

# Alessandro PodestÀ

## List of Publications by Year in descending order

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114  
papers

4,088  
citations

117571

34  
h-index

133188

59  
g-index

135  
all docs

135  
docs citations

135  
times ranked

5338  
citing authors

#	ARTICLE	IF	CITATIONS
1	Quantitative Characterization of the Influence of the Nanoscale Morphology of Nanostructured Surfaces on Bacterial Adhesion and Biofilm Formation. PLoS ONE, 2011, 6, e25029.	1.1	233
2	The Effect of Surface Nanometre-Scale Morphology on Protein Adsorption. PLoS ONE, 2010, 5, e11862.	1.1	216
3	Standardized Nanomechanical Atomic Force Microscopy Procedure (SNAP) for Measuring Soft and Biological Samples. Scientific Reports, 2017, 7, 5117.	1.6	195
4	Kinetics of Different Processes in Human Insulin Amyloid Formation. Journal of Molecular Biology, 2007, 366, 258-274.	2.0	163
5	Evidence of Extended Solidlike Layering in [Bmim][NTf2] Ionic Liquid Thin Films at Room-Temperature. Journal of Physical Chemistry B, 2009, 113, 6600-6603.	1.2	163
6	Nanostructured TiO <sub>2</sub> Films with 2.0 eV Optical Gap. Advanced Materials, 2005, 17, 1842-1846.	11.1	148
7	Supercapacitors based on nanostructured carbon electrodes grown by cluster-beam deposition. Applied Physics Letters, 1999, 75, 2662-2664.	1.5	141
8	Biocompatibility of cluster-assembled nanostructured TiO <sub>2</sub> with primary and cancer cells. Biomaterials, 2006, 27, 3221-3229.	5.7	130
9	Production and characterization of highly intense and collimated cluster beams by inertial focusing in supersonic expansions. Review of Scientific Instruments, 2001, 72, 2261-2267.	0.6	111
10	Conversion of nanoscale topographical information of cluster-assembled zirconia surfaces into mechanotransductive events promotes neuronal differentiation. Journal of Nanobiotechnology, 2016, 14, 18.	4.2	95
11	Positively Charged Surfaces Increase the Flexibility of DNA. Biophysical Journal, 2005, 89, 2558-2563.	0.2	89
12	Quantitative Control of Protein and Cell Interaction with Nanostructured Surfaces by Cluster Assembling. Accounts of Chemical Research, 2017, 50, 231-239.	7.6	87
13	Mechanotransduction in neuronal cell development and functioning. Biophysical Reviews, 2019, 11, 701-720.	1.5	87
14	The influence of the precursor clusters on the structural and morphological evolution of nanostructured TiO <sub>2</sub> under thermal annealing. Nanotechnology, 2003, 14, 1168-1173.	1.3	83
15	Nanomanufacturing of titania interfaces with controlled structural and functional properties by supersonic cluster beam deposition. Journal of Applied Physics, 2015, 118, .	1.1	81
16	Nanomechanical and topographical imaging of living cells by atomic force microscopy with colloidal probes. Review of Scientific Instruments, 2015, 86, 033705.	0.6	77
17	Insight On Colorectal Carcinoma Infiltration by Studying Perilesional Extracellular Matrix. Scientific Reports, 2016, 6, 22522.	1.6	73
18	The interaction between $\alpha$ 5 $\beta$ 1 integrin and vitronectin triggers ligand-independent adhesion signalling by integrins. EMBO Journal, 2014, 33, 2458-2472.	3.5	72

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19	Scale Invariant Disordered Nanotopography Promotes Hippocampal Neuron Development and Maturation with Involvement of Mechanotransductive Pathways. <i>Frontiers in Cellular Neuroscience</i> , 2016, 10, 267.	1.8	64
20	Cluster beam synthesis of nanostructured thin films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2001, 19, 2025-2033.	0.9	62
21	Cluster beam microfabrication of patterns of three-dimensional nanostructured objects. <i>Applied Physics Letters</i> , 2000, 77, 1059.	1.5	58
22	Cluster-assembled cubic zirconia films with tunable and stable nanoscale morphology against thermal annealing. <i>Journal of Applied Physics</i> , 2016, 120, 055302.	1.1	56
23	Early Events in Insulin Fibrillization Studied by Time-Lapse Atomic Force Microscopy. <i>Biophysical Journal</i> , 2006, 90, 589-597.	0.2	54
24	Nanoscale Roughness and Morphology Affect the IsoElectric Point of Titania Surfaces. <i>PLoS ONE</i> , 2013, 8, e68655.	1.1	49
25	Planar thin film supercapacitor based on cluster-assembled nanostructured carbon and ionic liquid electrolyte. <i>Carbon</i> , 2013, 59, 212-220.	5.4	47
26	Lamellipodial tension, not integrin/ligand binding, is the crucial factor to realise integrin activation and cell migration. <i>European Journal of Cell Biology</i> , 2016, 95, 1-14.	1.6	46
27	Non-ohmic behavior and resistive switching of Au cluster-assembled films beyond the percolation threshold. <i>Nanoscale Advances</i> , 2019, 1, 3119-3130.	2.2	45
28	Direct Microfabrication of Topographical and Chemical Cues for the Guided Growth of Neural Cell Networks on Polyamidoamine Hydrogels. <i>Macromolecular Bioscience</i> , 2010, 10, 842-852.	2.1	43
29	Bottom-up engineering of the surface roughness of nanostructured cubic zirconia to control cell adhesion. <i>Nanotechnology</i> , 2012, 23, 475101.	1.3	43
30	Cluster-Assembled Nanostructured Titanium Oxide Films with Tailored Wettability. <i>Journal of Physical Chemistry C</i> , 2009, 113, 18264-18269.	1.5	42
31	Adhesive-free colloidal probes for nanoscale force measurements: Production and characterization. <i>Review of Scientific Instruments</i> , 2011, 82, 023708.	0.6	42
32	Influence of the fluorine doping on the optical properties of CdS thin films for photovoltaic applications. <i>Thin Solid Films</i> , 2006, 511-512, 448-452.	0.8	41
33	Growth Mechanism of Cluster-Assembled Surfaces: From Submonolayer to Thin-Film Regime. <i>Physical Review Applied</i> , 2018, 9, .	1.5	40
34	Cluster-assembled zirconia substrates promote long-term differentiation and functioning of human islets of Langerhans. <i>Scientific Reports</i> , 2018, 8, 9979.	1.6	37
35	Biofilm formation on nanostructured titanium oxide surfaces and a micro/nanofabrication-based preventive strategy using colloidal lithography. <i>Biofabrication</i> , 2012, 4, 025001.	3.7	35
36	Atomic force microscopy study of DNA deposited on poly l-ornithine-coated mica. <i>Journal of Microscopy</i> , 2004, 215, 236-240.	0.8	34

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37	Patterning of gold-polydimethylsiloxane (Au-PDMS) nanocomposites by supersonic cluster beam implantation. <i>Journal Physics D: Applied Physics</i> , 2014, 47, 015301.	1.3	34
38	Influence of surface morphology on the wettability of cluster-assembled carbon films. <i>Europhysics Letters</i> , 2003, 63, 401-407.	0.7	33
39	Nanometric ionic-liquid films on silica: a joint experimental and computational study. <i>Journal of Physics Condensed Matter</i> , 2009, 21, 424118.	0.7	33
40	Acoustic phonon propagation and elastic properties of cluster-assembled carbon films investigated by Brillouin light scattering. <i>Physical Review B</i> , 2001, 64, .	1.1	29
41	Electronic properties and applications of cluster-assembled carbon films. <i>Journal of Materials Science: Materials in Electronics</i> , 2006, 17, 427-441.	1.1	29
42	Increasing the optical absorption in a-Si thin films by embedding gold nanoparticles. <i>Optical Materials</i> , 2018, 75, 204-210.	1.7	28
43	Biomimetic poly(amidoamine) hydrogels as synthetic materials for cell culture. <i>Journal of Nanobiotechnology</i> , 2008, 6, 14.	4.2	27
44	Tuning the Extent and Depth of Penetration of Flexible Liposomes in Human Skin. <i>Molecular Pharmaceutics</i> , 2017, 14, 1998-2009.	2.3	27
45	Imidazolium-Based Ionic Liquids Affect Morphology and Rigidity of Living Cells: An Atomic Force Microscopy Study. <i>Langmuir</i> , 2018, 34, 12452-12462.	1.6	26
46	Cluster assembling of nanostructured carbon films. <i>Diamond and Related Materials</i> , 2001, 10, 240-247.	1.8	25
47	Adsorption and Stability of Streptavidin on Cluster-Assembled Nanostructured TiO <sub>x</sub> Films. <i>Langmuir</i> , 2008, 24, 11637-11644.	1.6	25
48	Quantitative characterization of the interfacial morphology and bulk porosity of nanoporous cluster-assembled carbon thin films. <i>Applied Surface Science</i> , 2019, 479, 395-402.	3.1	25
49	Ionic liquids under nanoscale confinement. <i>Advances in Physics: X</i> , 2020, 5, 1736949.	1.5	25
50	Distinct extracellular matrix remodeling events precede symptoms of inflammation. <i>Matrix Biology</i> , 2021, 96, 47-68.	1.5	25
51	Large colloidal probes for atomic force microscopy: Fabrication and calibration issues. <i>Journal of Molecular Recognition</i> , 2021, 34, e2879.	1.1	25
52	Interaction of Imidazolium-Based Room-Temperature Ionic Liquids with DOPC Phospholipid Monolayers: Electrochemical Study. <i>Langmuir</i> , 2013, 29, 6573-6581.	1.6	24
53	Interaction of Bacterial Cells with Cluster-Assembled Nanostructured Titania Surfaces: An Atomic Force Microscopy Study. <i>Journal of Nanoscience and Nanotechnology</i> , 2013, 13, 77-85.	0.9	24
54	Surface Confinement Induces the Formation of Solid-Like Insulating Ionic Liquid Nanostructures. <i>Journal of Physical Chemistry C</i> , 2018, 122, 7934-7944.	1.5	23

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55	Direct Characterization of Fluid Lipid Assemblies on Mercury in Electric Fields. ACS Nano, 2014, 8, 3242-3250.	7.3	21
56	Stiffening of DU145 prostate cancer cells driven by actin filaments and microtubule crosstalk conferring resistance to microtubule-targeting drugs. Nanoscale, 2021, 13, 6212-6226.	2.8	21
57	Fractal analysis of sampled profiles: Systematic study. Physical Review E, 2002, 65, 021601.	0.8	20
58	Dynamic light scattering from acoustic modes in single-walled carbon nanotubes. Physical Review B, 2003, 67, .	1.1	20
59	Stretchable nanocomposite electrodes with tunable mechanical properties by supersonic cluster beam implantation in elastomers. Applied Physics Letters, 2015, 106, 121902.	1.5	20
60	First study of humidity sensors based on nanostructured carbon films produced by supersonic cluster beam deposition. Sensors and Actuators B: Chemical, 2004, 100, 173-176.	4.0	19
61	Highly ordered growth of 1,4-quaterthiophene films by seeded supersonic molecular beam deposition: a morphological study. Surface Science, 2000, 464, L673-L680.	0.8	17
62	Nano-indentation of a room-temperature ionic liquid film on silica: a computational experiment. Physical Chemistry Chemical Physics, 2012, 14, 2475.	1.3	17
63	Generation of the low-density liquid phase of carbon by non-thermal melting of fullerite. Europhysics Letters, 2002, 57, 281-287.	0.7	16
64	Nanocomposite TiN films with embedded MoS <sub>2</sub> inorganic fullerenes produced by combining supersonic cluster beam deposition with cathodic arc reactive evaporation. Applied Physics A: Materials Science and Processing, 2007, 90, 101-104.	1.1	14
65	Nanoscale Roughness Affects the Activity of Enzymes Adsorbed on Cluster-Assembled Titania Films. Langmuir, 2014, 30, 5973-5981.	1.6	14
66	Adhesion force spectroscopy with nanostructured colloidal probes reveals nanotopography-dependent early mechanotransductive interactions at the cell membrane level. Nanoscale, 2020, 12, 14708-14723.	2.8	14
67	Neuronal Cells Confinement by Micropatterned Cluster-Assembled Dots with Mechanotransductive Nanotopography. ACS Biomaterials Science and Engineering, 2018, 4, 4062-4075.	2.6	13
68	Solid-Like Ordering of Imidazolium-Based Ionic Liquids at Rough Nanostructured Oxidized Silicon Surfaces. Langmuir, 2019, 35, 11881-11890.	1.6	13
69	Nanoscale electrical properties of cluster-assembled palladium oxide thin films. Physical Review B, 2009, 79, .	1.1	12
70	Electrochemical impedance spectroscopy on nanostructured carbon electrodes grown by supersonic cluster beam deposition. Journal of Nanoparticle Research, 2013, 15, 1.	0.8	12
71	Electrostatic Double-Layer Interaction at the Surface of Rough Cluster-Assembled Films: The Case of Nanostructured Zirconia. Langmuir, 2018, 34, 10230-10242.	1.6	12
72	Nanoconfinement of Ionic Liquid into Porous Carbon Electrodes. Journal of Physical Chemistry C, 2021, 125, 1292-1303.	1.5	12

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73	Force Sensing on Cells and Tissues by Atomic Force Microscopy. <i>Sensors</i> , 2022, 22, 2197.	2.1	12
74	ATP-dependent looping of DNA by ISWI. <i>Journal of Biophotonics</i> , 2008, 1, 280-286.	1.1	11
75	The Incorporation of Ribonucleotides Induces Structural and Conformational Changes in DNA. <i>Biophysical Journal</i> , 2017, 113, 1373-1382.	0.2	11
76	Title is missing!. <i>European Physical Journal B</i> , 2002, 26, 509-514.	0.6	11
77	Nanotribological characterization of industrial polytetrafluorethylene-based coatings by atomic force microscopy. <i>Thin Solid Films</i> , 2002, 419, 154-159.	0.8	10
78	Inelastic light scattering from magnetically aligned single-walled carbon nanotubes and estimate of their two-dimensional Young's modulus. <i>Diamond and Related Materials</i> , 2003, 12, 806-810.	1.8	10
79	A dielectrophoresis-based microdevice coated with nanostructured TiO <sub>2</sub> for separation of particles and cells. <i>Microfluidics and Nanofluidics</i> , 2011, 10, 1211-1221.	1.0	10
80	Ion-gated transistors based on porous and compact TiO <sub>2</sub> films: Effect of Li ions in the gating medium. <i>AIP Advances</i> , 2020, 10, .	0.6	10
81	Quantitative nanofriction characterization of corrugated surfaces by atomic force microscopy. <i>Review of Scientific Instruments</i> , 2004, 75, 1228-1242.	0.6	9
82	An atomic force microscopy study of the effects of surface treatments of diamond films produced by chemical vapor deposition. <i>Diamond and Related Materials</i> , 2006, 15, 1292-1299.	1.8	9
83	Silver nanoparticles from a gas aggregation nanoparticle source for plasmonic efficiency enhancement in a-Si solar cells. <i>Materials Research Express</i> , 2019, 6, 045012.	0.8	8
84	Quantum Confinement in the Spectral Response of n-Doped Germanium Quantum Dots Embedded in an Amorphous Si Layer for Quantum Dot-Based Solar Cells. <i>ACS Applied Nano Materials</i> , 2020, 3, 2813-2821.	2.4	8
85	Nanostructure Determines the Wettability of Gold Surfaces by Ionic Liquid Ultrathin Films. <i>Frontiers in Chemistry</i> , 2021, 9, 619432.	1.8	8
86	Adhesion and Proliferation of Fibroblasts on Cluster-Assembled Nanostructured Carbon Films: The Role of Surface Morphology. <i>Journal of Nanoscience and Nanotechnology</i> , 2006, 6, 3718-3730.	0.9	7
87	Quantitative Investigation by Atomic Force Microscopy of Supported Phospholipid Layers and Nanostructures on Cholesterol-Functionalized Glass Surfaces. <i>Langmuir</i> , 2008, 24, 7830-7841.	1.6	7
88	Probing Nanoscale Interactions on Biocompatible Cluster-Assembled Titanium Oxide Surfaces by Atomic Force Microscopy. <i>Journal of Nanoscience and Nanotechnology</i> , 2011, 11, 4739-4748.	0.9	7
89	SiC film growth on Si(111) by supersonic beams of C 60. <i>European Physical Journal B</i> , 2002, 26, 509-514.	0.6	6
90	Brillouin light scattering investigation of cluster-assembled carbon films: acoustic phonon propagation and elastic properties. <i>Diamond and Related Materials</i> , 2003, 12, 856-860.	1.8	6

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91	Nanodiamond Seeding for Nucleation and Growth of CVD Diamond Films. , 2005, , 109-124.		6
92	Nanofriction Behavior of Cluster-Assembled Carbon Films. Journal of Nanoscience and Nanotechnology, 2002, 2, 637-643.	0.9	5
93	Fullerene freejets-based synthesis of silicon carbide: heteroepitaxial growth on Si(111) at low temperatures. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2003, 101, 169-173.	1.7	5
94	Germanium Quantum Dot Grätzel-Type Solar Cell. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1800570.	0.8	5
95	Cluster-Assembled Materials: From Fabrication to Function. , 2018, , 417-427.		5
96	Cluster beam microfabrication of SiC pattern on Si(1 0 0). Surface Science, 2003, 544, L709-L714.	0.8	3
97	Electrical conductivity of cluster-assembled carbon/titania nanocomposite films irradiated by highly focused vacuum ultraviolet photon beams. Journal of Applied Physics, 2007, 101, 064314.	1.1	3
98	Corrigendum to "Kinetics of Different Processes in Human Insulin Amyloid Formation" [J. Mol. Biol. 366/1 (2007) 258-274]. Journal of Molecular Biology, 2011, 406, 354.	2.0	3
99	Nanoscale-Induced Formation of Silicide around Gold Nanoparticles Encapsulated in a-Si. Langmuir, 2020, 36, 939-947.	1.6	3
100	Quantitative Analysis of Gold Nano-aggregates by Combining Electron and Probe Microscopy Techniques. , 2018, , 67-80.		3
101	Micro- and Nanoscale Modification of Poly(2-hydroxyethyl methacrylate) Hydrogels by AFM Lithography and Nanoparticle Incorporation. Journal of Nanoscience and Nanotechnology, 2005, 5, 425-430.	0.9	2
102	FRactal Growth of Carbon Schwarzites. , 2005, , .		2
103	Structural and tribological properties of cluster-assembled CN <sub>x</sub> films. Applied Physics A: Materials Science and Processing, 2007, 87, 767-772.	1.1	2
104	Adsorption and Stability of Streptavidin on Cluster-Assembled Nanostructured TiO <sub>x</sub> Films. Biophysical Journal, 2009, 96, 50a.	0.2	2
105	Micropatterning of Substrates for the Culture of Cell Networks by Stencil-Assisted Additive Nanofabrication. Micromachines, 2021, 12, 94.	1.4	2
106	Surface Analysis Using Dynamic AFM. , 2013, , 3411-3418.		2
107	Synthesis and Characterization of Cluster-Assembled Carbon Films. Materials Research Society Symposia Proceedings, 1999, 593, 75.	0.1	1
108	Investigation of Interfacial Properties of Supported [C <sub>4</sub> mim][NTf <sub>2</sub> ] Thin Films by Atomic Force Microscopy. ACS Symposium Series, 2010, , 273-290.	0.5	1

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109	Characterization of Structural and Configurational Properties of DNA by Atomic Force Microscopy. <i>Methods in Molecular Biology</i> , 2018, 1672, 557-573.	0.4	1
110	Nanofriction Behavior of Cluster-Assembled Carbon Films. <i>Journal of Nanoscience and Nanotechnology</i> , 2002, 2, 637-643.	0.9	1
111	Inserting Hydrogen into Germanium Quantum Dots. <i>Journal of Physical Chemistry C</i> , 2021, 125, 24640-24647.	1.5	1
112	Synthesis of SiC on Si by Seeded Supersonic Beams of Fullerenes. <i>Materials Research Society Symposia Proceedings</i> , 1999, 585, 257.	0.1	0
113	Film Growth, by Seeded Supersonic Beams, of Thiophene-Based Oligomers with Controlled Optical, Structural and Morphological Properties. <i>Materials Research Society Symposia Proceedings</i> , 1999, 598, 184.	0.1	0
114	Preparation of high-quality organic films by deposition and co-deposition via supersonic seeded beams. , 2001, , .		0