

Jean-Christophe Lacroix

List of Publications by Year in descending order

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81
papers

2,847
citations

159585

30
h-index

182427

51
g-index

83
all docs

83
docs citations

83
times ranked

2865
citing authors

#	ARTICLE	IF	CITATIONS
1	Improvement of the Electrosynthesis and Physicochemical Properties of Poly(3,4-ethylenedioxythiophene) Using a Sodium Dodecyl Sulfate Micellar Aqueous Medium. <i>Langmuir</i> , 1999, 15, 2566-2574.	3.5	318
2	Activationless charge transport across 4.5 to 22 nm in molecular electronic junctions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 5326-5330.	7.1	149
3	Conducting Polymer Electrochemical Switching as an Easy Means for Designing Active Plasmonic Devices. <i>Journal of the American Chemical Society</i> , 2005, 127, 16022-16023.	13.7	122
4	Tunable Electrochemical Switch of the Optical Properties of Metallic Nanoparticles. <i>ACS Nano</i> , 2008, 2, 728-732.	14.6	102
5	Giant Plasmon Resonance Shift Using Poly(3,4-ethylenedioxythiophene) Electrochemical Switching. <i>Journal of the American Chemical Society</i> , 2010, 132, 10224-10226.	13.7	101
6	Ultrafast Electrosynthesis of High Hydrophobic Polypyrrole Coatings on a Zinc Electrode: Applications to the Protection against Corrosion. <i>Chemistry of Materials</i> , 2008, 20, 4447-4456.	6.7	78
7	Grafting Oligothiophenes on Surfaces by Diazonium Electroreduction: A Step toward Ultrathin Junction with Well-Defined Metal/Oligomer Interface. <i>Journal of the American Chemical Society</i> , 2009, 131, 14920-14927.	13.7	76
8	Tunable Electrochemical Switches Based on Ultrathin Organic Films. <i>Journal of the American Chemical Society</i> , 2007, 129, 1890-1891.	13.7	75
9	Direct Observation of Large Quantum Interference Effect in Anthraquinone Solid-State Junctions. <i>Journal of the American Chemical Society</i> , 2013, 135, 10218-10221.	13.7	72
10	Control of Electronic Symmetry and Rectification through Energy Level Variations in Bilayer Molecular Junctions. <i>Journal of the American Chemical Society</i> , 2016, 138, 12287-12296.	13.7	70
11	Active Plasmonic Devices with Anisotropic Optical Response: A Step Toward Active Polarizer. <i>Nano Letters</i> , 2009, 9, 2144-2148.	9.1	68
12	Electrografting Polyaniline on Carbon through the Electroreduction of Diazonium Salts and the Electrochemical Polymerization of Aniline. <i>Journal of Physical Chemistry C</i> , 2008, 112, 16103-16109.	3.1	65
13	Electroactive Poly(aromatic amine) Films for Iron Protection in Sulfate Medium. <i>Journal of the Electrochemical Society</i> , 2001, 148, B121.	2.9	64
14	Intrachain Electron Transfer in Conducting Oligomers and Polymers: The Mixed Valence Approach. <i>Journal of the American Chemical Society</i> , 2006, 128, 7264-7276.	13.7	64
15	Organic Electrodes Based on Grafted Oligothiophene Units in Ultrathin, Large-Area Molecular Junctions. <i>Journal of the American Chemical Society</i> , 2012, 134, 154-157.	13.7	64
16	Ionic Liquid Viscosity Effects on the Functionalization of Electrode Material through the Electroreduction of Diazonium. <i>Langmuir</i> , 2010, 26, 18542-18549.	3.5	62
17	Control of Rectification in Molecular Junctions: Contact Effects and Molecular Signature. <i>Journal of the American Chemical Society</i> , 2017, 139, 11913-11922.	13.7	61
18	Unprecedented Self-Organized Monolayer of a Ru(II) Complex by Diazonium Electroreduction. <i>Journal of the American Chemical Society</i> , 2016, 138, 9381-9384.	13.7	60

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19	Highly Efficient Photoswitch in Diarylethene-Based Molecular Junctions. <i>Journal of the American Chemical Society</i> , 2020, 142, 7732-7736.	13.7	60
20	Plasmon-Induced Nanolocalized Reduction of Diazonium Salts. <i>ACS Omega</i> , 2017, 2, 1947-1955.	3.5	59
21	Robust Bipolar Light Emission and Charge Transport in Symmetric Molecular Junctions. <i>Journal of the American Chemical Society</i> , 2017, 139, 7436-7439.	13.7	55
22	Highly Efficient Long-Range Electron Transport in a Viologen-Based Molecular Junction. <i>Journal of the American Chemical Society</i> , 2018, 140, 10131-10134.	13.7	54
23	Modification of carbon electrode in ionic liquid through the reduction of phenyl diazonium salt. Electrochemical evidence in ionic liquid. <i>Electrochemistry Communications</i> , 2008, 10, 1060-1063.	4.7	47
24	Electrochemical Switches Based on Ultrathin Organic Films: From Diode-like Behavior to Charge Transfer Transparency. <i>Journal of Physical Chemistry C</i> , 2008, 112, 18638-18643.	3.1	46
25	Electrosynthesis of well-organized nanoporous poly(3,4-ethylenedioxythiophene) by nanosphere lithography. <i>Electrochemistry Communications</i> , 2010, 12, 872-875.	4.7	39
26	Formation of Mixed Organic Layers by Stepwise Electrochemical Reduction of Diazonium Compounds. <i>Journal of the American Chemical Society</i> , 2012, 134, 5476-5479.	13.7	39
27	Conducting Polymer Electrochemical Switching as an Easy Means for Control of the Molecular Properties of Grafted Transition Metal Complexes. <i>Chemistry - A European Journal</i> , 2001, 7, 5029-5040.	3.3	36
28	Host-Guest Complexation: A Convenient Route for the Electroreduction of Diazonium Salts in Aqueous Media and the Formation of Composite Materials. <i>Journal of the American Chemical Society</i> , 2010, 132, 1690-1698.	13.7	36
29	Tunable Plasmon Resonance of Gold Nanoparticles Functionalized by Electroactive Bisthiénylbenzene Oligomers or Polythiophene. <i>Journal of Physical Chemistry C</i> , 2014, 118, 25158-25166.	3.1	36
30	Grafting of π -Conjugated Oligomers Incorporating 3,4-Ethylenedioxythiophene (EDOT) and Thiophene Units on Surfaces by Diazonium Electroreduction. <i>Journal of Physical Chemistry C</i> , 2015, 119, 19218-19227.	3.1	35
31	Highly Resolved Nanostructured PEDOT on Large Areas by Nanosphere Lithography and Electrodeposition. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 21673-21681.	8.0	33
32	Surface patterning based on nanosphere lithography and electroreduction of in situ generated diazonium cation. <i>Electrochemistry Communications</i> , 2012, 18, 20-23.	4.7	27
33	Molecular Signature and Activationless Transport in Cobalt-Terpyridine-Based Molecular Junctions. <i>Advanced Electronic Materials</i> , 2020, 6, 1901416.	5.1	27
34	Polyaniline electrodeposition from neutral aqueous media: Application to the deposition on oxidizable metals. <i>Synthetic Metals</i> , 1999, 102, 1388-1389.	3.9	26
35	When Electron Transfer Meets Electron Transport in Redox-Active Molecular Nanojunctions. <i>Journal of the American Chemical Society</i> , 2013, 135, 2108-2111.	13.7	26
36	Electrochemistry does the impossible: Robust and reliable large area molecular junctions. <i>Current Opinion in Electrochemistry</i> , 2018, 7, 153-160.	4.8	26

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37	Long-Range Charge Transport in Diazonium-Based Single-Molecule Junctions. <i>Nano Letters</i> , 2020, 20, 6899-6907.	9.1	26
38	Micro/Nano-Structured Polypyrrole Surfaces on Oxidizable Metals as Smart Electroswitchable Coatings. <i>ACS Applied Materials & Interfaces</i> , 2013, 5, 10159-10164.	8.0	25
39	Improved adhesion of poly(3,4-ethylenedioxythiophene) (PEDOT) thin film to solid substrates using electrografted promoters and application to efficient nanoplasmonic devices. <i>Synthetic Metals</i> , 2019, 248, 45-52.	3.9	25
40	Electrografted monolayer based on a naphthalene diimide–ruthenium terpyridine complex dyad: efficient creation of large-area molecular junctions with high current densities. <i>Chemical Communications</i> , 2017, 53, 10997-11000.	4.1	23
41	Combining Photomodulation and Rectification in Coordination Molecular Wires Based on Dithienylethene Molecular Junctions. <i>Journal of Physical Chemistry C</i> , 2020, 124, 26304-26309.	3.1	22
42	Nanometric building blocks for robust multifunctional molecular junctions. <i>Nanoscale Horizons</i> , 2018, 3, 45-52.	8.0	20
43	Synthesis of nitro- and amino-functionalized π -conjugated oligomers incorporating 3,4-ethylenedioxythiophene (EDOT) units. <i>Tetrahedron</i> , 2013, 69, 861-866.	1.9	19
44	Tuning the thickness of electrochemically grafted layers in large area molecular junctions. <i>Journal of Applied Physics</i> , 2014, 116, 114509.	2.5	16
45	Large-area plasmonic electrodes and active plasmonic devices generated by electrochemical processes. <i>Electrochimica Acta</i> , 2015, 179, 282-287.	5.2	16
46	Orbital Control of Long-Range Transport in Conjugated and Metal-Centered Molecular Electronic Junctions. <i>Journal of Physical Chemistry C</i> , 2018, 122, 29028-29038.	3.1	16
47	One-Dimensional Double Wires and Two-Dimensional Mobile Grids: Cobalt/Bipyridine Coordination Networks at the Solid/Liquid Interface. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 4164-4169.	4.6	16
48	From active plasmonic devices to plasmonic molecular electronics. <i>Polymer International</i> , 2019, 68, 607-619.	3.1	16
49	Electrochemical Fabrication of Highly Stable Redox-Active Nanojunctions. <i>Analytical Chemistry</i> , 2011, 83, 9709-9714.	6.5	14
50	Molecular Isomerization and Multiscale Phase Transitions of a Ditopic Ligand on a Surface. <i>Journal of Physical Chemistry C</i> , 2017, 121, 20925-20930.	3.1	14
51	Plasmon-Induced Conductance Switching of an Electroactive Conjugated Polymer Nanojunction. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 27817-27824.	8.0	14
52	Ultrathin Molecular Layer Junctions Based on Cyclometalated Ruthenium Complexes. <i>Journal of Physical Chemistry C</i> , 2018, 122, 29069-29074.	3.1	14
53	Unprecedented ON/OFF Ratios in Photoactive Diarylethene-Bisthienylbenzene Molecular Junctions. <i>Nano Letters</i> , 2021, 21, 7555-7560.	9.1	14
54	Ordered Nanoporous Thin Films by Nanosphere Lithography and Diazonium Electroreduction: Simple Elaboration of Ultra-Micro-Electrode Arrays. <i>ChemElectroChem</i> , 2016, 3, 2264-2269.	3.4	13

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55	Single-Molecule Junctions with Highly Improved Stability. <i>Nano Letters</i> , 2021, 21, 6540-6548.	9.1	12
56	Supramolecular Networks and Wires Dominated by Intermolecular BiEDOT Interactions. <i>Journal of Physical Chemistry C</i> , 2018, 122, 22760-22766.	3.1	11
57	Nanostructured Mixed Layers of Organic Materials Obtained by Nanosphere Lithography and Electrochemical Reduction of Aryldiazonium Salts. <i>Langmuir</i> , 2019, 35, 15071-15077.	3.5	10
58	Unipolar Injection and Bipolar Transport in Electroluminescent Ru-Centered Molecular Electronic Junctions. <i>Journal of Physical Chemistry C</i> , 2019, 123, 29162-29172.	3.1	10
59	Plasmon-Induced Grafting in the Gap of Gold Nanoparticle Dimers for Plasmonic Molecular Junctions. <i>ACS Applied Nano Materials</i> , 2020, 3, 7789-7794.	5.0	10
60	Approaching the Frontier Between Fiber Devices and Single Molecule Devices in Redox Gated Junction. <i>Journal of Physical Chemistry C</i> , 2015, 119, 21278-21285.	3.1	8
61	Tailored Surfaces/Assemblies for Molecular Plasmonics and Plasmonic Molecular Electronics. <i>Annual Review of Analytical Chemistry</i> , 2017, 10, 201-224.	5.4	8
62	Poly(3,4-bis(N-ethyloxamyl)terthiophene): A new functionalized conductive polymer with tunable pendent ethyloxamyl substituents. <i>Physical Chemistry Chemical Physics</i> , 1999, 1, 2755-2760.	2.8	7
63	Bottom-Up Electrochemical Fabrication of Conjugated Ultrathin Layers with Tailored Switchable Properties. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 610-617.	8.0	7
64	Comparing plasmonic electrodes prepared by electron-beam lithography and electrochemical reduction of an Au (iii) salt: application in active plasmonic devices. <i>Advances in Natural Sciences: Nanoscience and Nanotechnology</i> , 2016, 7, 015005.	1.5	6
65	Multi-functional switches of ditopic ligands with azobenzene central bridges at a molecular scale. <i>Nanoscale</i> , 2019, 11, 23042-23048.	5.6	6
66	Confinement Effect of Plasmon for the Fabrication of Interconnected AuNPs through the Reduction of Diazonium Salts. <i>Nanomaterials</i> , 2021, 11, 1957.	4.1	6
67	Charge injection and transport properties of large area organic junctions based on aryl thin films covalently attached to a multilayer graphene electrode. <i>Nanoscale Advances</i> , 2019, 1, 414-420.	4.6	5
68	Self-terminated fabrication of electrochemically-gated conducting polymer nanojunctions. <i>Electrochemistry Communications</i> , 2020, 112, 106674.	4.7	4
69	On-Surface Dimerization and Coordination of 4-(Bis-ethylenedioxythiophene)benzoic Acid. <i>Journal of Physical Chemistry C</i> , 2021, 125, 957-963.	3.1	4
70	Nanometer-Thick Bilayers by Stepwise Electrochemical Reduction of Diazonium Compounds for Molecular Junctions. <i>ACS Applied Nano Materials</i> , 2021, 4, 13861-13870.	5.0	4
71	Multiscale organization of a size gradient of gold nanoparticles in a honeycomb structure network. <i>Electrochemistry Communications</i> , 2019, 102, 63-66.	4.7	3
72	Dithienylpyrrole Electrografting on a Surface through the Electroreduction of Diazonium Salts. <i>Electrochem</i> , 2020, 1, 20-31.	3.3	3

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73	Large-area in plane molecular junctions by electrografting in 10 nm metallic nanotrenches. AIP Advances, 2020, 10, .	1.3	3
74	Insights on asymmetric BTB-based molecular junctions: Effect of electrode coupling. Chemical Physics Letters, 2022, 787, 139273.	2.6	3
75	Visualization and Comprehension of Electronic and Topographic Contrasts on Cooperatively Switched Diarylethene-Bridged Ditopic Ligand. Nanomaterials, 2022, 12, 1318.	4.1	3
76	Electrochemical and Plasmon-Induced Grafting of n-Dopable π -Conjugated Oligomers. ChemElectroChem, 2021, 8, 2512-2518.	3.4	2
77	[2+2] Cyclo-Addition Reactions for Efficient Polymerization on a HOPG Surface at Ambient Conditions. Nanomaterials, 2022, 12, 1334.	4.1	2
78	Long-Range Plasmon-Induced Anisotropic Growth of an Organic Semiconductor between Isotropic Gold Nanoparticles. Nano Letters, 2022, 22, 4253-4259.	9.1	2
79	Fabrication of Polyaniline (PANI) through Parallel Nanopores: Charge Transport Properties of PANI@SiO ₂ Nanopore Molecular Junctions. ECS Journal of Solid State Science and Technology, 2022, 11, 065009.	1.8	2
80	From Multi-Switchable Self-Assemblies towards Surface Coordination Chemistry: An STM Investigation of Bipyridine-Terminated Ditopic Ligands. ECS Journal of Solid State Science and Technology, 2022, 11, 055007.	1.8	1
81	Tuning ON/OFF Ratios in Diarylethene-Based Single- and Bilayer Molecular Junctions. ECS Journal of Solid State Science and Technology, 0, , .	1.8	0