

Blanca Biel

List of Publications by Year in descending order

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36
papers

2,131
citations

394421

19
h-index

454955

30
g-index

36
all docs

36
docs citations

36
times ranked

2828
citing authors

#	ARTICLE	IF	CITATIONS
1	Tuning the conductance of single-walled carbon nanotubes by ion irradiation in the Anderson localization regime. <i>Nature Materials</i> , 2005, 4, 534-539.	27.5	378
2	Anomalous Doping Effects on Charge Transport in Graphene Nanoribbons. <i>Physical Review Letters</i> , 2009, 102, 096803.	7.8	323
3	Charge transport in disordered graphene-based low dimensional materials. <i>Nano Research</i> , 2008, 1, 361-394.	10.4	319
4	Transport Length Scales in Disordered Graphene-Based Materials: Strong Localization Regimes and Dimensionality Effects. <i>Physical Review Letters</i> , 2008, 100, 036803.	7.8	192
5	Chemically Induced Mobility Gaps in Graphene Nanoribbons: A Route for Upscaling Device Performances. <i>Nano Letters</i> , 2009, 9, 2725-2729.	9.1	120
6	Quantum Transport in Graphene Nanoribbons: Effects of Edge Reconstruction and Chemical Reactivity. <i>ACS Nano</i> , 2010, 4, 1971-1976.	14.6	108
7	Versatile synthesis and enlargement of functionalized distorted heptagon-containing nanographenes. <i>Chemical Science</i> , 2017, 8, 1068-1074.	7.4	100
8	Schottky contacts on passivated GaAs(100) surfaces: barrier height and reactivity. <i>Applied Surface Science</i> , 2004, 234, 341-348.	6.1	77
9	Adsorption of small inorganic molecules on a defective MoS ₂ monolayer. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 9485-9499.	2.8	68
10	Anderson Localization in Carbon Nanotubes: Defect Density and Temperature Effects. <i>Physical Review Letters</i> , 2005, 95, 266801.	7.8	65
11	Theoretical characterisation of point defects on a MoS ₂ monolayer by scanning tunnelling microscopy. <i>Nanotechnology</i> , 2016, 27, 105702.	2.6	65
12	Atomistic Boron-Doped Graphene Field-Effect Transistors: A Route toward Unipolar Characteristics. <i>ACS Nano</i> , 2012, 6, 7942-7947.	14.6	60
13	Operation and Design of van der Waals Tunnel Transistors: A 3-D Quantum Transport Study. <i>IEEE Transactions on Electron Devices</i> , 2016, 63, 4388-4394.	3.0	31
14	A Potassium Metal-Organic Framework based on Perylene-3,4,9,10-tetracarboxylate as Sensing Layer for Humidity Actuators. <i>Scientific Reports</i> , 2018, 8, 14414.	3.3	27
15	Anderson localization regime in carbon nanotubes: size dependent properties. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 304211.	1.8	25
16	<i>Ab initio</i> study of transport properties in defected carbon nanotubes: an O(N) approach. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 294214.	1.8	22
17	Surface roughness scattering model for arbitrarily oriented silicon nanowires. <i>Journal of Applied Physics</i> , 2011, 110, 084514.	2.5	22
18	Atomic-scale defects and electronic properties of a transferred synthesized MoS ₂ monolayer. <i>Nanotechnology</i> , 2018, 29, 305703.	2.6	22

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19	Reactivity Enhancement and Fingerprints of Point Defects on a MoS ₂ Monolayer Assessed by <i>ab initio</i> Atomic Force Microscopy. <i>Journal of Physical Chemistry C</i> , 2016, 120, 17115-17126.	3.1	19
20	Multi-Subband Ensemble Monte Carlo simulation of bulk MOSFETs for the 32nm-node and beyond. <i>Solid-State Electronics</i> , 2011, 65-66, 88-93.	1.4	18
21	Conductance of functionalized nanotubes, graphene and nanowires: from <i>ab initio</i> to mesoscopic physics. <i>Physica Status Solidi (B): Basic Research</i> , 2010, 247, 2962-2967.	1.5	16
22	Influence of Orientation, Geometry, and Strain on Electron Distribution in Silicon Gate-All-Around (GAA) MOSFETs. <i>IEEE Transactions on Electron Devices</i> , 2011, 58, 3350-3357.	3.0	14
23	A computational study of van der Waals tunnel transistors: Fundamental aspects and design challenges. , 2015, , .		7
24	Electron-hole transport asymmetry in boron-doped graphene field effect transistors. , 2012, , .		6
25	Chemically enriched graphene-based switching devices: A novel principle driven by impurity-induced quasibound states and quantum coherence. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2012, 44, 960-962.	2.7	6
26	Tunability of effective masses on MoS ₂ monolayers. <i>Microelectronic Engineering</i> , 2015, 147, 302-305.	2.4	6
27	Quantum transport in graphene nanoribbons in the presence of disorder. , 0, , .		4
28	<i>Ab initio</i> validation of continuum models parametrizations for ultrascaled SOI interfaces. <i>Microelectronic Engineering</i> , 2013, 109, 286-289.	2.4	3
29	Two-band $k \cdot p$ model for Si-(110) electron devices. <i>Journal of Applied Physics</i> , 2013, 114, 073706.	2.5	2
30	Strain effects on effective masses for MoS ₂ monolayers. <i>Journal of Physics: Conference Series</i> , 2015, 609, 012008.	0.4	2
31	DNA/RNA sequencing using germanene nanoribbons <i>via</i> two dimensional molecular electronic spectroscopy: an <i>ab initio</i> study. <i>Nanoscale</i> , 2022, 14, 5147-5153.	5.6	2
32	Metallization and Schottky-barrier formation for Se-passivated GaAs(1 0 0) interfaces. <i>Applied Surface Science</i> , 2002, 190, 475-479.	6.1	1
33	Mobility gaps in disordered graphene-based materials: an <i>ab initio</i> -based tight-binding approach to mesoscopic transport. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2010, 7, 2628-2631.	0.8	1
34	<i>Ab initio</i> validation of continuum models for Si/SiO ₂ interfaces. , 2013, , .		0
35	Non-parabolicity in Si-(110) nMOSFETs: Analytic and numerical results for the two-band $k \cdot p$ model. , 2013, , .		0
36	LOCALIZATION AND DIFFUSIVE PROCESSES IN THE ELECTRONIC TRANSPORT IN QUASI ONE-DIMENSIONAL NANOSTRUCTURES. , 2009, , .		0