

Elisa Riedo

List of Publications by Year in descending order

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75
papers

5,923
citations

109321

35
h-index

85541

71
g-index

80
all docs

80
docs citations

80
times ranked

8836
citing authors

#	ARTICLE	IF	CITATIONS
1	Thermal scanning probe lithography. Nature Reviews Methods Primers, 2022, 2, .	21.2	19
2	Two-dimensional diamonds from sp ² -to-sp ³ phase transitions. Nature Reviews Materials, 2022, 7, 814-832.	48.7	28
3	Pressure-Induced Formation and Mechanical Properties of 2D Diamond Boron Nitride. Advanced Science, 2021, 8, 2002541.	11.2	11
4	Nanofabrication of graphene field-effect transistors by thermal scanning probe lithography. APL Materials, 2021, 9, .	5.1	7
5	Cost and Time Effective Lithography of Reusable Millimeter Size Bone Tissue Replicas With Sub-15Ånm Feature Size on A Biocompatible Polymer. Advanced Functional Materials, 2021, 31, 2008662.	14.9	8
6	Tissue Engineering: Cost and Time Effective Lithography of Reusable Millimeter Size Bone Tissue Replicas With Sub-15Ånm Feature Size on A Biocompatible Polymer (Adv. Funct. Mater. 19/2021). Advanced Functional Materials, 2021, 31, 2170129.	14.9	0
7	Spatial defects nanoengineering for bipolar conductivity in MoS ₂ . Nature Communications, 2020, 11, 3463.	12.8	41
8	Scalable, Highly Conductive, and Micropatternable MXene Films for Enhanced Electromagnetic Interference Shielding. Matter, 2020, 3, 546-557.	10.0	127
9	Atomic force microscopy phase imaging of epitaxial graphene films. JPhys Materials, 2020, 3, 024005.	4.2	8
10	Optically Inspired Nanomagnonics with Nonreciprocal Spin Waves in Synthetic Antiferromagnets. Advanced Materials, 2020, 32, e1906439.	21.0	58
11	Self-Assembly Propensity Dictates Lifetimes in Transient Naphthalimide-Dipeptide Nanofibers. Chemistry - A European Journal, 2020, 26, 8372-8376.	3.3	25
12	Sub-10 nm Resolution Patterning of Pockets for Enzyme Immobilization with Independent Density and Quasi-3D Topography Control. ACS Applied Materials & Interfaces, 2019, 11, 41780-41790.	8.0	15
13	Layer dependence of graphene-diamene phase transition in epitaxial and exfoliated few-layer graphene using machine learning. 2D Materials, 2019, 6, 035043.	4.4	40
14	Å-indentation for non-destructive elastic moduli measurements of supported ultra-hard ultra-thin films and nanostructures. Scientific Reports, 2019, 9, 4075.	3.3	23
15	High-throughput protein nanopatterning. Faraday Discussions, 2019, 219, 33-43.	3.2	13
16	Patterning metal contacts on monolayer MoS ₂ with vanishing Schottky barriers using thermal nanolithography. Nature Electronics, 2019, 2, 17-25.	26.0	113
17	Ultrahard carbon film from epitaxial two-layer graphene. Nature Nanotechnology, 2018, 13, 133-138.	31.5	172
18	Friction and work function oscillatory behavior for an even and odd number of layers in polycrystalline MoS ₂ . Nanoscale, 2018, 10, 8304-8312.	5.6	36

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19	Q-carbon harder than diamond. MRS Communications, 2018, 8, 428-436.	1.8	36
20	Nanoscale spin-wave circuits based on engineered reconfigurable spin-textures. Communications Physics, 2018, 1, .	5.3	74
21	Stabilization and control of topological magnetic solitons via magnetic nanopatterning of exchange bias systems. Applied Physics Letters, 2018, 113, .	3.3	14
22	Epitaxial two-layer graphene under pressure: Diamene stiffer than Diamond. FlatChem, 2018, 10, 8-13.	5.6	36
23	Thermal scanning probe lithography: from spintronics to biomedical applications. , 2018, , .		0
24	Spin textures patterned via thermally assisted magnetic scanning probe lithography for magnonics. , 2018, , .		0
25	Understanding How Charged Nanoparticles Electrostatically Assemble and Distribute in 1-D. Langmuir, 2016, 32, 13600-13610.	3.5	9
26	Learning to 'think systems'. Nature Nanotechnology, 2016, 11, 824-824.	31.5	2
27	Van der Waals Force Isolation of Monolayer MoS ₂ . Advanced Materials, 2016, 28, 10055-10060.	21.0	34
28	Imaging thermal conductivity with nanoscale resolution using a scanning spin probe. Nature Communications, 2015, 6, 8954.	12.8	74
29	Elastic coupling between layers in two-dimensional materials. Nature Materials, 2015, 14, 714-720.	27.5	78
30	Measuring the Elasticity of Ribonucleotide(s)-Containing DNA Molecules Using AFM. Methods in Molecular Biology, 2015, 1297, 43-57.	0.9	8
31	Nanorheology by atomic force microscopy. Review of Scientific Instruments, 2014, 85, 123707.	1.3	28
32	Speed Dependence of Thermochemical Nanolithography for Gray-Scale Patterning. ChemPhysChem, 2014, 15, 2530-2535.	2.1	8
33	Parallelization of thermochemical nanolithography. Nanoscale, 2014, 6, 1299-1304.	5.6	41
34	RNA intrusions change DNA elastic properties and structure. Nanoscale, 2014, 6, 10009-10017.	5.6	49
35	Advanced scanning probe lithography. Nature Nanotechnology, 2014, 9, 577-587.	31.5	541
36	Sliding charges. Nature Materials, 2014, 13, 666-668.	27.5	2

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37	The interplay between apparent viscosity and wettability in nanoconfined water. <i>Nature Communications</i> , 2013, 4, 2482.	12.8	227
38	Fabricating Nanoscale Chemical Gradients with ThermoChemical NanoLithography. <i>Langmuir</i> , 2013, 29, 8675-8682.	3.5	40
39	Thermo-chemical metastability of multilayer epitaxial graphene oxide: Experiments and density functional theory calculations. <i>Materials Research Society Symposia Proceedings</i> , 2012, 1451, 39-44.	0.1	0
40	Adhesion and size dependent friction anisotropy in boron nitride nanotubes. <i>Nanotechnology</i> , 2012, 23, 455706.	2.6	9
41	Room-temperature metastability of multilayer graphene oxide films. <i>Nature Materials</i> , 2012, 11, 544-549.	27.5	512
42	Invited Review Article: Combining scanning probe microscopy with optical spectroscopy for applications in biology and materials science. <i>Review of Scientific Instruments</i> , 2012, 83, 061101.	1.3	68
43	Sliding on a Nanotube: Interplay of Friction, Deformations and Structure. <i>Advanced Materials</i> , 2012, 24, 2879-2884.	21.0	7
44	Nanofabrication of Functional Nanostructures by Thermochemical Nanolithography. , 2011, , 265-297.		0
45	Direct Fabrication of Arbitrary-Shaped Ferroelectric Nanostructures on Plastic, Glass, and Silicon Substrates. <i>Advanced Materials</i> , 2011, 23, 3786-3790.	21.0	31
46	Nanomanufacturing: Direct Fabrication of Arbitrary-Shaped Ferroelectric Nanostructures on Plastic, Glass, and Silicon Substrates (<i>Adv. Mater.</i> 33/2011). <i>Advanced Materials</i> , 2011, 23, 3740-3740.	21.0	13
47	Growth direction and morphology of ZnO nanobelts revealed by combining <i>in situ</i> atomic force microscopy and polarized Raman spectroscopy. <i>Physical Review B</i> , 2010, 81, .	3.2	30
48	Development of Self-Organizing, Self-Directing Molecular Nanowires: Synthesis and Characterization of Conjoined DNA~2,5-Bis(2-thienyl)pyrrole Oligomers. <i>Macromolecules</i> , 2010, 43, 4032-4040.	4.8	33
49	Nanoscale Tunable Reduction of Graphene Oxide for Graphene Electronics. <i>Science</i> , 2010, 328, 1373-1376.	12.6	658
50	A New AFM-Based Lithography Method: Thermochemical Nanolithography. <i>Nanoscience and Technology</i> , 2010, , 795-811.	1.5	1
51	Linear ripples and traveling circular ripples produced on polymers by thermal AFM probes. <i>Physical Review B</i> , 2009, 79, .	3.2	30
52	Combined polarized Raman and atomic force microscopy: In situ study of point defects and mechanical properties in individual ZnO nanobelts. <i>Applied Physics Letters</i> , 2009, 95, 051904.	3.3	28
53	Direct writing and characterization of poly(p-phenylene vinylene) nanostructures. <i>Applied Physics Letters</i> , 2009, 95, .	3.3	20
54	Thermochemical Nanolithography of Multifunctional Nanotemplates for Assembling Nano-Objects. <i>Advanced Functional Materials</i> , 2009, 19, 3696-3702.	14.9	61

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55	Hindered rolling and friction anisotropy in supported carbon nanotubes. <i>Nature Materials</i> , 2009, 8, 876-881.	27.5	70
56	Tip size effects on atomic force microscopy nanoindentation of a gold single crystal. <i>Journal of Applied Physics</i> , 2008, 104, .	2.5	20
57	Nanomechanics: Fundamentals and Application in NEMS Technology. <i>Nanostructure Science and Technology</i> , 2008, , 223-254.	0.1	0
58	Nonlinear Viscoelastic Dynamics of Nanoconfined Wetting Liquids. <i>Physical Review Letters</i> , 2008, 100, 106102.	7.8	84
59	Plastic deformation of pentagonal silver nanowires: Comparison between AFM nanoindentation and atomistic simulations. <i>Physical Review B</i> , 2008, 77, .	3.2	57
60	Reversible Nanoscale Local Wettability Modifications by Thermochemical Nanolithography. <i>Materials Research Society Symposia Proceedings</i> , 2007, 1059, 1.	0.1	0
61	High-Speed, Sub-15 nm Feature Size Thermochemical Nanolithography. <i>Nano Letters</i> , 2007, 7, 1064-1069.	9.1	165
62	Structured and viscous water in subnanometer gaps. <i>Physical Review B</i> , 2007, 75, .	3.2	276
63	Aspect Ratio Dependence of the Elastic Properties of ZnO Nanobelts. <i>Nano Letters</i> , 2007, 7, 1314-1317.	9.1	130
64	Analysis of improved photovoltaic properties of pentacene/C60 organic solar cells: Effects of exciton blocking layer thickness and thermal annealing. <i>Solid-State Electronics</i> , 2007, 51, 1367-1375.	1.4	117
65	Volume of a Nanoscale Water Bridge. <i>Langmuir</i> , 2006, 22, 1093-1098.	3.5	122
66	Nucleation Time of Nanoscale Water Bridges. <i>Physical Review Letters</i> , 2005, 95, 135502.	7.8	119
67	Nanoscope friction as a probe of local phase transitions. <i>Applied Physics Letters</i> , 2005, 87, 033105.	3.3	30
68	Elastic Property of Vertically Aligned Nanowires. <i>Nano Letters</i> , 2005, 5, 1954-1958.	9.1	280
69	Systematic Study on Experimental Conditions for Large-Scale Growth of Aligned ZnO Nanowires on Nitrides. <i>Journal of Physical Chemistry B</i> , 2005, 109, 9869-9872.	2.6	124
70	Thermally activated effects in nanofriction. <i>Nanotechnology</i> , 2004, 15, S288-S292.	2.6	26
71	Thermally activated phenomena observed by atomic force microscopy. <i>Materials Research Society Symposia Proceedings</i> , 2003, 790, 1.	0.1	1
72	Young modulus dependence of nanoscopic friction coefficient in hard coatings. <i>Applied Physics Letters</i> , 2003, 83, 1986-1988.	3.3	68

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73	Kinetics of Capillary Condensation in Nanoscopic Sliding Friction. <i>Physical Review Letters</i> , 2002, 88, 185505.	7.8	262
74	sp ² /sp ³ hybridization ratio in amorphous carbon from C1s core-level shifts: X-ray photoelectron spectroscopy and first-principles calculation. <i>Physical Review B</i> , 2001, 65, .	3.2	313
75	Identification of Defect Sites on MgO(100) Thin Films by Decoration with Pd Atoms and Studying CO Adsorption Properties. <i>Journal of the American Chemical Society</i> , 2001, 123, 6172-6178.	13.7	108