Renato Buzio

List of Publications by Year in descending order

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64 papers	1,296 citations	394421 19 h-index	361022 35 g-index
64 all docs	64 docs citations	64 times ranked	1584 citing authors

#	Article	IF	Citations
1	T c = 21 â€, K in epitaxial FeSe0.5Te0.5 thin films with biaxial compressive strain. Applied Physics Letters, 2010, 96, .	3.3	189
2	The contact mechanics of fractal surfaces. Nature Materials, 2003, 2, 233-236.	27.5	102
3	High quality epitaxial FeSe_{0.5}Te_{0.5}thin films grown on SrTiO₃substrates by pulsed laser deposition. Superconductor Science and Technology, 2009, 22, 105007.	3.5	68
4	Ion beam erosion of amorphous materials: evolution of surface morphology. Nuclear Instruments & Methods in Physics Research B, 2005, 230, 551-554.	1.4	58
5	Self-affine properties of cluster-assembled carbon thin films. Surface Science, 2000, 444, L1-L6.	1.9	57
6	Nanocrystal Formation and Faceting Instability in Al(110) Homoepitaxy:TrueUpward Adatom Diffusion at Step Edges and Island Corners. Physical Review Letters, 2003, 91, 016102.	7.8	55
7	Giant frictional dissipation peaks and charge-density-wave slips at the NbSe2 surface. Nature Materials, 2014, 13, 173-177.	27.5	52
8	Tuning of the superconducting properties of FeSe_{0.5}Te_{0.5}thin films through the substrate effect. Superconductor Science and Technology, 2012, 25, 084022.	3.5	48
9	Structural Depinning of Ne Monolayers on Pb atT<6.5â€‰â€‰K. Physical Review Letters, 2006, 96, 216101.	7.8	41
10	Modulation of resistance switching in Au/Nb:SrTiO3 Schottky junctions by ambient oxygen. Applied Physics Letters, 2012, 101, 243505.	3.3	40
11	Strong vortex pinning in FeSe0.5Te0.5 epitaxial thin film. Applied Physics Letters, 2012, 100, .	3.3	37
12	Contact mechanics and friction of fractal surfaces probed by atomic force microscopy. Wear, 2003, 254, 917-923.	3.1	33
13	Deformation and Adhesion of Elastomer Poly(dimethylsiloxane) Colloidal AFM Probes. Langmuir, 2007, 23, 9293-9302.	3.5	33
14	Friction force microscopy investigation of nanostructured carbon films. Carbon, 2002, 40, 883-890.	10.3	30
15	Nanotechnology Applications in Medicine. Tumori, 2008, 94, 206-215.	1.1	27
16	Optically addressable single molecule magnet behaviour of vacuum-sprayed ultrathin films. Journal of Materials Chemistry, 2008, 18, 109-115.	6.7	26
17	Electron injection barrier and energy-level alignment at the Au/PDI8-CN2 interface via currentâ€“voltage measurements and ballistic emission microscopy. Organic Electronics, 2015, 18, 44-52.	2.6	26
18	Critical Temperature Enhancement by Biaxial Compressive Strain in FeSe0.5Te0.5 Thin Films. Journal of Superconductivity and Novel Magnetism, 2011, 24, 35-41.	1.8	21

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19	Noncontact Atomic Force Microscope Dissipation Reveals a Central Peak ofSrTiO3Structural Phase Transition. Physical Review Letters, 2015, 115, 046101.	7.8	20
20	Ultralow friction of ink-jet printed graphene flakes. Nanoscale, 2017, 9, 7612-7624.	5.6	20
21	Surface analysis of paper documents damaged by foxing. Applied Physics A: Materials Science and Processing, 2004, 79, 383-387.	2.3	18
22	Atomic force microscopy and X-ray photoelectron spectroscopy characterization of low-energy ion sputtered mica. Surface Science, 2007, 601, 2735-2739.	1.9	18
23	Superconducting FeSe_{0.5}Te_{0.5}thin films: a morphological and structural investigation with scanning tunnelling microscopy and x-ray diffraction. Superconductor Science and Technology, 2012, 25, 012001.	3.5	18
24	Electronic Structure of Coreâ€“Shell Metal/Oxide Aluminum Nanoparticles. Journal of Physical Chemistry C, 2015, 119, 26719-26725.	3.1	16
25	Ballistic Transport at the Nanometric Inhomogeneities in Au/Nb:SrTiO₃ Resistive Switches. Advanced Materials Interfaces, 2014, 1, 1300057.	3.7	14
26	Friction laws for lubricated nanocontacts. Journal of Chemical Physics, 2006, 125, 094708.	3.0	12
27	Low-temperature static friction of N₂monolayers on Pb(111). Journal of Physics Condensed Matter, 2007, 19, 305013.	1.8	12
28	Fabrication of stable nanopatterns on metals. Applied Physics Letters, 2002, 81, 2632-2634.	3.3	11
29	Broadband plasmonic response of self-organized aluminium nanowire arrays. Journal Physics D: Applied Physics, 2015, 48, 184003.	2.8	11
30	Subnanometer Resolution and Enhanced Friction Contrast at the Surface of Perylene Diimide PDI8-CN₂ Thin Films in Ambient Conditions. Langmuir, 2018, 34, 3207-3214.	3.5	11
31	Magneticâ€Field Tunable Intertwined Checkerboard Charge Order and Nematicity in the Surface Layer of Sr₂RuO₄. Advanced Materials, 2021, 33, e2100593.	21.0	11
32	Dense arrays of Co nanocrystals epitaxially grown on ion-patterned Cu(110) substrates. Applied Physics Letters, 2005, 86, 141906.	3.3	10
33	Benchmarking Î²â€Ga 2 O 3 Schottky Diodes by Nanoscale Ballistic Electron Emission Microscopy. Advanced Electronic Materials, 2020, 6, 1901151.	5.1	10
34	Nanotechnology applications in medicine. Tumori, 2008, 94, 206-15.	1.1	10
35	Substrate temperature dependence of the structure of polythiophene thin films obtained by Matrix Assisted Pulsed Laser Evaporation (MAPLE). EPJ Applied Physics, 2009, 48, 10505.	0.7	9
36	In situ investigation of the first stages of growth of cluster-assembled carbon films by scanning tunnelling microscopy. Surface Science, 2002, 513, 381-388.	1.9	8

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37	Nanotribology of cluster assembled carbon films. Wear, 2003, 254, 981-987.	3.1	8
38	Experimental Investigation of the Contact Mechanics of Rough Fractal Surfaces. IEEE Transactions on Nanobioscience, 2004, 3, 27-31.	3.3	8
39	Interfacial stiffness and adhesion of randomly rough contacts probed by elastomer colloidal AFM probes. Journal of Physics Condensed Matter, 2008, 20, 354014.	1.8	8
40	Fabrication and electromechanical actuation of epitaxial SrTiO3(0 0 1) microcantilevers. Journal of Micromechanics and Microengineering, 2013, 23, 035031.	2.6	7
41	Graphite superlubricity enabled by triboinduced nanocontacts. Carbon, 2021, 184, 875-890.	10.3	7
42	A novel approach for the investigation of mesoscopic contact mechanics. Thin Solid Films, 2003, 428, 111-114.	1.8	6
43	Fast three-dimensional nanoscale metrology in dual-beam FIBâ€“SEM instrumentation. Ultramicroscopy, 2009, 109, 1338-1342.	1.9	6
44	Label-free, atomic force microscopy-based mapping of DNA intrinsic curvature for the nanoscale comparative analysis of bent duplexes. Nucleic Acids Research, 2012, 40, e84-e84.	14.5	6
45	Potentiality for Low Temperatureâ€"High Field Application of Iron Chalcogenide Thin Films. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-5.	1.7	6
46	Ballistic electron and photocurrent transport in Au/organic/Si(001) diodes with PDI8-CN2 interlayers. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2016, 34, 041212.	1.2	6
47	Nanostructuring polymers by soft lithography templates realized via ion sputtering. Nanotechnology, 2005, 16, 2714-2717.	2.6	5
48	Morphological characterization and scaling behaviour of WC coatings deposited by HVOF thermal spray. Surface and Coatings Technology, 2006, 200, 6430-6433.	4.8	5
49	Atomic-scale distortions and temperature-dependent large pseudogap in thin films of the parent iron-chalcogenide superconductor Fe_{1+y}Te. Journal of Physics Condensed Matter, 2017, 29, 485002.	1.8	5
50	Temperature- and doping-dependent nanoscale Schottky barrier height at the Au/Nb:SrTiO3 interface. Applied Physics Letters, 2018, 113, 141604.	3.3	5
51	Architecture for the semi-automatic fabrication and assembly of thin-film based dielectric elastomer actuators. Proceedings of SPIE, 2008, , .	0.8	4
52	An automatic method for atom identification in scanning tunnelling microscopy images of Feâ€chalcogenide superconductors. Journal of Microscopy, 2015, 260, 302-311.	1.8	4
53	Accurate ab initio determination of ballistic electron emission spectroscopy: Application to Au/Ge. Physical Review B, 2018, 98, .	3.2	4
54	Macroscopic Versus Microscopic Schottky Barrier Determination at (Au/Pt)/Ge(100): Interfacial Local Modulation. ACS Applied Materials & Interfaces, 2020, 12, 28894-28902.	8.0	4

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55	Temperature dependence of rippled corrugations induced on the Rh(110) surface via ion sputtering. Nuclear Instruments & Methods in Physics Research B, 2005, 230, 555-559.	1.4	3
56	Morphological and Tribological Characterization of Rough Surfaces by Atomic Force Microscopy. Nanoscience and Technology, 2006, , 261-298.	1.5	3
57	Probing the Role of Nanoroughness in Contact Mechanics by Atomic Force Microscopy. Advances in Science and Technology, 2006, 51, 90.	0.2	2
58	Theoretical bases of identification of solid surface fractality. Journal of Friction and Wear, 2011, 32, 333-337.	0.5	1
59	Symmetric curvature descriptors for label-free analysis of DNA. Scientific Reports, 2015, 4, 6459.	3.3	1
60	Investigation of the mesoscopic contact mechanics of sexithienyl thin films. , 0, , .		0
61	Nanoindentations on SrTiO3 Substrates: Effects of Fractal Roughness on Contact Mechanics. , 2003, , 129.		0
62	Exploring Mesoscale Contact Mechanics by Atomic Force Microscopy. Nanoscience and Technology, 2012, , 55-75.	1.5	0
63	All-oxide microcantilevers: Perspectives for device applications. , 2013, , .		0
64	The Role of Nanoroughness in Contact Mechanics. Nanoscience and Technology, 2007, , 345-359.	1.5	0