Sonia Antoranz Contera

List of Publications by Year
in descending order

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Version: 2024-02-01

51 papers	1,356 citations	516710 16 h-index	345221 36 g-index
54 all docs	54 docs citations	54 times ranked	2184 citing authors

#	Article	IF	Citations
1	Mapping nanomechanical properties of live cells using multi-harmonic atomic force microscopy. Nature Nanotechnology, 2011, 6, 809-814.	31.5	287
2	Direct mapping of the solidâ€“liquid adhesion energy with subnanometre resolution. Nature Nanotechnology, 2010, 5, 401-405.	31.5	163
3	Dynamics of bacteriorhodopsin 2D crystal observed by high-speed atomic force microscopy. Journal of Structural Biology, 2009, 167, 153-158.	2.8	93
4	Bilayer-Mediated Clustering and Functional Interaction of MscL Channels. Biophysical Journal, 2011, 100, 1252-1260.	0.5	87
5	Multifrequency AFM reveals lipid membrane mechanical properties and the effect of cholesterol in modulating viscoelasticity. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 2658-2663.	7.1	82
6	Role of the Trans-activation Response Element in Dimerization of HIV-1 RNA. Journal of Biological Chemistry, 2004, 279, 22243-22249.	3.4	76
7	Î²-Sheet Structured Î²-Amyloid(1-40) Perturbs Phosphatidylcholine Model Membranes. Journal of Molecular Biology, 2007, 368, 982-997.	4.2	75
8	Differential Stiffness and Lipid Mobility in the Leaflets of Purple Membranes. Biophysical Journal, 2006, 90, 2075-2085.	0.5	56
9	Three strategies to stabilise nearly monodispersed silver nanoparticles in aqueous solution. Nanoscale Research Letters, 2012, 7, 151.	5.7	56
10	Electrophysiological-mechanical coupling in the neuronal membrane and its role in ultrasound neuromodulation and general anaesthesia. Acta Biomaterialia, 2019, 97, 116-140.	8.3	50
11	Biotechnology, nanotechnology and medicine. Emerging Topics in Life Sciences, 2020, 4, 551-554.	2.6	39
12	Electrical conductance and breakdown in individual CNx multiwalled nanotubes. Applied Physics Letters, 2006, 89, 143110.	3.3	33
13	Unfolding and Extraction of a Transmembrane Î±-Helical Peptide: Dynamic Force Spectroscopy and Molecular Dynamics Simulations. Biophysical Journal, 2005, 89, 3129-3140.	0.5	27
14	Effect of intra-membrane C₆₀ fullerenes on the modulus of elasticity and the mechanical resistance of gel and fluid lipid bilayers. Nanoscale, 2015, 7, 17102-17108.	5.6	21
15	Amphiphilic DNA tiles for controlled insertion and 2D assembly on fluid lipid membranes: the effect on mechanical properties. Nanoscale, 2017, 9, 3051-3058.	5.6	19
16	Controlled ionic condensation at the surface of a native extremophilemembrane. Nanoscale, 2010, 2, 222-229.	5.6	18
17	Atomic force microscopy-indentation demonstrates that alginate beads are mechanically stable under cell culture conditions. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 93, 61-69.	3.1	18
18	Doping of carbon nanotubes with nitrogen improves protein coverage whilst retaining correct conformation. Nanotechnology, 2008, 19, 384001.	2.6	16

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19	Effect of Acid Treatment on the Structure and Electrical Properties of Nitrogen-Doped Multiwalled Carbon Nanotubes. Journal of Physical Chemistry C, 2008, 112, 1908-1912.	3.1	13
20	Temperature-dependent phase transitions in zeptoliter volumes of a complex biological membrane. Nanotechnology, 2011, 22, 055709.	2.6	13
21	Nanotribology of Clean and Oxide-Covered Silicon Surfaces Using Atomic Force Microscopy. Japanese Journal of Applied Physics, 2000, 39, 272-274.	1.5	12
22	Imaging the proteins pseudoazurin and apo-pseudoazurin on gold by STM in air: effect of the bias voltage. Ultramicroscopy, 2002, 91, 231-243.	1.9	9
23	Magneto-electrical orientation of lipid-coated graphitic micro-particles in solution. RSC Advances, 2016, 6, 46643-46653.	3.6	9
24	Ambient STM and in situ AFM study of nitrite reductase proteins adsorbed on gold and graphite: influence of the substrate on protein interactions. Ultramicroscopy, 2003, 97, 65-72.	1.9	8
25	Electrostatic and Steric Interactions Determine Bacteriorhodopsin Single-Molecule Biomechanics. Biophysical Journal, 2007, 93, 2024-2037.	0.5	8
26	Lateral coupling and cooperative dynamics in the function of the native membrane protein bacteriorhodopsin. Soft Matter, 2009, 5, 4899.	2.7	8
27	Sub-nanoscale free volume and local elastic modulus of chitosanâ€“carbon nanotube biomimetic nanocomposite scaffold-materials. Journal of Materials Chemistry B, 2015, 3, 3169-3176.	5.8	8
28	A simple mathematical model of allometric exponential growth describes the early three-dimensional growth dynamics of secondary xylem in Arabidopsis roots. Royal Society Open Science, 2019, 6, 190126.	2.4	8
29	STM study of the reactivity of niobium diselenide in air and N2. Applied Surface Science, 1998, 130-132, 623-628.	6.1	6
30	AFM nanoindentation reveals decrease of elastic modulus of lipid bilayers near freezing point of water. Scientific Reports, 2019, 9, 19473.	3.3	6
31	Polymeric microellipsoids with programmed magnetic anisotropy for controlled rotation using low (â‰ˆ10 mT) magnetic fields. Applied Materials Today, 2020, 18, 100511.	4.3	6
32	How to probe the spin contribution to momentum relaxation in topological insulators. Nature Communications, 2018, 9, 56.	12.8	5
33	Mapping cellular nanoscale viscoelasticity and relaxation times relevant to growth of living Arabidopsis thaliana plants using multifrequency AFM. Acta Biomaterialia, 2021, 121, 371-382.	8.3	5
34	Scanning Tunneling Microscopy Study of the Misfit Layer Compounds (LaSe)xNbSe2and (PbSe)xNbSe2. Japanese Journal of Applied Physics, 1998, 37, 6157-6160.	1.5	3
35	Scanning Tunnelling Microscopy Images of the Copper-Containing Amine Oxidase from Arthrobacter Globiformis in the Holo and Apo Forms Adsorbed on Gold under Ambient Conditions. Japanese Journal of Applied Physics, 2002, 41, 3916-3921.	1.5	3
36	Lipid-Modulated Assembly of Magnetized Iron-Filled Carbon Nanotubes in Millimeter-Scale Structures. Japanese Journal of Applied Physics, 2007, 46, 2799-2805.	1.5	3

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37	Formation of nano-pyramids of layered materials with AFM. Ultramicroscopy, 2000, 82, 165-170.	1.9	2
38	Communication is central to the mission of science. Nature Reviews Materials, 2021, 6, 377-378.	48.7	2
39	Nanotubes As Drug Delivery Systems For Prokaryotic And Eukaryotic Cells. Biophysical Journal, 2009, 96, 51a.	0.5	1
40	Reconfigurable Tâ€junction DNA Origami. Angewandte Chemie - International Edition, 2020, 59, 15942-15946.	13.8	1
41	Mesoscopic scanning tunneling and atomic force microscopy study of the misfit-layer compounds (LaSe)xNbSe2 and (PbSe)xNbSe2. Surface Science, 1999, 441, 384-390.	1.9	0
42	Atomic surface characterisation and modification of the layered compounds Bi2Se3, Bi1.9Sb0.1Se3 and Bi1.6Sb0.4Se3. Ultramicroscopy, 2001, 86, 55-61.	1.9	0
43	2P532 High-resolution dynamic imaging of membrane proteins by high-speed AFM(52. Bio-imaging,Poster) Tj ETQq1 1 0.784314 rgBT	0.1	0
44	DNA Conformation and Biomolecular Motors: New Nanomedicine Research Targets. Biophysical Journal, 2009, 96, 345a.	0.5	0
45	Clustering and Functional Interaction of MscL Channels. Biophysical Journal, 2010, 98, 324a.	0.5	0
46	Designer cantilevers for even more accurate quantitative measurements of biological systems with multifrequency AFM. Nanotechnology, 2016, 27, 132501.	2.6	0
47	Developing a Single-Molecule Fluorescence Tool to Quantify DNA Damage. Biophysical Journal, 2016, 110, 164a.	0.5	0
48	Reconfigurable Tâ€junction DNA Origami. Angewandte Chemie, 2020, 132, 16076-16080.	2.0	0
49	Bionanotechnology with Membrane Proteins: Mechanics and Electronics. , 2005, , .		0
50	Membranes as Self-Assembling Coating of Solid State Device Components: Integration of Submicron Electrical Circuitry with Biological Systems. , 2006, , .		0
51	Biosensing with CNx multi-wall carbon nanotubes. , 2006, , .		0