FrÃ©dÃ©ric BarriÃ¨re

List of Publications by Year
in descending order

96 papers	4,601 citations	126708 33 h-index	102304 66 g-index
105 all docs	105 docs citations	105 times ranked	5018 citing authors

#	Article	IF	Citations
1	Use of Weakly Coordinating Anions to Develop an Integrated Approach to the Tuning of Î”E1/2Values by Medium Effects. Journal of the American Chemical Society, 2006, 128, 3980-3989.	6.6	470
2	The ins and outs of microorganismâ€“electrode electron transfer reactions. Nature Reviews Chemistry, 2017, 1, .	13.8	385
3	Organometallic Electrochemistry Based on Electrolytes Containing Weakly-Coordinating Fluoroarylborate Anions. Accounts of Chemical Research, 2010, 43, 1030-1039.	7.6	288
4	Use of Medium Effects to Tune the Î”E1/2 Values of Bimetallic and Oligometallic Compounds. Journal of the American Chemical Society, 2002, 124, 7262-7263.	6.6	276
5	A laccaseâ€“glucose oxidase biofuel cell prototype operating in a physiological buffer. Electrochimica Acta, 2006, 51, 5187-5192.	2.6	195
6	Bacteria and yeasts as catalysts in microbial fuel cells: electron transfer from micro-organisms to electrodes for green electricity. Energy and Environmental Science, 2008, 1, 607.	15.6	184
7	Covalent modification of graphitic carbon substrates by non-electrochemical methods. Journal of Solid State Electrochemistry, 2008, 12, 1231-1244.	1.2	155
8	Targetting redox polymers as mediators for laccase oxygen reduction in a membrane-less biofuel cell. Electrochemistry Communications, 2004, 6, 237-241.	2.3	150
9	Dispirofluoreneâ€“Indenofluorene Derivatives as New Building Blocks for Blue Organic Electroluminescent Devices and Electroactive Polymers. Chemistry - A European Journal, 2007, 13, 10055-10069.	1.7	131
10	An improved microbial fuel cell with laccase as the oxygen reduction catalyst. Energy and Environmental Science, 2009, 2, 96-99.	15.6	109
11	Graphite anode surface modification with controlled reduction of specific aryl diazonium salts for improved microbial fuel cells power output. Biosensors and Bioelectronics, 2011, 28, 181-188.	5.3	109
12	Identifying charge and mass transfer resistances of an oxygen reducing biocathode. Energy and Environmental Science, 2011, 4, 5035.	15.6	107
13	A single sediment-microbial fuel cell powering a wireless telecommunication system. Journal of Power Sources, 2013, 241, 703-708.	4.0	105
14	Modeling of the molybdenum center in the nitrogenase FeMo-cofactor. Coordination Chemistry Reviews, 2003, 236, 71-89.	9.5	93
15	Designing Stable Redox-Active Surfaces: Chemical Attachment of an Osmium Complex to Glassy Carbon Electrodes Prefunctionalized by Electrochemical Reduction of an In Situ-Generated Aryldiazonium Cation. Langmuir, 2008, 24, 6351-6358.	1.6	77
16	New 3Ï€â€2Spiro Ladderâ€Type Phenylene Materials: Synthesis, Physicochemical Properties and Applications in OLEDs. Chemistry - A European Journal, 2008, 14, 11328-11342.	1.7	73
17	Characterisation of yeast microbial fuel cell with the yeast Arxula adeninivorans as the biocatalyst. Biosensors and Bioelectronics, 2011, 26, 3742-3747.	5.3	73
18	Anodic Electrochemistry of Multiferrocenyl Phosphine and Phosphine Chalcogenide Complexes in Weakly Nucleophilic Electrolytes. Organometallics, 2005, 24, 48-52.	1.1	70

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19	Improved stability of redox enzyme layers on glassy carbon electrodes via covalent grafting. Electrochemistry Communications, 2008, 10, 835-838.	2.3	65
20	Violetâ€toâ€Blue Tunable Emission of Arylâ€Substituted Dispirofluoreneâ€“Indenofluorene Isomers by Conformationallyâ€Controllable Intramolecular Excimer Formation. Chemistry - A European Journal, 2011, 17, 10272-10287.	1.7	65
21	New Dispiro Compounds:â€‰ Synthesis and Properties. Organic Letters, 2008, 10, 373-376.	2.4	52
22	(2,1â€a)â€Indenofluorene Derivatives: Syntheses, Xâ€ray Structures, Optical and Electrochemical Properties. Chemistry - A European Journal, 2010, 16, 13646-13658.	1.7	52
23	Blue Emitting 3â€‰Ïâ€“2â€‰Spiro Terfluoreneâ€“Indenofluorene Isomers: A Structureâ€“Properties Relationship Study. Chemistry - A European Journal, 2011, 17, 14031-14046.	1.7	51
24	Tuning the Optical Properties of Aryl-Substituted Dispirofluorene-Indenofluorene Isomers through Intramolecular Excimer Formation. Organic Letters, 2009, 11, 4794-4797.	2.4	50
25	Enzymatic versus Microbial Bioâ€Catalyzed Electrodes in Bioâ€Electrochemical Systems. ChemSusChem, 2012, 5, 995-1005.	3.6	50
26	A robust pure hydrocarbon derivative based on the (2,1-b)-indenofluorenyl core with high triplet energy level. Chemical Communications, 2011, 47, 11703.	2.2	48
27	Monophyletic group of unclassified Î³- Proteobacteria dominates in mixed culture biofilm of high-performing oxygen reducing biocathode. Bioelectrochemistry, 2015, 106, 167-176.	2.4	48
28	Electropolymerizable 2,2â€²-Carboranyldithiophenes. Structureâˆ'Property Investigations of the Corresponding Conducting Polymer Films by Electrochemistry, UVâˆ'Visible Spectroscopy and Conducting Probe Atomic Force Microscopy. Macromolecules, 2009, 42, 2981-2987.	2.2	46
29	Between Ni(mnt)2and Ni(tfd)2Dithiolene Complexes:Â the Unsymmetrical 2-(Trifluoromethyl)acrylonitrile-1,2-dithiolate and Its Nickel Complexes. Inorganic Chemistry, 2005, 44, 9763-9770.	1.9	42
30	Encumbered DiSpiro[Fluoreneâ€“IndenoFluorene]: Mechanistic Insights. Chemistry - A European Journal, 2009, 15, 13304-13307.	1.7	39
31	Phenylboronic Acid Modified Anodes Promote Faster Biofilm Adhesion and Increase Microbial Fuel Cell Performances. Electroanalysis, 2013, 25, 601-605.	1.5	38
32	Advanced electrokinetic characterization of composite porous membranes. Journal of Membrane Science, 2013, 429, 44-51.	4.1	37
33	Persistent Mixedâ€Valence [(TTF)₂]^{+.} Dyad of a Chiral Bis(binaphthol)â€“tetrathiafulvalene (TTF) Derivative. Chemistry - A European Journal, 2010, 16, 8020-8028.	1.7	36
34	Redox-Active Molecular Wires Derived from Dinuclear Ferrocenyl/Ruthenium(II) Alkynyl Complexes: Covalent Attachment to Hydrogen-Terminated Silicon Surfaces. Journal of Physical Chemistry C, 2014, 118, 3680-3695.	1.5	33
35	Electrochemical deprotection of a substrate binding site in [Mo2(cp)2(Âµ-SMe)3(Âµ-Cl)](cp =Î·5-C5H5)via chloride-bridge opening. Kinetics of MeCN and ButNC binding at this site. Journal of the Chemical Society Dalton Transactions, 1996, , 3967-3976.	1.1	32
36	On the Electrochemical Preparation of the Neutral Complexes M[S4C4(CN)4], M(mnt)2, M = Ni, Pd, Pt. Inorganic Chemistry, 2001, 40, 2472-2473.	1.9	31

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37	Optimized Preparation and Scanning Electrochemical Microscopy Analysis in Feedback Mode of Glucose Oxidase Layers Grafted onto Conducting Carbon Surfaces. Langmuir, 2008, 24, 9089-9095.	1.6	31
38	Polythiophenes Containing In-Chain Cobaltabisdicarbollide Centers. ACS Applied Materials & Interfaces, 2010, 2, 691-702.	4.0	29
39	Influence of inoculum and anode surface properties on the selection of Geobacter -dominated biofilms. Bioresource Technology, 2015, 195, 265-272.	4.8	29
40	Electronic communication between metalâ€“organic electrophores in an organometallic rutheniumâ€“acetylideâ€“tetrathiafulvalene complex. Chemical Communications, 2009, , 7200.	2.2	28
41	Preparation of chiral ruthenium(iv) complexes and applications in regio- and enantioselective allylation of phenols. Dalton Transactions, 2011, 40, 5625.	1.6	25
42	Lipid Membrane Permeability of Synthetic Redox DMPC Liposomes Investigated by Single Electrochemical Collisions. Analytical Chemistry, 2020, 92, 2401-2408.	3.2	24
43	Redox Multifunctionality in a Series of Pt^{II} Dithiolene Complexes of a Tetrathiafulvaleneâ€Based Diphosphine Ligand. Chemistry - an Asian Journal, 2010, 5, 169-176.	1.7	23
44	Sequential Halogen Bonding with Ditopic Donors: Ïƒ-Hole Evolutions upon Halogen Bond Formation. Crystal Growth and Design, 2016, 16, 2963-2971.	1.4	23
45	Denitrifying bio-cathodes developed from constructed wetland sediments exhibit electroactive nitrate reducing biofilms dominated by the genera Azoarcus and Pontibacter. Bioelectrochemistry, 2021, 140, 107819.	2.4	22
46	Cis and trans-bis(tetrathiafulvalene-acetylide) platinum(<scp>ii</scp>) complexes: syntheses, crystal structures, and influence of the ancillary ligands on their electronic properties. Dalton Transactions, 2013, 42, 383-394.	1.6	21
47	Anodic oxidation of indenofluorene. Electrodeposition of electroactive poly(indenofluorene). New Journal of Chemistry, 2008, 32, 1259.	1.4	20
48	pH and Temperature Determine Performance of Oxygen Reducing Biocathodes. Electroanalysis, 2013, 25, 652-655.	1.5	20
49	Redox bifunctionality in a Pt(ii) dithiolene complex of a tetrathiafulvalene diphosphine ligand. Dalton Transactions, 2008, , 5869.	1.6	19
50	Reductive electrografting of in situ produced diazopyridinium cations: Tailoring the interface between carbon electrodes and electroactive bacterial films. Bioelectrochemistry, 2018, 120, 157-165.	2.4	19
51	On the nature of the electrode surface modification by cathodic reduction of tetraarylporphyrin diazonium salts in aqueous media. Electrochemistry Communications, 2012, 20, 167-170.	2.3	18
52	Ferrocene and Tetrathiafulvalene Redox Interplay across a Bis-acetylideâ€“Ruthenium Bridge. Organometallics, 2013, 32, 6130-6135.	1.1	18
53	Extended HÃ¼ckel calculations on functional and structural models of the FeMo-cofactor of nitrogenase. Polyhedron, 2001, 20, 27-36.	1.0	17
54	Variable Magnetic Interactions between S = 1/2 Cation Radical Salts of Functionalizable Electron-Rich Dithiolene and Diselenolene Cp₂Mo Complexes. Inorganic Chemistry, 2013, 52, 2162-2173.	1.9	17

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55	Halogen bonded metal bis(dithiolene) 2D frameworks. CrystEngComm, 2020, 22, 3579-3587.	1.3	17
56	A versatile route to modify polyethersulfone membranes by chemical reduction of aryldiazonium salts. Journal of Membrane Science, 2012, 417-418, 131-136.	4.1	16
57	Electrostatic Modeling of the Tunable Potential Difference between the Two Consecutive Oxidation Steps of Dinickel Bisfulvalene. Organometallics, 2014, 33, 5046-5048.	1.1	15
58	A sulfur rich electron acceptor and its [Fe(Cp*)2]+ charge transfer salt with ferromagnetic interactions. Dalton Transactions, 2013, 42, 16672.	1.6	14
59	A sulfur-rich Ï€-electron acceptor derived from 5,5â€²-bithiazolidinylidene: charge-transfer complex vs. charge-transfer salt. CrystEngComm, 2016, 18, 3925-3933.	1.3	14
60	Cî€Sâ‹¯I halogen bonding interactions in crystalline iodinated dithiole-2-thiones and thiazole-2-thiones. CrystEngComm, 2016, 18, 5474-5481.	1.3	14
61	Electrochemical Activation of TTFâ€Based Halogen Bond Donors: A Powerful, Selective and Sensitive Analytical Tool for Probing a Weak Interaction in Complex Media. ChemistrySelect, 2018, 3, 8874-8880.	0.7	14
62	Tailored glycosylated anode surfaces: Addressing the exoelectrogen bacterial community via functional layers for microbial fuel cell applications. Bioelectrochemistry, 2020, 136, 107621.	2.4	14
63	Dependence of catalytic activity and long-term stability of enzyme hydrogel films on curing time. Bioelectrochemistry, 2010, 79, 142-146.	2.4	13
64	Interplay between Organicâ€“Organometallic Electrophores within Bis(cyclopentadienyl)Molybdenum Dithiolene Tetrathiafulvalene Complexes. Inorganic Chemistry, 2015, 54, 5013-5020.	1.9	13
65	Electrochemical Detection of pH-Responsive Grafted Catechol and Immobilized Cytochromeconto Lipid Deposit-Modified Glassy Carbon Surface. ACS Omega, 2018, 3, 9035-9042.	1.6	13
66	Communicationâ€”Electrochemical Single Nano-Impacts of Electroactive Shewanella Oneidensis Bacteria onto Carbon Ultramicroelectrode. Journal of the Electrochemical Society, 2020, 167, 105501.	1.3	13
67	Generation of the 15-Electron Rhodium(II) Complex [RhCl(PPh3)3]+by 1-Electron Oxidation of Wilkinson's Catalyst. Organometallics, 2001, 20, 2133-2135.	1.1	11
68	SECM imaging of micropatterned organic films on carbon surfaces. Electrochemistry Communications, 2007, 9, 2387-2392.	2.3	11
69	Covalent immobilization and SECM analysis in feedback mode of glucose oxidase on a modified oxidized silicon surface. Journal of Electroanalytical Chemistry, 2009, 628, 144-147.	1.9	11
70	An optimal surface concentration of pure cardiolipin deposited onto glassy carbon electrode promoting the direct electron transfer of cytochrome-c. Journal of Electroanalytical Chemistry, 2018, 808, 286-292.	1.9	11
71	Experimental and theoretical insights into the sequential oxidations of 3Ï€-2spiro molecules derived from oligophenylenes: A comparative study of 1,2-b-DiSpiroFluorene-IndenoFluorene versus 1,2-b-DiSpiroFluorene(tert-butyl)4-IndenoFluorene. Electrochimica Acta, 2013, 110, 735-740.	2.6	9
72	Electronic Interplay between TTF and Extended-TCNQ Electrophores along a Ruthenium Bis(acetylide) Linker. Organic Letters, 2017, 19, 6060-6063.	2.4	9

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73	Ambipolar Discotic Liquid Crystals Built Around Platinum Diimineâ€Dithiolene Cores. Chemistry - A European Journal, 2019, 25, 5719-5732.	1.7	9
74	Exo-iron centres linked to MoFeS clusters. Journal of the Chemical Society Dalton Transactions, 1999, , 957-964.	1.1	8
75	Nanoscaffold effects on the performance of air-cathodes for microbial fuel cells: Sustainable Fe/N-carbon electrocatalysts for the oxygen reduction reaction under neutral pH conditions. Bioelectrochemistry, 2021, 142, 107937.	2.4	8
76	Tetrathiafulvalene hydrazone: efficient synthon for the synthesis of novel bidentate redox active ligands. Tetrahedron Letters, 2010, 51, 4497-4500.	0.7	7
77	Electrochemical properties of pH-dependent flavocytochrome c3 from Shewanella putrefaciens adsorbed onto unmodified and catechol-modified edge plane pyrolytic graphite electrode. Journal of Electroanalytical Chemistry, 2019, 847, 113232.	1.9	7
78	Trifluoromethyl-substituted tetrathiafulvalenes. Beilstein Journal of Organic Chemistry, 2015, 11, 647-658.	1.3	6
79	Electronic Communication within Flexible Bisdithiolene Ligands Bridging Molybdenum Centers. Organometallics, 2019, 38, 4399-4408.	1.1	6
80	Cyclization of Terphenylâ€Bisfluorenols: A Mechanistic Study of the Regioselectvity. Chemistry - A European Journal, 2019, 25, 10689-10697.	1.7	6
81	Halogen and chalcogen-bonding interactions in sulphur-rich Ï€-electron acceptors. CrystEngComm, 2019, 21, 1934-1939.	1.3	6
82	A radical mixed-ligand gold bis(dithiolene) complex. Chemical Communications, 2021, 57, 1615-1618.	2.2	4
83	Introducing Selenium in Single-Component Molecular Conductors Based on Nickel Bis(dithiolene) Complexes. Inorganic Chemistry, 2021, 60, 7876-7886.	1.9	4
84	Electrochemical dehydrodimerisation of a vinylenylamide ligand: formation of the binuclear group {Moî€‡N+CHî€†CHCHî€†CHCHî€†CHN+î€‡Mo} which displays very strong electronic coupling in the {(MoIII)â€“(MoV)} mixed-valence state. Chemical Communications, 1998, , 675-676.	2.2	3
85	Powering fuel cells through biocatalysis. , 2008, , 385-410.		3
86	Conformational behavior, redox and spectroscopic properties of gold dithiolene complexes: [Au(iPr-thiazYdt)2]â¯1 (Y = O, S, Se). Inorganica Chimica Acta, 2018, 469, 255-263.	1.2	3
87	Simulation of SAXS patterns of hexa-n-alkoxy-2,3,6,7,10,11-triphenylene mesophase. Liquid Crystals, 2018, 45, 698-702.	0.9	3
88	Direct SN1 reaction at oxidized PPF surfaces. Electrochemistry Communications, 2017, 75, 48-51.	2.3	2
89	Assisted lipid deposition by reductive electrochemical aryldiazonium grafting and insertion of the antiport NhaA protein in this stable biomimetic membrane. Colloids and Surfaces B: Biointerfaces, 2020, 190, 110924.	2.5	2
90	Controlling the Carbon-Bio Interface via Glycan Functional Adlayers for Applications in Microbial Fuel Cell Bioanodes. Molecules, 2021, 26, 4755.	1.7	2

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91	Redox active films of salicylic acid-based molecules as pH and ion sensors for monitoring ionophore activity in supported lipid deposits. Electrochimica Acta, 2019, 313, 261-270.	2.6	1
92	Diselenolene proligands: reactivity and comparison with their dithiolene congeners. New Journal of Chemistry, 2021, 45, 8971-8977.	1.4	1
93	Electrografted anthraquinone to monitor pH at the biofilm-anode interface in a wastewater microbial fuel cell. Colloids and Surfaces B: Biointerfaces, 2022, 210, 112274.	2.5	1
94	Continuum in Enzymatic and Microbial Bioelectrocatalysis. , 2017, , 77-92.		0
95	Electrochemical Properties of pH-Dependent Flavocytochrome C 3 from Shewanella Putrefaciens Adsorbed Onto Catechol-Modified Carbon Electrode. ECS Meeting Abstracts, 2020, MA2020-01, 2522-2522.	0.0	0
96	Microbial Biocathode Catalyzing Oxygen Reduction and Processing Nitrification. ECS Meeting Abstracts, 2020, MA2020-01, 2686-2686.	0.0	0