

Rodrigo A Bernal

List of Publications by Year in descending order

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29
papers

1,611
citations

430874

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552781

26
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docs citations

30
times ranked

2233
citing authors

#	ARTICLE	IF	CITATIONS
1	A Review of Mechanical and Electromechanical Properties of Piezoelectric Nanowires. <i>Advanced Materials</i> , 2012, 24, 4656-4675.	21.0	259
2	Ultrahigh Strength and Stiffness in Cross-Linked Hierarchical Carbon Nanotube Bundles. <i>Advanced Materials</i> , 2011, 23, 2855-2860.	21.0	213
3	Individual GaN Nanowires Exhibit Strong Piezoelectricity in 3D. <i>Nano Letters</i> , 2012, 12, 970-976.	9.1	125
4	Nucleation-Controlled Distributed Plasticity in Pentatwinned Silver Nanowires. <i>Small</i> , 2012, 8, 2986-2993.	10.0	101
5	Effect of Growth Orientation and Diameter on the Elasticity of GaN Nanowires. A Combined in Situ TEM and Atomistic Modeling Investigation. <i>Nano Letters</i> , 2011, 11, 548-555.	9.1	85
6	Intrinsic Bauschinger Effect and Recoverable Plasticity in Pentatwinned Silver Nanowires Tested in Tension. <i>Nano Letters</i> , 2015, 15, 139-146.	9.1	82
7	Pushing the Envelope of <i>In Situ</i> Transmission Electron Microscopy. <i>ACS Nano</i> , 2015, 9, 4675-4685.	14.6	80
8	In Situ TEM Electromechanical Testing of Nanowires and Nanotubes. <i>Small</i> , 2012, 8, 3233-3252.	10.0	79
9	Characterizing Atomic Composition and Dopant Distribution in Wide Band Gap Semiconductor Nanowires Using Laser-Assisted Atom Probe Tomography. <i>Journal of Physical Chemistry C</i> , 2011, 115, 17688-17694.	3.1	75
10	High Strain Rate Tensile Testing of Silver Nanowires: Rate-Dependent Brittle-to-Ductile Transition. <i>Nano Letters</i> , 2016, 16, 255-263.	9.1	75
11	Atom Probe Tomography of <i>a</i> -Axis GaN Nanowires: Analysis of Nonstoichiometric Evaporation Behavior. <i>ACS Nano</i> , 2012, 6, 3898-3906.	14.6	72
12	Localized Pulsed Electrodeposition Process for Three-Dimensional Printing of Nanotwinned Metallic Nanostructures. <i>Nano Letters</i> , 2018, 18, 208-214.	9.1	68
13	Microscale 3D Printing of Nanotwinned Copper. <i>Advanced Materials</i> , 2018, 30, 1705107.	21.0	55
14	Influence of chemical bonding on the variability of diamond-like carbon nanoscale adhesion. <i>Carbon</i> , 2018, 128, 267-276.	10.3	42
15	In Situ Electron Microscopy Four-Point Electromechanical Characterization of Freestanding Metallic and Semiconducting Nanowires. <i>Small</i> , 2014, 10, 725-733.	10.0	40
16	Double-tilt in situ TEM holder with multiple electrical contacts and its application in MEMS-based mechanical testing of nanomaterials. <i>Ultramicroscopy</i> , 2015, 156, 23-28.	1.9	32
17	Multiphysics design and implementation of a microsystem for displacement-controlled tensile testing of nanomaterials. <i>Meccanica</i> , 2015, 50, 549-560.	2.0	28
18	Visualization of nanoscale wear mechanisms in ultrananocrystalline diamond by in-situ TEM tribometry. <i>Carbon</i> , 2019, 154, 132-139.	10.3	28

#	ARTICLE	IF	CITATIONS
19	Strong piezoelectricity in individual GaN nanowires. MRS Communications, 2011, 1, 45-48.	1.8	15
20	Sliding History-Dependent Adhesion of Nanoscale Silicon Contacts Revealed by in Situ Transmission Electron Microscopy. Langmuir, 2019, 35, 15628-15638.	3.5	14
21	Stress-dependent adhesion and sliding-induced nanoscale wear of diamond-like carbon studied using in situ TEM nanoindentation. Carbon, 2022, 193, 230-241.	10.3	14
22	On the application of Weibull statistics for describing strength of micro and nanostructures. Mechanics of Materials, 2021, 162, 104057.	3.2	9
23	Influence of Chemical Bonding on the Variability of Diamond-Like Carbon Nanoscale Adhesion: An In-Situ TEM/Nanoindentation and Molecular Dynamics Study. Microscopy and Microanalysis, 2018, 24, 1822-1823.	0.4	5
24	Current density at failure of twinned silver nanowires. Nanotechnology, 2022, 33, 305706.	2.6	5
25	Influence of surface roughness on the transient interfacial phenomena in laser impact welding. Journal of Manufacturing Processes, 2022, 80, 480-490.	5.9	3
26	Atomistic Mechanical Testing of Nanostructures “ Seeing the Invisible and Bridging Theory and Experiments. Procedia IUTAM, 2014, 10, 447-452.	1.2	1
27	Printing of Microscale Nanotwinned Copper Interconnections Using Localized Pulsed Electrodeposition (L-PED). , 2018, , .		1
28	Additive Manufacturing of Metals at Micro/Nanoscale by Localized Pulsed Electrodeposition: Nanotwinned Copper Nanowires. , 2018, , .		1
29	Failure mechanisms and electromechanical coupling in semiconducting nanowires. EPJ Web of Conferences, 2010, 6, 40010.	0.3	0