Frdric Barrire

List of Publications by Year in Descending Order

94 papers	4,011 citations	32 h-index	62 g-index
105 ext. papers	4,328 ext. citations	7 avg, IF	5.55 L-index

#	Paper	IF	Citations
94	Electrografted anthraquinone to monitor pH at the biofilm-anode interface in a wastewater microbial fuel cell. *Colloids and Surfaces B: Biointerfaces*, **2021**, 210, 112274	6	
93	Introducing Selenium in Single-Component Molecular Conductors Based on Nickel Bis(dithiolene) Complexes. *Inorganic Chemistry*, **2021**, 60, 7876-7886	5.1	3
92	A radical mixed-ligand gold bis(dithiolene) complex. *Chemical Communications*, **2021**, 57, 1615-1618	5.8	1
91	Denitrifying bio-cathodes developed from constructed wetland sediments exhibit electroactive nitrate reducing biofilms dominated by the genera Azoarcus and Pontibacter. *Bioelectrochemistry*, **2021**, 140, 107819	5.6	3
90	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	5.6	4
89	Diselenolene proligands: reactivity and comparison with their dithiolene congeners. *New Journal of Chemistry*, **2021**, 45, 8971-8977	3.6	1
88	Halogen bonded metal bis(dithiolene) 2D frameworks. *CrystEngComm*, **2020**, 22, 3579-3587	3.3	11
87	Communication□Electrochemical Single Nano-Impacts of Electroactive Shewanella Oneidensis Bacteria onto Carbon Ultramicroelectrode. *Journal of the Electrochemical Society*, **2020**, 167, 105501	3.9	4
86	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	6	2
85	Lipid Membrane Permeability of Synthetic Redox DMPC Liposomes Investigated by Single Electrochemical Collisions. *Analytical Chemistry*, **2020**, 92, 2401-2408	7.8	11
84	Tailored glycosylated anode surfaces: Addressing the exoelectrogen bacterial community via functional layers for microbial fuel cell applications. *Bioelectrochemistry*, **2020**, 136, 107621	5.6	6
83	Ambipolar Discotic Liquid Crystals Built Around Platinum Diimine-Dithiolene Cores. *Chemistry - A European Journal*, **2019**, 25, 5719-5732	4.8	4
82	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	6.7	1
81	Cyclization of Terphenyl-Bisfluorenols: A Mechanistic Study of the Regioselectvity. *Chemistry - A European Journal*, **2019**, 25, 10689-10697	4.8	5
80	Halogen and chalcogen-bonding interactions in sulphur-rich □electron acceptors. *CrystEngComm*, **2019**, 21, 1934-1939	3.3	3
79	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	4.1	5
78	Electronic Communication within Flexible Bisdithiolene Ligands Bridging Molybdenum Centers. *Organometallics*, **2019**, 38, 4399-4408	3.8	3

77	Reductive electrografting of in situ produced diazopyridinium cations: Tailoring the interface between carbon electrodes and electroactive bacterial films. *Bioelectrochemistry*, **2018**, 120, 157-165	5.6	15
76	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	4.1	8
75	Conformational behavior, redox and spectroscopic properties of gold dithiolene complexes: [Au(iPr-thiazYdt)2]⁰ (Y = O, S, Se). *Inorganica Chimica Acta*, **2018**, 469, 255-263	2.7	1
74	Simulation of SAXS patterns of hexa-n-alkoxy-2,3,6,7,10,11-triphenylene mesophase. *Liquid Crystals*, **2018**, 45, 698-702	2.3	3
73	Electrochemical Detection of pH-Responsive Grafted Catechol and Immobilized Cytochrome onto Lipid Deposit-Modified Glassy Carbon Surface. *ACS Omega*, **2018**, 3, 9035-9042	3.9	8
72	Electrochemical Activation of TTF-Based Halogen Bond Donors: A Powerful, Selective and Sensitive Analytical Tool for Probing a Weak Interaction in Complex Media. *ChemistrySelect*, **2018**, 3, 8874-8880	1.8	10
71	The ins and outs of microorganism□electrode electron transfer reactions. *Nature Reviews Chemistry*, **2017**, 1,	34.6	276
70	Direct SN1 reaction at oxidized PPF surfaces. *Electrochemistry Communications*, **2017**, 75, 48-51	5.1	1
69	Electronic Interplay between TTF and Extended-TCNQ Electrophores along a Ruthenium Bis(acetylide) Linker. *Organic Letters*, **2017**, 19, 6060-6063	6.2	7
68	Continuum in Enzymatic and Microbial Bioelectrocatalysis **2017**, 77-92		
67	CS?I halogen bonding interactions in crystalline iodinated dithiole-2-thiones and thiazole-2-thiones. *CrystEngComm*, **2016**, 18, 5474-5481	3.3	13
66	A sulfur-rich □electron acceptor derived from 5,5?-bithiazolidinylidene: charge-transfer complex vs. charge-transfer salt. *CrystEngComm*, **2016**, 18, 3925-3933	3.3	12
65	Sequential Halogen Bonding with Ditopic Donors: □Hole Evolutions upon Halogen Bond Formation. *Crystal Growth and Design*, **2016**, 16, 2963-2971	3.5	18
64	Interplay between Organic-Organometallic Electrophores within Bis(cyclopentadienyl)Molybdenum Dithiolene Tetrathiafulvalene Complexes. *Inorganic Chemistry*, **2015**, 54, 5013-20	5.1	10
63	Monophyletic group of unclassified □Proteobacteria dominates in mixed culture biofilm of high-performing oxygen reducing biocathode. *Bioelectrochemistry*, **2015**, 106, 167-76	5.6	42
62	Influence of inoculum and anode surface properties on the selection of Geobacter-dominated biofilms. *Bioresource Technology*, **2015**, 195, 265-72	11	20
61	Trifluoromethyl-substituted tetrathiafulvalenes. *Beilstein Journal of Organic Chemistry*, **2015**, 11, 647-58	2.5	4
60	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	3.8	28

59	Model Complexes of the Active Site of Nitrogenases: Recent Advances **2014**, 225-248		1
58	Electrostatic Modeling of the Tunable Potential Difference between the Two Consecutive Oxidation Steps of Dinickel Bisfulvalene. *Organometallics*, **2014**, 33, 5046-5048	3.8	13
57	Variable magnetic interactions between S = 1/2 cation radical salts of functionalizable electron-rich dithiolene and diselenolene Cp2Mo complexes. *Inorganic Chemistry*, **2013**, 52, 2162-73	5.1	14
56	Ferrocene and Tetrathiafulvalene Redox Interplay across a Bis-acetylideRuthenium Bridge. *Organometallics*, **2013**, 32, 6130-6135	3.8	13
55	A sulfur rich electron acceptor and its [Fe(Cp*)2]+ charge transfer salt with ferromagnetic interactions. *Dalton Transactions*, **2013**, 42, 16672-5	4.3	13
54	A single sediment-microbial fuel cell powering a wireless telecommunication system. *Journal of Power Sources*, **2013**, 241, 703-708	8.9	84
53	Experimental and theoretical insights into the sequential oxidations of 3D2spiro 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	6.7	7
52	Advanced electrokinetic characterization of composite porous membranes. *Journal of Membrane Science*, **2013**, 429, 44-51	9.6	32
51	Cis and trans-bis(tetrathiafulvalene-acetylide) platinum(II) complexes: syntheses, crystal structures, and influence of the ancillary ligands on their electronic properties. *Dalton Transactions*, **2013**, 42, 383-94	4.3	18
50	Phenylboronic Acid Modified Anodes Promote Faster Biofilm Adhesion and Increase Microbial Fuel Cell Performances. *Electroanalysis*, **2013**, 25, 601-605	3	31
49	pH and Temperature Determine Performance of Oxygen Reducing Biocathodes. *Electroanalysis*, **2013**, 25, 652-655	3	20
48	On the nature of the electrode surface modification by cathodic reduction of tetraarylporphyrin diazonium salts in aqueous media. *Electrochemistry Communications*, **2012**, 20, 167-170	5.1	16
47	A versatile route to modify polyethersulfone membranes by chemical reduction of aryldiazonium salts. *Journal of Membrane Science*, **2012**, 417-418, 131-136	9.6	16
46	Enzymatic versus microbial bio-catalyzed electrodes in bio-electrochemical systems. *ChemSusChem*, **2012**, 5, 995-1005	8.3	45
45	Preparation of chiral ruthenium(IV) complexes and applications in regio- and enantioselective allylation of phenols. *Dalton Transactions*, **2011**, 40, 5625-30	4.3	22
44	Graphite anode surface modification with controlled reduction of specific aryl diazonium salts for improved microbial fuel cells power output. *Biosensors and Bioelectronics*, **2011**, 28, 181-8	11.8	88
43	Characterisation of yeast microbial fuel cell with the yeast Arxula adeninivorans as the biocatalyst. *Biosensors and Bioelectronics*, **2011**, 26, 3742-7	11.8	66
42	Violet-to-blue tunable emission of aryl-substituted dispirofluorene-indenofluorene isomers by conformationally-controllable intramolecular excimer formation. *Chemistry - A European Journal*, **2011**, 17, 10272-87	4.8	61

41	Blue emitting 3,9-spiro terfluorene-indenofluorene isomers: a structure-properties relationship study. *Chemistry - A European Journal*, **2011**, 17, 14031-46	4.8	49
40	Identifying charge and mass transfer resistances of an oxygen reducing biocathode. *Energy and Environmental Science*, **2011**, 4, 5035	35.4	88
39	A robust pure hydrocarbon derivative based on the (2,1-b)-indenofluorenyl core with high triplet energy level. *Chemical Communications*, **2011**, 47, 11703-5	5.8	45
38	Polythiophenes containing in-chain cobaltabisdicarbollide centers. *ACS Applied Materials & Interfaces*, **2010**, 2, 691-702	9.5	28
37	Redox multifunctionality in a series of Pt(II) dithiolene complexes of a tetrathiafulvalene-based diphosphine ligand. *Chemistry - an Asian Journal*, **2010**, 5, 169-76	4.5	18
36	Organometallic electrochemistry based on electrolytes containing weakly-coordinating fluoroarylborate anions. *Accounts of Chemical Research*, **2010**, 43, 1030-9	24.3	268
35	Persistent mixed-valence [(TTF)2]+* dyad of a chiral bis(binaphthol)-tetrathiafulvalene (TTF) derivative. *Chemistry - A European Journal*, **2010**, 16, 8020-8	4.8	33
34	(2,1-a)-Indenofluorene derivatives: syntheses, X-ray structures, optical and electrochemical properties. *Chemistry - A European Journal*, **2010**, 16, 13646-58	4.8	49
33	Tetrathiafulvalene hydrazone: efficient synthon for the synthesis of novel bidentate redox active ligands. *Tetrahedron Letters*, **2010**, 51, 4497-4500	2	6
32	Dependence of catalytic activity and long-term stability of enzyme hydrogel films on curing time. *Bioelectrochemistry*, **2010**, 79, 142-6	5.6	12
31	Encumbered dispiro[fluorene-indenofluorene]: mechanistic insights. *Chemistry - A European Journal* , **2009**, 15, 13304-7	4.8	38
30	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	4.1	10
29	Tuning the optical properties of aryl-substituted dispirofluorene-indenofluorene isomers through intramolecular excimer formation. *Organic Letters*, **2009**, 11, 4794-7	6.2	47
28	An improved microbial fuel cell with laccase as the oxygen reduction catalyst. *Energy and Environmental Science*, **2009**, 2, 96-99	35.4	99
27	Electronic communication between metal-organic electrophores in an organometallic ruthenium-acetylide-tetrathiafulvalene complex. *Chemical Communications*, **2009**, 7200-2	5.8	25
26	Electropolymerizable 2,2'-Carboranyldithiophenes. Structure-Property Investigations of the Corresponding Conducting Polymer Films by Electrochemistry, UV-Visible Spectroscopy and Conducting Probe Atomic Force Microscopy. *Macromolecules*, **2009**, 42, 2981-2987	5.5	44
25	Optimized preparation and scanning electrochemical microscopy analysis in feedback mode of glucose oxidase layers grafted onto conducting carbon surfaces. *Langmuir*, **2008**, 24, 9089-95	4	31
24	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	35.4	156

23	Redox bifunctionality in a Pt(ii) dithiolene complex of a tetrathiafulvalene diphosphine ligand. *Dalton Transactions*, **2008**, 5869-71	4.3	18
22	Anodic oxidation of indenofluorene. Electrodeposition of electroactive poly(indenofluorene). *New Journal of Chemistry*, **2008**, 32, 1259	3.6	18
21	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, 6351-8	4	72
20	New dispiro compounds: synthesis and properties. *Organic Letters*, **2008**, 10, 373-6	6.2	48
19	Powering fuel cells through biocatalysis **2008**, 385-410		1
18	Covalent modification of graphitic carbon substrates by non-electrochemical methods. *Journal of Solid State Electrochemistry*, **2008**, 12, 1231-1244	2.6	143
17	New 3pi-2spiro ladder-type phenylene materials: synthesis, physicochemical properties and applications in OLEDs. *Chemistry - A European Journal*, **2008**, 14, 11328-42	4.8	66
16	Improved stability of redox enzyme layers on glassy carbon electrodes via covalent grafting. *Electrochemistry Communications*, **2008**, 10, 835-838	5.1	57
15	Dispirofluorene-indenofluorene derivatives as new building blocks for blue organic electroluminescent devices and electroactive polymers. *Chemistry - A European Journal*, **2007**, 13, 10055-69	4.8	124
14	SECM imaging of micropatterned organic films on carbon surfaces. *Electrochemistry Communications*, **2007**, 9, 2387-2392	5.1	10
13	Use of weakly coordinating anions to develop an integrated approach to the tuning of deltaE(1/2) values by medium effects. *Journal of the American Chemical Society*, **2006**, 128, 3980-9	16.4	445
12	A laccase?glucose oxidase biofuel cell prototype operating in a physiological buffer. *Electrochimica Acta*, **2006**, 51, 5187-5192	6.7	177
11	Between Ni(mnt)2 and Ni(tfd)2 dithiolene complexes: the unsymmetrical 2-(trifluoromethyl)acrylonitrile-1,2-dithiolate and its nickel complexes. *Inorganic Chemistry*, **2005**, 44, 9763-70	5.1	36
10	Anodic Electrochemistry of Multiferrocenyl Phosphine and Phosphine Chalcogenide Complexes in Weakly Nucleophilic Electrolytes. *Organometallics*, **2005**, 24, 48-52	3.8	67
9	Targetting redox polymers as mediators for laccase oxygen reduction in a membrane-less biofuel cell. *Electrochemistry Communications*, **2004**, 6, 237-241	5.1	141
8	Modeling of the molybdenum center in the nitrogenase FeMo-cofactor. *Coordination Chemistry Reviews*, **2003**, 236, 71-89	23.2	85
7	Use of medium effects to tune the Delta E(1/2) values of bimetallic and oligometallic compounds. *Journal of the American Chemical Society*, **2002**, 124, 7262-3	16.4	256
6	Extended H?kel calculations on functional and structural models of the FeMo-cofactor of nitrogenase. *Polyhedron*, **2001**, 20, 27-36	2.7	17

5	On the electrochemical preparation of the neutral complexes M[S4C4(CN)4], M(mnt)2, M = Ni, Pd, Pt. *Inorganic Chemistry*, **2001**, 40, 2472-3	5.1	29
4	Generation of the 15-Electron Rhodium(II) Complex [RhCl(PPh3)3]+ by 1-Electron Oxidation of Wilkinson Catalyst. *Organometallics*, **2001**, 20, 2133-2135	3.8	8
3	Exo-iron centres linked to MoFeS clusters. *Journal of the Chemical Society Dalton Transactions*, **1999**, 957-964		5
2	Electrochemical dehydrodimerisation of a vinylenylamide ligand: formation of the binuclear group {MoN+CHCHCHCHCHCHN+Mo} which displays very strong electronic coupling in the {(MoIII)(MoIV)} mixed-valence state. *Chemical Communications*, **1998**, 675-676	5.8	2
1	Electrochemical deprotection of a substrate binding site in [Mo2(cp)2(μ-SMe)3(μ-Cl)](cp =η5-C5H5)via chloride-bridge opening. Kinetics of MeCN and ButNC binding at this site. *Journal of the Chemical Society Dalton Transactions*, **1996**, 3967-3976		31