

# 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  | Magnetic Field Tunable Intertwined Checkerboard Charge Order and Nematicity in the Surface Layer of $\text{SrRuO}_4$ . <i>Advanced Materials</i> , 2021, 33, e2100593.   | 21.0 | 11        |
| 2  | Graphite superlubricity enabled by triboinduced nanocontacts. <i>Carbon</i> , 2021, 184, 875-890.  | 10.3 | 7         |
| 3  | Macroscopic Versus Microscopic Schottky Barrier Determination at $(\text{Au}/\text{Pt})/\text{Ge}(100)$ : Interfacial Local Modulation. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 28894-28902.             | 8.0  | 4         |
| 4  | Benchmarking $\text{Ga}_2\text{O}_3$ Schottky Diodes by Nanoscale Ballistic Electron Emission Microscopy. <i>Advanced Electronic Materials</i> , 2020, 6, 1901151.   | 5.1  | 10        |
| 5  | Subnanometer Resolution and Enhanced Friction Contrast at the Surface of Perylene Diimide $\text{PDI8-CN}_2$ Thin Films in Ambient Conditions. <i>Langmuir</i> , 2018, 34, 3207-3214.                                      | 3.5  | 11        |
| 6  | Accurate ab initio determination of ballistic electron emission spectroscopy: Application to Au/Ge. <i>Physical Review B</i> , 2018, 98, .   | 3.2  | 4         |
| 7  | Temperature- and doping-dependent nanoscale Schottky barrier height at the Au/Nb:SrTiO <sub>3</sub> interface. <i>Applied Physics Letters</i> , 2018, 113, 141604.   | 3.3  | 5         |
| 8  | Ultralow friction of ink-jet printed graphene flakes. <i>Nanoscale</i> , 2017, 9, 7612-7624.   | 5.6  | 20        |
| 9  | Atomic-scale distortions and temperature-dependent large pseudogap in thin films of the parent iron-chalcogenide superconductor $\text{FeTe}$ . <i>Journal of Physics Condensed Matter</i> , 2017, 29, 485002.             | 1.8  | 5         |
| 10 | Ballistic electron and photocurrent transport in Au/organic/Si(001) diodes with $\text{PDI8-CN}_2$ interlayers. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2016, 34, 041212. | 1.2  | 6         |
| 11 | Noncontact Atomic Force Microscope Dissipation Reveals a Central Peak of SrTiO <sub>3</sub> Structural Phase Transition. <i>Physical Review Letters</i> , 2015, 115, 046101.   | 7.8  | 20        |
| 12 | Symmetric curvature descriptors for label-free analysis of DNA. <i>Scientific Reports</i> , 2015, 4, 6459.   | 3.3  | 1         |
| 13 | An automatic method for atom identification in scanning tunnelling microscopy images of Fe-chalcogenide superconductors. <i>Journal of Microscopy</i> , 2015, 260, 302-311.  | 1.8  | 4         |
| 14 | Electronic Structure of Core-Shell Metal/Oxide Aluminum Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2015, 119, 26719-26725.  | 3.1  | 16        |
| 15 | Electron injection barrier and energy-level alignment at the Au/ $\text{PDI8-CN}_2$ interface via current-voltage measurements and ballistic emission microscopy. <i>Organic Electronics</i> , 2015, 18, 44-52.            | 2.6  | 26        |
| 16 | Potentiality for Low Temperature High Field Application of Iron Chalcogenide Thin Films. <i>IEEE Transactions on Applied Superconductivity</i> , 2015, 25, 1-5.  | 1.7  | 6         |
| 17 | Broadband plasmonic response of self-organized aluminium nanowire arrays. <i>Journal Physics D: Applied Physics</i> , 2015, 48, 184003.  | 2.8  | 11        |
| 18 | Ballistic Transport at the Nanometric Inhomogeneities in Au/Nb:SrTiO <sub>3</sub> Resistive Switches. <i>Advanced Materials Interfaces</i> , 2014, 1, 1300057.   | 3.7  | 14        |

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|----|--|------|-----------|
| 19 | Giant frictional dissipation peaks and charge-density-wave slips at the NbSe <sub>2</sub> surface. Nature Materials, 2014, 13, 173-177.  | 27.5 | 52        |
| 20 | Fabrication and electromechanical actuation of epitaxial SrTiO <sub>3</sub> (0 0 1) microcantilevers. Journal of Micromechanics and Microengineering, 2013, 23, 035031.  | 2.6  | 7         |
| 21 | All-oxide microcantilevers: Perspectives for device applications. , 2013, , .  |      | 0         |
| 22 | 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         |
| 23 | Modulation of resistance switching in Au/Nb:SrTiO <sub>3</sub> Schottky junctions by ambient oxygen. Applied Physics Letters, 2012, 101, 243505.   | 3.3  | 40        |
| 24 | Superconducting FeSe <sub>0.5</sub> Te <sub>0.5</sub> 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        |
| 25 | Tuning of the superconducting properties of FeSe <sub>0.5</sub> Te <sub>0.5</sub> thin films through the substrate effect. Superconductor Science and Technology, 2012, 25, 084022.  | 3.5  | 48        |
| 26 | Exploring Mesoscale Contact Mechanics by Atomic Force Microscopy. Nanoscience and Technology, 2012, , 55-75.   | 1.5  | 0         |
| 27 | Strong vortex pinning in FeSe <sub>0.5</sub> Te <sub>0.5</sub> epitaxial thin film. Applied Physics Letters, 2012, 100, .  | 3.3  | 37        |
| 28 | Theoretical bases of identification of solid surface fractality. Journal of Friction and Wear, 2011, 32, 333-337.  | 0.5  | 1         |
| 29 | Critical Temperature Enhancement by Biaxial Compressive Strain in FeSe <sub>0.5</sub> Te <sub>0.5</sub> Thin Films. Journal of Superconductivity and Novel Magnetism, 2011, 24, 35-41.   | 1.8  | 21        |
| 30 | T <sub>c</sub> = 21 K in epitaxial FeSe <sub>0.5</sub> Te <sub>0.5</sub> thin films with biaxial compressive strain. Applied Physics Letters, 2010, 96, .  | 3.3  | 189       |
| 31 | High quality epitaxial FeSe <sub>0.5</sub> Te <sub>0.5</sub> thin films grown on SrTiO <sub>3</sub> substrates by pulsed laser deposition. Superconductor Science and Technology, 2009, 22, 105007.                                | 3.5  | 68        |
| 32 | Fast three-dimensional nanoscale metrology in dual-beam FIB-SEM instrumentation. Ultramicroscopy, 2009, 109, 1338-1342.  | 1.9  | 6         |
| 33 | 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         |
| 34 | Optically addressable single molecule magnet behaviour of vacuum-sprayed ultrathin films. Journal of Materials Chemistry, 2008, 18, 109-115.   | 6.7  | 26        |
| 35 | Architecture for the semi-automatic fabrication and assembly of thin-film based dielectric elastomer actuators. Proceedings of SPIE, 2008, , .   | 0.8  | 4         |
| 36 | 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         |

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|----|--|-----|-----------|
| 37 | Nanotechnology Applications in Medicine. Tumori, 2008, 94, 206-215.  | 1.1 | 27        |
| 38 | Nanotechnology applications in medicine. Tumori, 2008, 94, 206-15.   | 1.1 | 10        |
| 39 | Low-temperature static friction of N <sub>2</sub> monolayers on Pb(111). Journal of Physics Condensed Matter, 2007, 19, 305013.  | 1.8 | 12        |
| 40 | Deformation and Adhesion of Elastomer Poly(dimethylsiloxane) Colloidal AFM Probes. Langmuir, 2007, 23, 9293-9302.  | 3.5 | 33        |
| 41 | Atomic force microscopy and X-ray photoelectron spectroscopy characterization of low-energy ion sputtered mica. Surface Science, 2007, 601, 2735-2739.                     | 1.9 | 18        |
| 42 | The Role of Nanoroughness in Contact Mechanics. Nanoscience and Technology, 2007, , 345-359.   | 1.5 | 0         |
| 43 | Morphological and Tribological Characterization of Rough Surfaces by Atomic Force Microscopy. Nanoscience and Technology, 2006, , 261-298.                                 | 1.5 | 3         |
| 44 | Morphological characterization and scaling behaviour of WC coatings deposited by HVOF thermal spray. Surface and Coatings Technology, 2006, 200, 6430-6433.                | 4.8 | 5         |
| 45 | Friction laws for lubricated nanocontacts. Journal of Chemical Physics, 2006, 125, 094708.   | 3.0 | 12        |
| 46 | Probing the Role of Nanoroughness in Contact Mechanics by Atomic Force Microscopy. Advances in Science and Technology, 2006, 51, 90.                                       | 0.2 | 2         |
| 47 | Structural Depinning of Ne Monolayers on Pb at T < 6.5 K. Physical Review Letters, 2006, 96, 216101.   | 7.8 | 41        |
| 48 | Ion beam erosion of amorphous materials: evolution of surface morphology. Nuclear Instruments & Methods in Physics Research B, 2005, 230, 551-554.                         | 1.4 | 58        |
| 49 | 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         |
| 50 | Nanostructuring polymers by soft lithography templates realized via ion sputtering. Nanotechnology, 2005, 16, 2714-2717.   | 2.6 | 5         |
| 51 | Dense arrays of Co nanocrystals epitaxially grown on ion-patterned Cu(110) substrates. Applied Physics Letters, 2005, 86, 141906.  | 3.3 | 10        |
| 52 | Surface analysis of paper documents damaged by foxing. Applied Physics A: Materials Science and Processing, 2004, 79, 383-387.   | 2.3 | 18        |
| 53 | Experimental Investigation of the Contact Mechanics of Rough Fractal Surfaces. IEEE Transactions on Nanobioscience, 2004, 3, 27-31.  | 3.3 | 8         |
| 54 | A novel approach for the investigation of mesoscopic contact mechanics. Thin Solid Films, 2003, 428, 111-114.  | 1.8 | 6         |

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|----|--|------|-----------|
| 55 | Contact mechanics and friction of fractal surfaces probed by atomic force microscopy. <i>Wear</i> , 2003, 254, 917-923.  | 3.1  | 33        |
| 56 | Nanotribology of cluster assembled carbon films. <i>Wear</i> , 2003, 254, 981-987.   | 3.1  | 8         |
| 57 | The contact mechanics of fractal surfaces. <i>Nature Materials</i> , 2003, 2, 233-236.   | 27.5 | 102       |
| 58 | Nanocrystal Formation and Faceting Instability in Al(110) Homoepitaxy: True Upward Adatom Diffusion at Step Edges and Island Corners. <i>Physical Review Letters</i> , 2003, 91, 016102. | 7.8  | 55        |
| 59 | Nanoindentations on SrTiO <sub>3</sub> Substrates: Effects of Fractal Roughness on Contact Mechanics. , 2003, , 129.   |      | 0         |
| 60 | Fabrication of stable nanopatterns on metals. <i>Applied Physics Letters</i> , 2002, 81, 2632-2634.  | 3.3  | 11        |
| 61 | In situ investigation of the first stages of growth of cluster-assembled carbon films by scanning tunnelling microscopy. <i>Surface Science</i> , 2002, 513, 381-388.                    | 1.9  | 8         |
| 62 | Friction force microscopy investigation of nanostructured carbon films. <i>Carbon</i> , 2002, 40, 883-890.   | 10.3 | 30        |
| 63 | Self-affine properties of cluster-assembled carbon thin films. <i>Surface Science</i> , 2000, 444, L1-L6.  | 1.9  | 57        |
| 64 | Investigation of the mesoscopic contact mechanics of sexithienyl thin films. , 0, , .  |      | 0         |