

Frdric Barrire

List of Publications by Citations

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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	Use of weakly coordinating anions to develop an integrated approach to the tuning of $\Delta E(1/2)$ values by medium effects. <i>Journal of the American Chemical Society</i> , 2006 , 128, 3980-9	16.4	445
93	The ins and outs of microorganism-electrode electron transfer reactions. <i>Nature Reviews Chemistry</i> , 2017 , 1,	34.6	276
92	Organometallic electrochemistry based on electrolytes containing weakly-coordinating fluoroarylborate anions. <i>Accounts of Chemical Research</i> , 2010 , 43, 1030-9	24.3	268
91	Use of medium effects to tune the $\Delta E(1/2)$ values of bimetallic and oligometallic compounds. <i>Journal of the American Chemical Society</i> , 2002 , 124, 7262-3	16.4	256
90	A laccase-glucose oxidase biofuel cell prototype operating in a physiological buffer. <i>Electrochimica Acta</i> , 2006 , 51, 5187-5192	6.7	177
89	Bacteria and yeasts as catalysts in microbial fuel cells: electron transfer from micro-organisms to electrodes for green electricity. <i>Energy and Environmental Science</i> , 2008 , 1, 607	35.4	156
88	Covalent modification of graphitic carbon substrates by non-electrochemical methods. <i>Journal of Solid State Electrochemistry</i> , 2008 , 12, 1231-1244	2.6	143
87	Targetting redox polymers as mediators for laccase oxygen reduction in a membrane-less biofuel cell. <i>Electrochemistry Communications</i> , 2004 , 6, 237-241	5.1	141
86	Dispirofluorene-indenofluorene derivatives as new building blocks for blue organic electroluminescent devices and electroactive polymers. <i>Chemistry - A European Journal</i> , 2007 , 13, 10055-10059	4.8	124
85	An improved microbial fuel cell with laccase as the oxygen reduction catalyst. <i>Energy and Environmental Science</i> , 2009 , 2, 96-99	35.4	99
84	Graphite anode surface modification with controlled reduction of specific aryl diazonium salts for improved microbial fuel cells power output. <i>Biosensors and Bioelectronics</i> , 2011 , 28, 181-8	11.8	88
83	Identifying charge and mass transfer resistances of an oxygen reducing biocathode. <i>Energy and Environmental Science</i> , 2011 , 4, 5035	35.4	88
82	Modeling of the molybdenum center in the nitrogenase FeMo-cofactor. <i>Coordination Chemistry Reviews</i> , 2003 , 236, 71-89	23.2	85
81	A single sediment-microbial fuel cell powering a wireless telecommunication system. <i>Journal of Power Sources</i> , 2013 , 241, 703-708	8.9	84
80	Designing stable redox-active surfaces: chemical attachment of an osmium complex to glassy carbon electrodes prefunctionalized by electrochemical reduction of an in situ-generated aryl diazonium cation. <i>Langmuir</i> , 2008 , 24, 6351-8	4	72
79	Anodic Electrochemistry of Multiferrocenyl Phosphine and Phosphine Chalcogenide Complexes in Weakly Nucleophilic Electrolytes. <i>Organometallics</i> , 2005 , 24, 48-52	3.8	67
78	Characterisation of yeast microbial fuel cell with the yeast <i>Arxula adenivorans</i> as the biocatalyst. <i>Biosensors and Bioelectronics</i> , 2011 , 26, 3742-7	11.8	66

77	New 3pi-2spiro ladder-type phenylene materials: synthesis, physicochemical properties and applications in OLEDs. <i>Chemistry - A European Journal</i> , 2008 , 14, 11328-42	4.8	66
76	Violet-to-blue tunable emission of aryl-substituted dispirofluorene-indenofluorene isomers by conformationally-controllable intramolecular excimer formation. <i>Chemistry - A European Journal</i> , 2011 , 17, 10272-87	4.8	61
75	Improved stability of redox enzyme layers on glassy carbon electrodes via covalent grafting. <i>Electrochemistry Communications</i> , 2008 , 10, 835-838	5.1	57
74	Blue emitting 3E2spiro terfluorene-indenofluorene isomers: a structure-properties relationship study. <i>Chemistry - A European Journal</i> , 2011 , 17, 14031-46	4.8	49
73	(2,1-a)-Indenofluorene derivatives: syntheses, X-ray structures, optical and electrochemical properties. <i>Chemistry - A European Journal</i> , 2010 , 16, 13646-58	4.8	49
72	New dispiro compounds: synthesis and properties. <i>Organic Letters</i> , 2008 , 10, 373-6	6.2	48
71	Tuning the optical properties of aryl-substituted dispirofluorene-indenofluorene isomers through intramolecular excimer formation. <i>Organic Letters</i> , 2009 , 11, 4794-7	6.2	47
70	Enzymatic versus microbial bio-catalyzed electrodes in bio-electrochemical systems. <i>ChemSusChem</i> , 2012 , 5, 995-1005	8.3	45
69	A robust pure hydrocarbon derivative based on the (2,1-b)-indenofluorenyl core with high triplet energy level. <i>Chemical Communications</i> , 2011 , 47, 11703-5	5.8	45
68	Electropolymerizable 2,2QCarboranyldithiophenes. Structure-Property Investigations of the Corresponding Conducting Polymer Films by Electrochemistry, UV-Visible Spectroscopy and Conducting Probe Atomic Force Microscopy. <i>Macromolecules</i> , 2009 , 42, 2981-2987	5.5	44
67	Monophyletic group of unclassified EProteobacteria dominates in mixed culture biofilm of high-performing oxygen reducing biocathode. <i>Bioelectrochemistry</i> , 2015 , 106, 167-76	5.6	42
66	Encumbered dispiro[fluorene-indenofluorene]: mechanistic insights. <i>Chemistry - A European Journal</i> , 2009 , 15, 13304-7	4.8	38
65	Between Ni(mnt)2 and Ni(tfd)2 dithiolene complexes: the unsymmetrical 2-(trifluoromethyl)acrylonitrile-1,2-dithiolate and its nickel complexes. <i>Inorganic Chemistry</i> , 2005 , 44, 9763-70	5.1	36
64	Persistent mixed-valence [(TTF)2]+* dyad of a chiral bis(binaphthol)-tetrathiafulvalene (TTF) derivative. <i>Chemistry - A European Journal</i> , 2010 , 16, 8020-8	4.8	33
63	Advanced electrokinetic characterization of composite porous membranes. <i>Journal of Membrane Science</i> , 2013 , 429, 44-51	9.6	32
62	Phenylboronic Acid Modified Anodes Promote Faster Biofilm Adhesion and Increase Microbial Fuel Cell Performances. <i>Electroanalysis</i> , 2013 , 25, 601-605	3	31
61	Optimized preparation and scanning electrochemical microscopy analysis in feedback mode of glucose oxidase layers grafted onto conducting carbon surfaces. <i>Langmuir</i> , 2008 , 24, 9089-95	4	31
60	Electrochemical deprotection of a substrate binding site in [Mo2(cp)2(η-SMe)3(η-Cl)](cp = η-C5H5) via chloride-bridge opening. Kinetics of MeCN and ButNC binding at this site. <i>Journal of the Chemical Society Dalton Transactions</i> , 1996 , 3967-3976		31

59	On the electrochemical preparation of the neutral complexes $M[S_4C_4(CN)_4]$, $M(mnt)_2$, $M = Ni, Pd$, Pt. <i>Inorganic Chemistry</i> , 2001 , 40, 2472-3	5.1	29
58	Redox-Active Molecular Wires Derived from Dinuclear Ferrocenyl/Ruthenium(II) Alkynyl Complexes: Covalent Attachment to Hydrogen-Terminated Silicon Surfaces. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 3680-3695	3.8	28
57	Polythiophenes containing in-chain cobaltabisdicarbollide centers. <i>ACS Applied Materials & Interfaces</i> , 2010 , 2, 691-702	9.5	28
56	Electronic communication between metal-organic electrophores in an organometallic ruthenium-acetylide-tetrathiafulvalene complex. <i>Chemical Communications</i> , 2009 , 7200-2	5.8	25
55	Preparation of chiral ruthenium(IV) complexes and applications in regio- and enantioselective allylation of phenols. <i>Dalton Transactions</i> , 2011 , 40, 5625-30	4.3	22
54	Influence of inoculum and anode surface properties on the selection of Geobacter-dominated biofilms. <i>Bioresource Technology</i> , 2015 , 195, 265-72	11	20
53	pH and Temperature Determine Performance of Oxygen Reducing Biocathodes. <i>Electroanalysis</i> , 2013 , 25, 652-655	3	20
52	Cis and trans-bis(tetrathiafulvalene-acetylide) platinum(II) complexes: syntheses, crystal structures, and influence of the ancillary ligands on their electronic properties. <i>Dalton Transactions</i> , 2013 , 42, 383-943	4.3	18
51	Redox multifunctionality in a series of Pt(II) dithiolene complexes of a tetrathiafulvalene-based diphosphine ligand. <i>Chemistry - an Asian Journal</i> , 2010 , 5, 169-76	4.5	18
50	Redox bifunctionality in a Pt(II) dithiolene complex of a tetrathiafulvalene diphosphine ligand. <i>Dalton Transactions</i> , 2008 , 5869-71	4.3	18
49	Anodic oxidation of indenofluorene. Electrodeposition of electroactive poly(indenofluorene). <i>New Journal of Chemistry</i> , 2008 , 32, 1259	3.6	18
48	Sequential Halogen Bonding with Ditopic Donors: Hole Evolutions upon Halogen Bond Formation. <i>Crystal Growth and Design</i> , 2016 , 16, 2963-2971	3.5	18
47	Extended Hückel calculations on functional and structural models of the FeMo-cofactor of nitrogenase. <i>Polyhedron</i> , 2001 , 20, 27-36	2.7	17
46	On the nature of the electrode surface modification by cathodic reduction of tetraarylporphyrin diazonium salts in aqueous media. <i>Electrochemistry Communications</i> , 2012 , 20, 167-170	5.1	16
45	A versatile route to modify polyethersulfone membranes by chemical reduction of aryldiazonium salts. <i>Journal of Membrane Science</i> , 2012 , 417-418, 131-136	9.6	16
44	Reductive electrografting of in situ produced diazopyridinium cations: Tailoring the interface between carbon electrodes and electroactive bacterial films. <i>Bioelectrochemistry</i> , 2018 , 120, 157-165	5.6	15
43	Variable magnetic interactions between $S = 1/2$ cation radical salts of functionalizable electron-rich dithiolene and diselenolene Cp_2Mo complexes. <i>Inorganic Chemistry</i> , 2013 , 52, 2162-73	5.1	14
42	CS?I halogen bonding interactions in crystalline iodinated dithiole-2-thiones and thiazole-2-thiones. <i>CrystEngComm</i> , 2016 , 18, 5474-5481	3.3	13

41	Electrostatic Modeling of the Tunable Potential Difference between the Two Consecutive Oxidation Steps of Dinickel Bisfulvalene. <i>Organometallics</i> , 2014 , 33, 5046-5048	3.8	13
40	Ferrocene and Tetrathiafulvalene Redox Interplay across a Bis-acetylide Ruthenium Bridge. <i>Organometallics</i> , 2013 , 32, 6130-6135	3.8	13
39	A sulfur rich electron acceptor and its [Fe(Cp*) ₂] ⁺ charge transfer salt with ferromagnetic interactions. <i>Dalton Transactions</i> , 2013 , 42, 16672-5	4.3	13
38	Dependence of catalytic activity and long-term stability of enzyme hydrogel films on curing time. <i>Bioelectrochemistry</i> , 2010 , 79, 142-6	5.6	12
37	A sulfur-rich electron acceptor derived from 5,5'-bithiazolidinylidene: charge-transfer complex vs. charge-transfer salt. <i>CrystEngComm</i> , 2016 , 18, 3925-3933	3.3	12
36	Halogen bonded metal bis(dithiolene) 2D frameworks. <i>CrystEngComm</i> , 2020 , 22, 3579-3587	3.3	11
35	Lipid Membrane Permeability of Synthetic Redox DMPC Liposomes Investigated by Single Electrochemical Collisions. <i>Analytical Chemistry</i> , 2020 , 92, 2401-2408	7.8	11
34	Interplay between Organic-Organometallic Electrophores within Bis(cyclopentadienyl)Molybdenum Dithiolene Tetrathiafulvalene Complexes. <i>Inorganic Chemistry</i> , 2015 , 54, 5013-20	5.1	10
33	Electrochemical Activation of TTF-Based Halogen Bond Donors: A Powerful, Selective and Sensitive Analytical Tool for Probing a Weak Interaction in Complex Media. <i>ChemistrySelect</i> , 2018 , 3, 8874-8880	1.8	10
32	Covalent immobilization and SECM analysis in feedback mode of glucose oxidase on a modified oxidized silicon surface. <i>Journal of Electroanalytical Chemistry</i> , 2009 , 628, 144-147	4.1	10
31	SECM imaging of micropatterned organic films on carbon surfaces. <i>Electrochemistry Communications</i> , 2007 , 9, 2387-2392	5.1	10
30	An optimal surface concentration of pure cardiolipin deposited onto glassy carbon electrode promoting the direct electron transfer of cytochrome-c. <i>Journal of Electroanalytical Chemistry</i> , 2018 , 808, 286-292	4.1	8
29	Electrochemical Detection of pH-Responsive Grafted Catechol and Immobilized Cytochrome onto Lipid Deposit-Modified Glassy Carbon Surface. <i>ACS Omega</i> , 2018 , 3, 9035-9042	3.9	8
28	Generation of the 15-Electron Rhodium(II) Complex [RhCl(PPh ₃) ₃] ⁺ by 1-Electron Oxidation of Wilkinson's Catalyst. <i>Organometallics</i> , 2001 , 20, 2133-2135	3.8	8
27	Experimental and theoretical insights into the sequential oxidations of π -spiro molecules derived from oligophenylenes: A comparative study of 1,2-b-DiSpiroFluorene-IndenoFluorene versus 1,2-b-DiSpiroFluorene(tert-butyl)4-IndenoFluorene. <i>Electrochimica Acta</i> , 2013 , 110, 735-740	6.7	7
26	Electronic Interplay between TTF and Extended-TCNQ Electrophores along a Ruthenium Bis(acetylide) Linker. <i>Organic Letters</i> , 2017 , 19, 6060-6063	6.2	7
25	Tetrathiafulvalene hydrazone: efficient synthon for the synthesis of novel bidentate redox active ligands. <i>Tetrahedron Letters</i> , 2010 , 51, 4497-4500	2	6
24	Tailored glycosylated anode surfaces: Addressing the exoelectrogen bacterial community via functional layers for microbial fuel cell applications. <i>Bioelectrochemistry</i> , 2020 , 136, 107621	5.6	6

23	Cyclization of Terphenyl-Bisfluorens: A Mechanistic Study of the Regioselectivity. <i>Chemistry - A European Journal</i> , 2019 , 25, 10689-10697	4.8	5
22	Electrochemical properties of pH-dependent flavocytochrome c3 from <i>Shewanella putrefaciens</i> adsorbed onto unmodified and catechol-modified edge plane pyrolytic graphite electrode. <i>Journal of Electroanalytical Chemistry</i> , 2019 , 847, 113232	4.1	5
21	Exo-iron centres linked to MoFeS clusters. <i>Journal of the Chemical Society Dalton Transactions</i> , 1999 , 957-964		5
20	Ambipolar Discotic Liquid Crystals Built Around Platinum Diimine-Dithiolene Cores. <i>Chemistry - A European Journal</i> , 2019 , 25, 5719-5732	4.8	4
19	Communication Electrochemical Single Nano-Impacts of Electroactive <i>Shewanella Oneidensis</i> Bacteria onto Carbon Ultramicroelectrode. <i>Journal of the Electrochemical Society</i> , 2020 , 167, 105501	3.9	4
18	Trifluoromethyl-substituted tetrathiafulvalenes. <i>Beilstein Journal of Organic Chemistry</i> , 2015 , 11, 647-582.5	2.5	4
17	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. <i>Bioelectrochemistry</i> , 2021 , 142, 107937	5.6	4
16	Halogen and chalcogen-bonding interactions in sulphur-rich Electron acceptors. <i>CrystEngComm</i> , 2019 , 21, 1934-1939	3.3	3
15	Simulation of SAXS patterns of hexa-n-alkoxy-2,3,6,7,10,11-triphenylene mesophase. <i>Liquid Crystals</i> , 2018 , 45, 698-702	2.3	3
14	Electronic Communication within Flexible Bisdithiolene Ligands Bridging Molybdenum Centers. <i>Organometallics</i> , 2019 , 38, 4399-4408	3.8	3
13	Introducing Selenium in Single-Component Molecular Conductors Based on Nickel Bis(dithiolene) Complexes. <i>Inorganic Chemistry</i> , 2021 , 60, 7876-7886	5.1	3
12	Denitrifying bio-cathodes developed from constructed wetland sediments exhibit electroactive nitrate reducing biofilms dominated by the genera <i>Azoarcus</i> and <i>Pontibacter</i> . <i>Bioelectrochemistry</i> , 2021 , 140, 107819	5.6	3
11	Assisted lipid deposition by reductive electrochemical aryldiazonium grafting and insertion of the antiport NhaA protein in this stable biomimetic membrane. <i>Colloids and Surfaces B: Biointerfaces</i> , 2020 , 190, 110924	6	2
10	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. <i>Chemical Communications</i> , 1998 , 675-676	5.8	2
9	Direct SN1 reaction at oxidized PPF surfaces. <i>Electrochemistry Communications</i> , 2017 , 75, 48-51	5.1	1
8	Redox active films of salicylic acid-based molecules as pH and ion sensors for monitoring ionophore activity in supported lipid deposits. <i>Electrochimica Acta</i> , 2019 , 313, 261-270	6.7	1
7	Conformational behavior, redox and spectroscopic properties of gold dithiolene complexes: [Au(iPr-thiazYdt)2] (Y = O, S, Se). <i>Inorganica Chimica Acta</i> , 2018 , 469, 255-263	2.7	1
6	Model Complexes of the Active Site of Nitrogenases: Recent Advances 2014 , 225-248		1

5	Powering fuel cells through biocatalysis 2008 , 385-410		1
4	A radical mixed-ligand gold bis(dithiolene) complex. <i>Chemical Communications</i> , 2021 , 57, 1615-1618	5.8	1
3	Diselenolene proligands: reactivity and comparison with their dithiolene congeners. <i>New Journal of Chemistry</i> , 2021 , 45, 8971-8977	3.6	1
2	Continuum in Enzymatic and Microbial Bioelectrocatalysis 2017 , 77-92		
1	Electrografted anthraquinone to monitor pH at the biofilm-anode interface in a wastewater microbial fuel cell. <i>Colloids and Surfaces B: Biointerfaces</i> , 2021 , 210, 112274	6	