Ismael DÃez-PÃ©rez

List of Publications by Year
in descending order

88 papers	6,009 citations	61945 43 h-index	71651 76 g-index
90 all docs	90 docs citations	90 times ranked	6249 citing authors

#	Article	IF	Citations
1	Electrostatic catalysis of a Dielsâ€“Alder reaction. Nature, 2016, 531, 88-91.	13.7	596
2	Rectification and stability of a single molecular diode with controlled orientation. Nature Chemistry, 2009, 1, 635-641.	6.6	517
3	Imaging the electrocatalytic activity of single nanoparticles. Nature Nanotechnology, 2012, 7, 668-672.	15.6	273
4	Harnessing electrostatic catalysis in single molecule, electrochemical and chemical systems: a rapidly growing experimental tool box. Chemical Society Reviews, 2018, 47, 5146-5164.	18.7	207
5	Transition from Tunneling to Hopping in Single Molecular Junctions by Measuring Length and Temperature Dependence. Journal of the American Chemical Society, 2010, 132, 11658-11664.	6.6	195
6	Measurement and Statistical Analysis of Single-Molecule Currentâ€“Voltage Characteristics, Transition Voltage Spectroscopy, and Tunneling Barrier Height. Journal of the American Chemical Society, 2011, 133, 19189-19197.	6.6	181
7	Catalytic Turnover of [FeFe]-Hydrogenase Based on Single-Molecule Imaging. Journal of the American Chemical Society, 2012, 134, 1577-1582.	6.6	172
8	Folding and Hydrodynamic Forces in J-Aggregates of 5-Phenyl-10,15,20-tris(4-sulfophenyl)porphyrin. Angewandte Chemie - International Edition, 2006, 45, 8032-8035.	7.2	157
9	Observation of Electrochemically Controlled Quantum Interference in a Single Anthraquinoneâ€Based Norbornylogous Bridge Molecule. Angewandte Chemie - International Edition, 2012, 51, 3203-3206.	7.2	150
10	Large Conductance Switching in a Single-Molecule Device through Room Temperature Spin-Dependent Transport. Nano Letters, 2016, 16, 218-226.	4.5	148
11	Measuring the Spinâ€Polarization Power of a Single Chiral Molecule. Small, 2017, 13, 1602519.	5.2	143
12	Fine structure study of AÎ² 1â€“42 fibrillogenesis with atomic force microscopy. FASEB Journal, 2005, 19, 1344-1346.	0.2	141
13	Controlling single-molecule conductance through lateral coupling of Ï€ orbitals. Nature Nanotechnology, 2011, 6, 226-231.	15.6	138
14	Multi-Responsive Photo- and Chemo-Electrical Single-Molecule Switches. Nano Letters, 2014, 14, 7064-7070.	4.5	134
15	Gate-controlled electron transport in coronenes as a bottom-up approach towards graphene transistors. Nature Communications, 2010, 1, 31.	5.8	104
16	Direct Observation of the Valence Band Edge by in Situ ECSTM-ECTS in p-Type Cu₂O Layers Prepared by Copper Anodization. Journal of Physical Chemistry C, 2009, 113, 1028-1036.	1.5	99
17	Single-molecule electrical contacts on silicon electrodes under ambient conditions. Nature Communications, 2017, 8, 15056.	5.8	93
18	Transistor-like Behavior of Single Metalloprotein Junctions. Nano Letters, 2012, 12, 2679-2684.	4.5	90

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19	Control of neurotransmitter release by an internal gel matrix in synaptic vesicles. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 3485-3490.	3.3	88
20	2-D Self-assembly of the bis(phthalocyaninato)terbium(iii) single-molecule magnet studied by scanning tunnelling microscopy. Chemical Communications, 2006, , 2866-2868.	2.2	86
21	Bioengineering a Single-Protein Junction. Journal of the American Chemical Society, 2017, 139, 15337-15346.	6.6	84
22	Self-Assembly of a Cyclobutane Î²-Tetrapeptide To Form Nanosized Structures. Organic Letters, 2007, 9, 3643-3645.	2.4	81
23	Inelastic Transport and Low-Bias Rectification in a Single-Molecule Diode. ACS Nano, 2011, 5, 8331-8339.	7.3	78
24	A Chirality-Based Quantum Leap. ACS Nano, 2022, 16, 4989-5035.	7.3	74
25	Formation of Studtite during the Oxidative Dissolution of UO2by Hydrogen Peroxide:Â A SFM Study. Environmental Science & Technology, 2004, 38, 6656-6661.	4.6	71
26	Controlling Formation of Single-Molecule Junctions by Electrochemical Reduction of Diazonium Terminal Groups. Journal of the American Chemical Society, 2013, 135, 3319-3322.	6.6	71
27	Chemically and Mechanically Controlled Single-Molecule Switches Using Spiropyrans. ACS Applied Materials & Interfaces, 2019, 11, 36886-36894.	4.0	69
28	Ambipolar Transport in an Electrochemically Gated Single-Molecule Field-Effect Transistor. ACS Nano, 2012, 6, 7044-7052.	7.3	67
29	Single Molecular Switches: Electrochemical Gating of a Single Anthraquinone-Based Norbornylogous Bridge Molecule. Journal of Physical Chemistry C, 2012, 116, 21093-21097.	1.5	66
30	Metalâ€“Single-Moleculeâ€“Semiconductor Junctions Formed by a Radical Reaction Bridging Gold and Silicon Electrodes. Journal of the American Chemical Society, 2019, 141, 14788-14797.	6.6	62
31	Electron Transport in Single Molecules Measured by a Distance-Modulation Assisted Break Junction Method. Nano Letters, 2008, 8, 1960-1964.	4.5	61
32	Growth of ordered anodic SnO₂nanochannel layers and their use for H₂gas sensing. Journal of Materials Chemistry A, 2014, 2, 915-920.	5.2	60
33	Chiral shape and enantioselective growth of colloidal particles of self-assembled meso-tetra(phenyl) Tj ETQq1 1 0.784314 rgBT /Overl	2.2	59
34	Folding and self-assembling with Î²-oligomers based on (1R,2S)-2-aminocyclobutane-1-carboxylic acid. Organic and Biomolecular Chemistry, 2010, 8, 564-575.	1.5	59
35	High conductance values in Ï€-folded molecular junctions. Nature Communications, 2017, 8, 15195.	5.8	54
36	Currentâ€“Voltage Characteristics and Transition Voltage Spectroscopy of Individual Redox Proteins. Journal of the American Chemical Society, 2012, 134, 20218-20221.	6.6	53

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37	Electrochemically-gated single-molecule electrical devices. Electrochimica Acta, 2013, 110, 741-753.	2.6	53
38	Oxidative dissolution of chalcopyrite by Acidithiobacillus ferrooxidans analyzed by electrochemical impedance spectroscopy and atomic force microscopy. Bioelectrochemistry, 2004, 64, 79-84.	2.4	50
39	Direct Measurement of Electron Transfer Distance Decay Constants of Single Redox Proteins by Electrochemical Tunneling Spectroscopy. ACS Nano, 2011, 5, 2060-2066.	7.3	48
40	Highly Conductive Single-Molecule Wires with Controlled Orientation by Coordination of Metalloporphyrins. Nano Letters, 2014, 14, 4751-4756.	4.5	48
41	An Ideal Spin Filter: Long-Range, High-Spin Selectivity in Chiral Helicoidal 3-Dimensional Metal Organic Frameworks. Nano Letters, 2020, 20, 8476-8482.	4.5	47
42	Tin passivation in alkaline media: Formation of SnO microcrystals as hydroxyl etching product. Electrochimica Acta, 2013, 111, 837-845.	2.6	45
43	Conductance Switching in Single Wired Redox Proteins. Small, 2014, 10, 2537-2541.	5.2	44
44	In situ studies of metal passive films. Current Opinion in Solid State and Materials Science, 2006, 10, 144-152.	5.6	42
45	Preparation of Reliable Probes for Electrochemical Tunneling Spectroscopy. Analytical Chemistry, 2004, 76, 5218-5222.	3.2	41
46	Metal-Controlled Magnetoresistance at Room Temperature in Single-Molecule Devices. Journal of the American Chemical Society, 2017, 139, 5768-5778.	6.6	41
47	Control over Near-Ballistic Electron Transport through Formation of Parallel Pathways in a Single-Molecule Wire. Journal of the American Chemical Society, 2019, 141, 240-250.	6.6	39
48	Interaction of Water with Self-Assembled Monolayers of Alkylsilanes on Mica. Langmuir, 2004, 20, 1284-1290.	1.6	37
49	Electronic barriers in the iron oxide film govern its passivity and redox behavior: Effect of electrode potential and solution pH. Electrochemistry Communications, 2006, 8, 1595-1602.	2.3	37
50	The spontaneous formation of single-molecule junctions via terminal alkynes. Nanotechnology, 2015, 26, 381001.	1.3	35
51	Fineâ€Tuning of Singleâ€Molecule Conductance by Tweaking Both Electronic Structure and Conformation of Side Substituents. Chemistry - A European Journal, 2015, 21, 7716-7720.	1.7	33
52	Molecular Packing Changes of Octadecylamine Monolayers on Mica Induced by Pressure and Humidity. Langmuir, 2003, 19, 762-765.	1.6	30
53	The iron passive film breakdown in chloride media may be mediated by transient chloride-induced surface states located within the band gap. Electrochemistry Communications, 2006, 8, 627-632.	2.3	30
54	Controlled Thermal Annealing Tunes the Photoelectrochemical Properties of Nanochanneled Tinâ€Oxide Structures. ChemElectroChem, 2014, 1, 1133-1137.	1.7	30

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55	Nanoscale charge transfer in redox proteins and DNA: Towards biomolecular electronics. Electrochimica Acta, 2014, 140, 83-95.	2.6	29
56	Charge transport at the proteinâ€“electrode interface in the emerging field of BioMolecular Electronics. Current Opinion in Electrochemistry, 2021, 28, 100734.	2.5	29
57	Tuning the electrical conductance of metalloporphyrin supramolecular wires. Scientific Reports, 2016, 6, 37352.	1.6	27
58	Can Electron Transport through a Blue-Copper Azurin Be Coherent? An Ab Initio Study. Journal of Physical Chemistry C, 2021, 125, 1693-1702.	1.5	25
59	Conductance Maps by Electrochemical Tunneling Spectroscopy To Fingerprint the Electrode Electronic Structure. Analytical Chemistry, 2006, 78, 7325-7329.	3.2	23
60	Characterization of bornite (Cu5FeS4) electrodes in the presence of the bacterium Acidithiobacillus ferrooxidans. Journal of the Brazilian Chemical Society, 2003, 14, 637-644.	0.6	22
61	Building Nanoscale Molecular Wires Exploiting Electrocatalytic Interactions. Electrochimica Acta, 2015, 179, 611-617.	2.6	19
62	<i>Ab initio</i> electronic structure calculations of entire blue copper azurins. Physical Chemistry Chemical Physics, 2018, 20, 30392-30402.	1.3	19
63	Tuning Singleâ€Molecule Conductance in Metalloporphyrinâ€Based Wires via Supramolecular Interactions. Angewandte Chemie - International Edition, 2020, 59, 19193-19201.	7.2	19
64	Mechanical Tuning of Throughâ€Molecule Conductance in a Conjugated Calix[4]pyrrole. ChemistrySelect, 2018, 3, 6473-6478.	0.7	18
65	An electrochemical study of tin oxide thin film in borate buffer solutions. Journal of the Brazilian Chemical Society, 2003, 14, 523-529.	0.6	17
66	Tuning Structure and Dynamics of Blue Copper Azurin Junctions via Single Amino-Acid Mutations. Biomolecules, 2019, 9, 611.	1.8	16
67	Mechanical Deformation and Electronic Structure of a Blue Copper Azurin in a Solid-State Junction. Biomolecules, 2019, 9, 506.	1.8	16
68	Electrochemically Grown Tin Oxide Thin Films:â€‰ In Situ Characterization of Electronic Properties and Growth Mechanism. Journal of Physical Chemistry B, 2004, 108, 8173-8181.	1.2	15
69	Differential Electrochemical Conductance Imaging at the Nanoscale. Small, 2017, 13, 1700958.	5.2	14
70	Self-Assembly of Drugâ€“Polymer Complexes: A Spontaneous Nanoencapsulation Process Monitored by Atomic Force Microscopy**This work was presented in part at the 13th International Symposium on Microencapsulation, September 5â€“7, 2001, Angers, France.. Journal of Pharmaceutical Sciences, 2003, 92, 77-83.	1.6	13
71	Dielectric properties of self-assembled layers of octadecylamine on mica in dry and humid environments. Journal of Chemical Physics, 2005, 123, 104706.	1.2	12
72	An Intramolecular Oâˆ’N Migration Reaction on Gold Surfaces: Toward the Preparation of Well-Defined Amyloid Surfaces. ACS Nano, 2009, 3, 3091-3097.	7.3	11

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73	Tuning Single-Molecule Conductance by Controlled Electric Field-Induced trans-to-cis Isomerisation. Applied Sciences (Switzerland), 2021, 11, 3317.	1.3	11
74	Roomâ€Temperature Spinâ€Dependent Transport in Metalloporphyrinâ€Based Supramolecular Wires. Angewandte Chemie - International Edition, 2021, 60, 25958-25965.	7.2	9
75	Electrochemically Gated Longâ€Distance Charge Transport in Photosystemâ€…I. Angewandte Chemie - International Edition, 2019, 58, 13280-13284.	7.2	8
76	Surface thermodynamic properties of monolayers versus reconstitution of a membrane protein in solid-supported bilayers. Colloids and Surfaces B: Biointerfaces, 2005, 44, 93-98.	2.5	7
77	Sequential atomic force microscopy imaging of a spontaneous nanoencapsulation process. International Journal of Pharmaceutics, 2002, 242, 291-294.	2.6	6
78	Time-Lapse Atomic Force Microscopy Observations of the Morphology, Growth Rate, and Spontaneous Alignment of Nanofibers Containing a Peptide-Amphiphile from the Hepatitis G Virus (NS3 Protein). Journal of Physical Chemistry B, 2010, 114, 620-625.	1.2	5
79	Role of Ring <i>Ortho</i> Substituents on the Configuration of Carotenoid Polyene Chains. Organic Letters, 2018, 20, 493-496.	2.4	5
80	Tuning Singleâ€Molecule Conductance in Metalloporphyrinâ€Based Wires via Supramolecular Interactions. Angewandte Chemie, 2020, 132, 19355-19363.	1.6	5
81	Roomâ€Temperature Spinâ€Dependent Transport in Metalloporphyrinâ€Based Supramolecular Wires. Angewandte Chemie, 2021, 133, 26162-26169.	1.6	5
82	Measuring energies with an Atomic Force Microscope. Europhysics Letters, 2006, 74, 110-116.	0.7	4
83	Formation of an epitaxial monolayer on graphite upon short-time surface contact with highly diluted aqueous solutions of 1-monostearoylglycerol. Thin Solid Films, 2007, 515, 5391-5394.	0.8	3
84	Electrochemistry of Tin in Borate Buffer Solutions: An in-situ Raman study.. Materials Research Society Symposia Proceedings, 2003, 781, 131.	0.1	1
85	Interaction of lipidated GBV-C/HGV NS3 (513â€"522) and (505â€"514) peptides with phospholipids monolayer. An AFM study. Colloids and Surfaces B: Biointerfaces, 2010, 75, 25-33.	2.5	1
86	Diving in Solid/Liquid Nanointerfaces. Imaging & Microscopy, 2007, 9, 61-62.	0.1	0
87	Electrochemically Gated Longâ€Distance Charge Transport in Photosystemâ€…I. Angewandte Chemie, 2019, 131, 13414-13418.	1.6	0
88	The NJ Tao We Knew. ACS Sensors, 2021, 6, 285-289.	4.0	0