Blanca Biel

List of Publications by Year
in descending order

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	DNA/RNA sequencing using germanene nanoribbons <i>via</i> two dimensional molecular electronic spectroscopy: an <i>ab initio</i> study. Nanoscale, 2022, 14, 5147-5153.	5.6	2
2	Atomic-scale defects and electronic properties of a transferred synthesized MoS₂ monolayer. Nanotechnology, 2018, 29, 305703.	2.6	22
3	A Potassium Metal-Organic Framework based on Perylene-3,4,9,10-tetracarboxylate as Sensing Layer for Humidity Actuators. Scientific Reports, 2018, 8, 14414.	3.3	27
4	Adsorption of small inorganic molecules on a defective MoS₂monolayer. Physical Chemistry Chemical Physics, 2017, 19, 9485-9499.	2.8	68
5	Versatile synthesis and enlargement of functionalized distorted heptagon-containing nanographenes. Chemical Science, 2017, 8, 1068-1074.	7.4	100
6	Reactivity Enhancement and Fingerprints of Point Defects on a MoS₂ Monolayer Assessed by <i>ab Initio</i> Atomic Force Microscopy. Journal of Physical Chemistry C, 2016, 120, 17115-17126.	3.1	19
7	Operation and Design of van der Waals Tunnel Transistors: A 3-D Quantum Transport Study. IEEE Transactions on Electron Devices, 2016, 63, 4388-4394.	3.0	31
8	Theoretical characterisation of point defects on a MoS₂monolayer by scanning tunnelling microscopy. Nanotechnology, 2016, 27, 105702.	2.6	65
9	A computational study of van der Waals tunnel transistors: Fundamental aspects and design challenges. , 2015, , .		7
10	Strain effects on effective masses for MoS₂monolayers. Journal of Physics: Conference Series, 2015, 609, 012008.	0.4	2
11	Tunability of effective masses on MoS2 monolayers. Microelectronic Engineering, 2015, 147, 302-305.	2.4	6
12	Two-band kâ€‰Â·â€‰p model for Si-(110) electron devices. Journal of Applied Physics, 2013, 114, 073706.	2.5	2
13	Ab initio validation of continuum models for Si/SiO<inf>2</inf> interfaces. , 2013, , .		0
14	Ab initio validation of continuum models parametrizations for ultrascaled SOI interfaces. Microelectronic Engineering, 2013, 109, 286-289.	2.4	3
15	Non-parabolicity in Si-(110) nMOSFETs: Analytic and numerical results for the two-band k · p model. , 2013, , .		0
16	Electron-hole transport asymmetry in boron-doped graphene field effect transistors. , 2012, , .		6
17	Atomistic Boron-Doped Graphene Field-Effect Transistors: A Route toward Unipolar Characteristics. ACS Nano, 2012, 6, 7942-7947.	14.6	60
18	Chemically enriched graphene-based switching devices: A novel principle driven by impurity-induced quasibound states and quantum coherence. Physica E: Low-Dimensional Systems and Nanostructures, 2012, 44, 960-962.	2.7	6

#	Article	IF	Citations
19	Surface roughness scattering model for arbitrarily oriented silicon nanowires. Journal of Applied Physics, 2011, 110, 084514.	2.5	22
20	Multi-Subband Ensemble Monte Carlo simulation of bulk MOSFETs for the 32nm-node and beyond. Solid-State Electronics, 2011, 65-66, 88-93.	1.4	18
21	Influence of Orientation, Geometry, and Strain on Electron Distribution in Silicon Gate-All-Around (GAA) MOSFETs. IEEE Transactions on Electron Devices, 2011, 58, 3350-3357.	3.0	14
22	Conductance of functionalized nanotubes, graphene and nanowires: from <i>ab initio</i> to mesoscopic physics. Physica Status Solidi (B): Basic Research, 2010, 247, 2962-2967.	1.5	16
23	Mobility gaps in disordered grapheneâ€based materials: an <i>ab initio</i> â€based tightâ€binding approach to mesoscopic transport. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 2628-2631.	0.8	1
24	Quantum Transport in Graphene Nanoribbons: Effects of Edge Reconstruction and Chemical Reactivity. ACS Nano, 2010, 4, 1971-1976.	14.6	108
25	Chemically Induced Mobility Gaps in Graphene Nanoribbons: A Route for Upscaling Device Performances. Nano Letters, 2009, 9, 2725-2729.	9.1	120
26	Anomalous Doping Effects on Charge Transport in Graphene Nanoribbons. Physical Review Letters, 2009, 102, 096803.	7.8	323
27	LOCALIZATION AND DIFFUSIVE PROCESSES IN THE ELECTRONIC TRANSPORT IN QUASI ONE-DIMENSIONAL NANOSTRUCTURES. , 2009, , .		0
28	Charge transport in disordered graphene-based low dimensional materials. Nano Research, 2008, 1, 361-394.	10.4	319
29	Transport Length Scales in Disordered Graphene-Based Materials: Strong Localization Regimes and Dimensionality Effects. Physical Review Letters, 2008, 100, 036803.	7.8	192
30	<i>Ab initio</i>study of transport properties in defected carbon nanotubes: an O(<i>N</i>) approach. Journal of Physics Condensed Matter, 2008, 20, 294214.	1.8	22
31	Anderson localization regime in carbon nanotubes: size dependent properties. Journal of Physics Condensed Matter, 2008, 20, 304211.	1.8	25
32	Tuning the conductance of single-walled carbon nanotubes by ion irradiation in the Anderson localization regime. Nature Materials, 2005, 4, 534-539.	27.5	378
33	Anderson Localization in Carbon Nanotubes: Defect Density and Temperature Effects. Physical Review Letters, 2005, 95, 266801.	7.8	65
34	Schottky contacts on passivated GaAs(100) surfaces: barrier height and reactivity. Applied Surface Science, 2004, 234, 341-348.	6.1	77
35	Metallization and Schottky-barrier formation for Se-passivated GaAs(1 0 0) interfaces. Applied Surface Science, 2002, 190, 475-479.	6.1	1
36	Quantum transport in graphene nanoribbons in the presence of disorder. , 0, , .		4