Sergio Santos

List of Publications by Year
in descending order

48 papers	1,013 citations	361296 20 h-index	454834 30 g-index
48 all docs	48 docs citations	48 times ranked	858 citing authors

#	Article	IF	Citations
1	Uncovering Contributing Factors to Interruptions in the Power Grid: An Arctic Case. Energies, 2022, 15, 305.	1.6	5
2	Advances in dynamic AFM: From nanoscale energy dissipation to material properties in the nanoscale. Journal of Applied Physics, 2021, 129, .	1.1	10
3	Investigating the Ubiquitous Presence of Nanometric Water Films on Surfaces. Journal of Physical Chemistry C, 2021, 125, 15759-15772.	1.5	4
4	Hydration Dynamics and the Future of Small-Amplitude AFM Imaging in Air. Molecules, 2021, 26, 7083.	1.7	2
5	Rapid discrimination of chemically distinctive surface terminations in 2D material based heterostructures by direct van der Waals identification. Review of Scientific Instruments, 2020, 91, 023907.	0.6	7
6	Explaining doping in material research (Hf substitution in ZnO films) by directly quantifying the van der Waals force. Physical Chemistry Chemical Physics, 2020, 22, 4130-4137.	1.3	5
7	Machine learning assisted quantification of graphitic surfaces exposure to defined environments. Applied Physics Letters, 2019, 114, .	1.5	10
8	Direct Measurement of the Magnitude of the van der Waals Interaction of Single and Multilayer Graphene. Langmuir, 2018, 34, 12335-12343.	1.6	33
9	Multifrequency AFM: from origins to convergence. Nanoscale, 2017, 9, 5038-5043.	2.8	37
10	Imaging Water Thin Films in Ambient Conditions Using Atomic Force Microscopy. Materials, 2016, 9, 182.	1.3	24
11	Rapid quantitative chemical mapping of surfaces with sub-2 nm resolution. Nanoscale, 2016, 8, 9688-9694.	2.8	23
12	Systematic Multidimensional Quantification of Nanoscale Systems From Bimodal Atomic Force Microscopy Data. ACS Nano, 2016, 10, 6265-6272.	7.3	39
13	The Mendeleevâ€"Meyer force project. Nanoscale, 2016, 8, 17400-17406.	2.8	9
14	Multifrequency Force Microscopy of Helical Protein Assembly on a Virus. Scientific Reports, 2016, 6, 21899.	1.6	13
15	Reconstruction of height of sub-nanometer steps with bimodal atomic force microscopy. Nanotechnology, 2016, 27, 075701.	1.3	11
16	Capillary and van der Waals interactions on CaF₂ crystals from amplitude modulation AFM force reconstruction profiles under ambient conditions. Beilstein Journal of Nanotechnology, 2015, 6, 809-819.	1.5	8
17	Revealing Water Films Structure from Force Reconstruction in Dynamic AFM. Journal of Physical Chemistry C, 2015, 119, 8258-8265.	1.5	29
18	The power laws of nanoscale forces under ambient conditions. Chemical Communications, 2015, 51, 17619-17622.	2.2	10

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19	General interpretation and theory of apparent height in dynamic atomic force microscopy. RSC Advances, 2015, 5, 80069-80075.	1.7	7
20	Unlocking higher harmonics in atomic force microscopy with gentle interactions. Beilstein Journal of Nanotechnology, 2014, 5, 268-277.	1.5	14
21	Energy transfer between eigenmodes in multimodal atomic force microscopy. Nanotechnology, 2014, 25, 475701.	1.3	25
22	Phase contrast and operation regimes in multifrequency atomic force microscopy. Applied Physics Letters, 2014, 104, 143109.	1.5	26
23	DNA G-segment bending is not the sole determinant of topology simplification by type II DNA topoisomerases. Scientific Reports, 2014, 4, 6158.	1.6	19
24	Heterogeneous Dissipation and Size Dependencies of Dissipative Processes in Nanoscale Interactions. Langmuir, 2013, 29, 2200-2206.	1.6	11
25	The aging of a surface and the evolution of conservative and dissipative nanoscale interactions. Journal of Chemical Physics, 2013, 139, 084708.	1.2	24
26	Minimal Invasiveness and Spectroscopy-Like Footprints for the Characterization of Heterogeneous Nanoscale Wetting in Ambient Conditions. Journal of Physical Chemistry C, 2013, 117, 20819-20825.	1.5	27
27	Enhanced sensitivity and contrast with bimodal atomic force microscopy with small and ultra-small amplitudes in ambient conditions. Applied Physics Letters, 2013, 103, .	1.5	17
28	Size Dependent Transitions in Nanoscale Dissipation. Journal of Physical Chemistry C, 2013, 117, 10615-10622.	1.5	28
29	Stability, resolution, and ultra-low wear amplitude modulation atomic force microscopy of DNA: Small amplitude small set-point imaging. Applied Physics Letters, 2013, 103, .	1.5	35
30	Disentangling viscosity and hysteretic dissipative components in dynamic nanoscale interactions. Journal Physics D: Applied Physics, 2012, 45, 012002.	1.3	12
31	Quantification of dissipation and deformation in ambient atomic force microscopy. New Journal of Physics, 2012, 14, 073044.	1.2	9
32	The additive effect of harmonics on conservative and dissipative interactions. Journal of Applied Physics, 2012, 112, 124901.	1.1	10
33	A method to provide rapid in situ determination of tip radius in dynamic atomic force microscopy. Review of Scientific Instruments, 2012, 83, 043707.	0.6	81
34	Quantifying dissipative contributions in nanoscale interactions. Nanoscale, 2012, 4, 792-800.	2.8	27
35	Spatial horizons in amplitude and frequency modulation atomic force microscopy. Nanoscale, 2012, 4, 2463.	2.8	7
36	Nanoscale Capillary Interactions in Dynamic Atomic Force Microscopy. Journal of Physical Chemistry C, 2012, 116, 7757-7766.	1.5	42

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37	Investigation of Nanoscale Interactions by Means of Subharmonic Excitation. Journal of Physical Chemistry Letters, 2012, 3, 2125-2129.	2.1	9
38	Hydrophilicity of a Single DNA Molecule. Journal of Physical Chemistry C, 2012, 116, 2807-2818.	1.5	20
39	Energy dissipation in the presence of sub-harmonic excitation in dynamic atomic force microscopy. Europhysics Letters, 2012, 99, 56002.	0.7	8
40	The effects of adsorbed water layers on the apparent height of nanostructures in ambient amplitude modulation atomic force microscopy. Journal of Chemical Physics, 2012, 137, 044201.	1.2	16
41	Energy dissipation distributions and dissipative atomic processes in amplitude modulation atomic force microscopy. Nanotechnology, 2012, 23, 125401.	1.3	12
42	The Intrinsic Resolution Limit in the Atomic Force Microscope: Implications for Heights of Nano-Scale Features. PLoS ONE, 2011, 6, e23821.	1.1	80
43	How localized are energy dissipation processes in nanoscale interactions?. Nanotechnology, 2011, 22, 345401.	1.3	28
44	Measuring the true height of water films on surfaces. Nanotechnology, 2011, 22, 465705.	1.3	54
45	Subharmonic excitation in amplitude modulation atomic force microscopy in the presence of adsorbed water layers. Journal of Applied Physics, 2011, 110, .	1.1	19
46	Energy dissipation in a dynamic nanoscale contact. Applied Physics Letters, 2011, 98, .	1.5	25
47	High Resolution Imaging of Immunoglobulin G Antibodies and Other Biomolecules Using Amplitude Modulation Atomic Force Microscopy in Air. Methods in Molecular Biology, 2011, 736, 61-79.	0.4	3
48	Bi-stability of amplitude modulation AFM in air: deterministic and stochastic outcomes for imaging biomolecular systems. Nanotechnology, 2010, 21, 225710.	1.3	39