes with reduced capacitive coupling. <i>Microelectronic Engineering</i> , <b>2014</b> , 119, 44-47	2.5	0
6	Quantitative Dielectric Measurements of Biomembranes and Oxides in Electrolyte Solutions at High Frequencies. <i>Biophysical Journal</i> , <b>2014</b> , 106, 512a	2.9	
5	Correlation technique to reach ultimate resolution in noise measurements <b>2007</b> , 6600, 520		
4	AC and DC electrical imaging of biosamples at the nanoscale by Atomic Force Microscopy. <i>Journal of Physics: Conference Series</i> , <b>2007</b> , 61, 185-189		0.3
3	Noise selection in multielectrode devices by using a correlation spectrum analyzer. <i>Review of Scientific Instruments</i> , <b>2004</b> , 75, 5367-5369		1.7
2	Piezoelectric Materials: Piezoelectricity in Monolayer Hexagonal Boron Nitride (Adv. Mater. 1/2020). <i>Advanced Materials</i> , <b>2020</b> , 32, 2070006		24
1	Spatial Resolution and Capacitive Coupling in the Characterization of Nanowire Nanocomposites by Scanning Dielectric Microscopy. <i>Microscopy and Microanalysis</i> , <b>2021</b> , 27, 1026-1034		0.5