

Gabino Rubio-Bollinger

List of Publications by Year in descending order

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65
papers

4,965
citations

109264

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110317

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65
all docs

65
docs citations

65
times ranked

6671
citing authors

#	ARTICLE	IF	CITATIONS
1	Elastic Properties of Freely Suspended MoS ₂ Nanosheets. <i>Advanced Materials</i> , 2012, 24, 772-775.	11.1	905
2	The signature of chemical valence in the electrical conduction through a single-atom contact. <i>Nature</i> , 1998, 394, 154-157.	13.7	597
3	Onset of Energy Dissipation in Ballistic Atomic Wires. <i>Physical Review Letters</i> , 2002, 88, 216803.	2.9	239
4	Strong Modulation of Optical Properties in Black Phosphorus through Strain-Engineered Rippling. <i>Nano Letters</i> , 2016, 16, 2931-2937.	4.5	199
5	Engineering the Thermopower of C ₆₀ Molecular Junctions. <i>Nano Letters</i> , 2013, 13, 2141-2145.	4.5	156
6	Incorporating single molecules into electrical circuits. The role of the chemical anchoring group. <i>Chemical Society Reviews</i> , 2015, 44, 920-942.	18.7	154
7	Spatially resolved optical absorption spectroscopy of single- and few-layer MoS ₂ by hyperspectral imaging. <i>Nanotechnology</i> , 2016, 27, 115705.	1.3	145
8	Electric Field Screening in Atomically Thin Layers of MoS ₂ : the Role of Interlayer Coupling. <i>Advanced Materials</i> , 2013, 25, 899-903.	11.1	143
9	Mechanical properties of freely suspended semiconducting graphene-like layers based on MoS ₂ . <i>Nanoscale Research Letters</i> , 2012, 7, 233.	3.1	134
10	Molecular design and control of fullerene-based bi-thermoelectric materials. <i>Nature Materials</i> , 2016, 15, 289-293.	13.3	132
11	Thermopower measurements in molecular junctions. <i>Chemical Society Reviews</i> , 2016, 45, 4285-4306.	18.7	126
12	Centimeter-Scale Synthesis of Ultrathin Layered MoO ₃ by van der Waals Epitaxy. <i>Chemistry of Materials</i> , 2016, 28, 4042-4051.	3.2	100
13	Study of Electron-Phonon Interactions in a Single Molecule Covalently Connected to Two Electrodes. <i>Nano Letters</i> , 2008, 8, 1673-1678.	4.5	94
14	Strong Quantum Confinement Effect in the Optical Properties of Ultrathin In ₂ Se ₃ . <i>Advanced Optical Materials</i> , 2016, 4, 1939-1943.	3.6	89
15	Mechanical properties of freely suspended atomically thin dielectric layers of mica. <i>Nano Research</i> , 2012, 5, 550-557.	5.8	87
16	Bias-Driven Conductance Increase with Length in Porphyrin Tapes. <i>Journal of the American Chemical Society</i> , 2018, 140, 12877-12883.	6.6	84
17	Unambiguous One-Molecule Conductance Measurements under Ambient Conditions. <i>Nano Letters</i> , 2011, 11, 2236-2241.	4.5	81
18	Atomically Thin Mica Flakes and Their Application as Ultrathin Insulating Substrates for Graphene. <i>Small</i> , 2011, 7, 2491-2497.	5.2	81

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19	Influence of Binding Groups on Molecular Junction Formation. <i>Journal of the American Chemical Society</i> , 2011, 133, 14313-14319.	6.6	80
20	Toward Multiple Conductance Pathways with Heterocycle-Based Oligo(phenyleneethynylene) Derivatives. <i>Journal of the American Chemical Society</i> , 2015, 137, 13818-13826.	6.6	64
21	Electron transport and phonons in atomic wires. <i>Chemical Physics</i> , 2002, 281, 231-234.	0.9	62
22	Break-Junction Experiments on Acetyl-Protected Conjugated Dithiols under Different Environmental Conditions. <i>Journal of Physical Chemistry C</i> , 2011, 115, 17973-17978.	1.5	62
23	Fast and reliable identification of atomically thin layers of TaSe ₂ crystals. <i>Nano Research</i> , 2013, 6, 191-199.	5.8	62
24	Electronic Bandgap and Exciton Binding Energy of Layered Semiconductor TiS ₃ . <i>Advanced Electronic Materials</i> , 2015, 1, 1500126.	2.6	59
25	A Comprehensive Study of Extended Tetrathiafulvalene Cruciform Molecules for Molecular Electronics: Synthesis and Electrical Transport Measurements. <i>Journal of the American Chemical Society</i> , 2014, 136, 16497-16507.	6.6	55
26	Strain engineering of Schottky barriers in single- and few-layer MoS ₂ vertical devices. <i>2D Materials</i> , 2017, 4, 021006.	2.0	54
27	High Current Density Electrical Breakdown of TiS ₃ Nanoribbon-Based Field-Effect Transistors. <i>Advanced Functional Materials</i> , 2017, 27, 1605647.	7.8	52
28	Current rectification in a single molecule diode: the role of electrode coupling. <i>Nanotechnology</i> , 2015, 26, 291001.	1.3	51
29	Enhanced Visibility of MoS ₂ , MoSe ₂ , WSe ₂ and Black-Phosphorus: Making Optical Identification of 2D Semiconductors Easier. <i>Electronics (Switzerland)</i> , 2015, 4, 847-856.	1.8	44
30	Structural versus Electrical Functionalization of Oligo(phenylene ethynylene) Diamine Molecular Junctions. <i>Journal of Physical Chemistry C</i> , 2014, 118, 21655-21662.	1.5	42
31	Highly responsive UV-photodetectors based on single electrospun TiO ₂ nanofibres. <i>Journal of Materials Chemistry C</i> , 2016, 4, 10707-10714.	2.7	41
32	The Role of Oligomeric Gold-Thiolate Units in Single-Molecule Junctions of Thiol-Anchored Molecules. <i>Journal of Physical Chemistry C</i> , 2018, 122, 3211-3218.	1.5	41
33	Quantum Thermopower of Metallic Atomic-Size Contacts at Room Temperature. <i>Nano Letters</i> , 2015, 15, 1006-1011.	4.5	39
34	Unusual Length Dependence of the Conductance in Cumulene Molecular Wires. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 8378-8382.	7.2	39
35	Detecting Mechanochemical Atropisomerization within an STM Break Junction. <i>Journal of the American Chemical Society</i> , 2018, 140, 710-718.	6.6	38
36	Strain-induced band gap engineering in layered TiS ₃ . <i>Nano Research</i> , 2018, 11, 225-232.	5.8	36

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37	Molecular Structureâ€™ (Thermo)electric Property Relationships in Single-Molecule Junctions and Comparisons with Single- and Multiple-Parameter Models. <i>Journal of the American Chemical Society</i> , 2021, 143, 3817-3829.	6.6	35
38	Ultralong Natural Graphene Nanoribbons and Their Electrical Conductivity. <i>Small</i> , 2009, 5, 924-927.	5.2	33
39	Thermoelectric Properties of 2,7-Dipyridylfluorene Derivatives in Single-Molecule Junctions. <i>Journal of Physical Chemistry C</i> , 2018, 122, 27198-27204.	1.5	33
40	Force-gradient-induced mechanical dissipation of quartz tuning fork force sensors used in atomic force microscopy. <i>Ultramicroscopy</i> , 2011, 111, 186-190.	0.8	30
41	Single-molecule conductance of a chemically modified, ï€-extended tetrathiafulvalene and its charge-transfer complex with F₄TCNQ. <i>Beilstein Journal of Organic Chemistry</i> , 2015, 11, 1068-1078.	1.3	29
42	Can One Define the Conductance of Amino Acids?. <i>Biomolecules</i> , 2019, 9, 580.	1.8	29
43	Thermoelectric Enhancement in Single Organic Radical Molecules. <i>Nano Letters</i> , 2022, 22, 948-953.	4.5	28
44	Spatially resolved electronic inhomogeneities of graphene due to subsurface charges. <i>Carbon</i> , 2012, 50, 932-938.	5.4	27
45	Optical contrast and refractive index of natural van der Waals heterostructure nanosheets of franckeite. <i>Beilstein Journal of Nanotechnology</i> , 2017, 8, 2357-2362.	1.5	27
46	Stability of Single- and Few-Molecule Junctions of Conjugated Diamines. <i>Journal of the American Chemical Society</i> , 2013, 135, 5420-5426.	6.6	26
47	Cross-conjugation increases the conductance of <i>meta</i>-connected fluorenones. <i>Nanoscale</i> , 2019, 11, 13720-13724.	2.8	25
48	Strong modulation of optical properties in rippled 2D GaSe <i>via</i> strain engineering. <i>Nanotechnology</i> , 2019, 30, 24LT01.	1.3	21
49	Fast Yet Quantumâ€™Efficient Fewâ€™Layer Vertical MoS₂ Photodetectors. <i>Advanced Electronic Materials</i> , 2019, 5, 1900141.	2.6	16
50	Highly reproducible low temperature scanning tunneling microscopy and spectroscopy with in situ prepared tips. <i>Ultramicroscopy</i> , 2012, 122, 1-5.	0.8	13
51	Connectivity dependent thermopower of bridged biphenyl molecules in single-molecule junctions. <i>Nanoscale</i> , 2020, 12, 14682-14688.	2.8	13
52	2,7- and 4,9-Dialkynyldihydropyrene Molecular Switches: Syntheses, Properties, and Charge Transport in Single-Molecule Junctions. <i>Journal of the American Chemical Society</i> , 2022, 144, 12698-12714.	6.6	12
53	A Detailed Experimental and Theoretical Study into the Properties of C₆₀ Dumbbell Junctions. <i>Small</i> , 2013, 9, 3812-3822.	5.2	11
54	Effect of Charge-Assisted Hydrogen Bonds on Single-Molecule Electron Transport. <i>Journal of Physical Chemistry C</i> , 2019, 123, 29386-29393.	1.5	11

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55	Unusual Length Dependence of the Conductance in Cumulene Molecular Wires. <i>Angewandte Chemie</i> , 2019, 131, 8466-8470.	1.6	11
56	Exploring seebeck-coefficient fluctuations in endohedral-fullerene, single-molecule junctions. <i>Nanoscale Horizons</i> , 2022, 7, 616-625.	4.1	11
57	Does a Cyclopropane Ring Enhance the Electronic Communication in Dumbbell-Type C60 Dimers?. <i>Journal of Organic Chemistry</i> , 2014, 79, 4871-4877.	1.7	10
58	Carbon tips as electrodes for single-molecule junctions. <i>Applied Physics Letters</i> , 2011, 99, 123105.	1.5	8
59	Periodic spatial variation of the electron-phonon interaction in epitaxial graphene on Ru(0001). <i>Applied Physics Letters</i> , 2013, 102, .	1.5	8
60	Long-lived charged states of single porphyrin-tape junctions under ambient conditions. <i>Nanoscale Horizons</i> , 2021, 6, 49-58.	4.1	8
61	Calibration of Piezoelectric Positioning Actuators Using a Reference Voltage-to-Displacement Transducer Based on Quartz Tuning Forks. <i>Microscopy and Microanalysis</i> , 2012, 18, 353-358.	0.2	7
62	Interference Controls Conductance in Phthalocyanine Molecular Junctions. <i>Journal of Physical Chemistry C</i> , 2021, 125, 15035-15043.	1.5	7
63	Simplified feedback control system for scanning tunneling microscopy. <i>Review of Scientific Instruments</i> , 2021, 92, 103705.	0.6	5
64	Carbon-fiber tips for scanning probe microscopes and molecular electronics experiments. <i>Nanoscale Research Letters</i> , 2012, 7, 254.	3.1	4
65	Mechanical Properties and Electric Field Screening of Atomically Thin MoS2 Crystals. <i>Lecture Notes in Nanoscale Science and Technology</i> , 2014, , 129-153.	0.4	0