Marc Robert

List of Publications by Year
in descending order

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116 papers	14,790 citations	26567 56 h-index	21474 114 g-index
121 all docs	121 docs citations	121 times ranked	10230 citing authors

#	ARTICLE	IF	CITATIONS
1	Highly Efficient Photocatalytic Reduction of CO₂ to CO by In Situ Formation of a Hybrid Catalytic System Based on Molecular Iron Quaterpyridine Covalently Linked to Carbon Nitride. Angewandte Chemie - International Edition, 2022, 61, .	7.2	43
2	Highly Efficient Photocatalytic Reduction of CO₂ to CO by In Situ Formation of a Hybrid Catalytic System Based on Molecular Iron Quaterpyridine Covalently Linked to Carbon Nitride. Angewandte Chemie, 2022, 134, .	1.6	6
3	Phenoxazineâ€Sensitized CO₂â€toâ€CO Reduction with an Iron Porphyrin Catalyst: A Redox Propertiesâ€Catalytic Performance Study. ChemPhotoChem, 2022, 6, .	1.5	8
4	On the Existence and Role of Formaldehyde During Aqueous Electrochemical Reduction of Carbon Monoxide to Methanol by Cobalt Phthalocyanine. Chemistry - A European Journal, 2022, 28, .	1.7	10
5	A Pioneering Career in Electrochemistry: Jean-Michel SavÃ©ant. ACS Catalysis, 2021, 11, 3224-3238.	5.5	7
6	Molecular Electrochemical Reduction of CO2 beyond Two Electrons. Trends in Chemistry, 2021, 3, 359-372.	4.4	65
7	Carbon Dioxide Reduction to Methanol with a Molecular Cobaltâ€Catalystâ€Loaded Porous Carbon Electrode Assisted by a CIGS Photovoltaic Cell**. ChemPhotoChem, 2021, 5, 705-710.	1.5	4
8	Molecule/Semiconductor Hybrid Materials for Visible-Light CO₂ Reduction: Design Principles and Interfacial Engineering. Accounts of Materials Research, 2021, 2, 458-470.	5.9	51
9	Hybridization of Molecular and Graphene Materials for CO₂ Photocatalytic Reduction with Selectivity Control. Journal of the American Chemical Society, 2021, 143, 8414-8425.	6.6	64
10	Highlights and challenges in the selective reduction of carbon dioxide to methanol. Nature Reviews Chemistry, 2021, 5, 564-579.	13.8	253
11	Electrocatalytic and Photocatalytic Reduction of Carbon Dioxide by Earthâ€Abundant Bimetallic Molecular Catalysts. ChemPhysChem, 2021, 22, 1835-1843.	1.0	21
12	Taming Electron Transfers: From Breaking Bonds to Creating Molecules. Chemical Record, 2021, 21, 2095-2106.	2.9	4
13	Light-driven catalytic conversion of CO2 with heterogenized molecular catalysts based on fourth period transition metals. Coordination Chemistry Reviews, 2021, 443, 214018.	9.5	43
14	Advances in molecular electrochemical activation of dinitrogen. Current Opinion in Electrochemistry, 2021, 29, 100834.	2.5	12
15	Molecular catalysis of CO₂ reduction: recent advances and perspectives in electrochemical and light-driven processes with selected Fe, Ni and Co aza macrocyclic and polypyridine complexes. Chemical Society Reviews, 2020, 49, 5772-5809.	18.7	233
16	Emergence of CO2 electrolyzers including supported molecular catalysts. Current Opinion in Electrochemistry, 2020, 24, 49-55.	2.5	15
17	Achieving Nearâ€Unity CO Selectivity for CO₂ Electroreduction on an Ironâ€Decorated Carbon Material. ChemSusChem, 2020, 13, 6360-6369.	3.6	8
18	Photocathode functionalized with a molecular cobalt catalyst for selective carbon dioxide reduction in water. Nature Communications, 2020, 11, 3499.	5.8	56

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19	Mn^I complex redox potential tunability by remote lewis acid interaction. Dalton Transactions, 2020, 49, 16623-16626.	1.6	3
20	Electrocatalytic O₂ Activation by Fe Tetrakis(pentafluorophenyl)porphyrin in Acidic Organic Media. Evidence of High-Valent Fe Oxo Species. Inorganic Chemistry, 2020, 59, 11577-11583.	1.9	7
21	Molecular quaterpyridine-based metal complexes for small molecule activation: water splitting and CO₂ reduction. Chemical Society Reviews, 2020, 49, 7271-7283.	18.7	57
22	Precious-metal free photocatalytic production of an NADH analogue using cobalt diimineâ€“dioxime catalysts under both aqueous and organic conditions. Chemical Communications, 2020, 56, 7491-7494.	2.2	9
23	pH universal Ru@N-doped carbon catalyst for efficient and fast hydrogen evolution. Catalysis Science and Technology, 2020, 10, 4405-4411.	2.1	32
24	Efficient Visible-Light-Driven CO₂ Reduction by a Cobalt Molecular Catalyst Covalently Linked to Mesoporous Carbon Nitride. Journal of the American Chemical Society, 2020, 142, 6188-6195.	6.6	199
25	Electrochemical Conversion of CO₂ to CO by a Competent Fe^I Intermediate Bearing a Schiff Base Ligand. ChemSusChem, 2020, 13, 4111-4120.	3.6	11
26	Manifesto for the routine use of NMR for the liquid product analysis of aqueous CO₂reduction: from comprehensive chemical shift data to formaldehyde quantification in water. Dalton Transactions, 2020, 49, 4257-4265.	1.6	45
27	Iron Porphyrin Allows Fast and Selective Electrocatalytic Conversion of CO₂ to CO in a Flow Cell. Chemistry - A European Journal, 2020, 26, 3034-3038.	1.7	52
28	Molecular Catalysts Boost the Rate of Electrolytic CO₂ Reduction. ACS Energy Letters, 2020, 5, 1512-1518.	8.8	52
29	A highly active and robust iron quinquepyridine complex for photocatalytic CO₂ reduction in aqueous acetonitrile solution. Chemical Communications, 2020, 56, 6249-6252.	2.2	21
30	Fast and Selective CO2 Reduction into CO with Cobalt Phthalocyanine in a Flow Cell. ECS Meeting Abstracts, 2020, MA2020-01, 940-940.	0.0	0
31	CO2 electrochemical catalytic reduction with a highly active cobalt phthalocyanine. Nature Communications, 2019, 10, 3602.	5.8	307
32	Selectivity control of CO versus HCOOâˆ’ production in the visible-light-driven catalytic reduction of CO2 with two cooperative metal sites. Nature Catalysis, 2019, 2, 801-808.	16.1	153
33	An Iron Quaterpyridine Complex as Precursor for the Electrocatalytic Reduction of CO₂ to Methane. ChemSusChem, 2019, 12, 4500-4505.	3.6	23
34	Molecular electrocatalysts can mediate fast, selective CO ₂ reduction in a flow cell. Science, 2019, 365, 367-369.	6.0	601
35	Aqueous Electrochemical Reduction of Carbon Dioxide and Carbon Monoxide into Methanol with Cobalt Phthalocyanine. Angewandte Chemie, 2019, 131, 16318-16322.	1.6	21
36	Aqueous Electrochemical Reduction of Carbon Dioxide and Carbon Monoxide into Methanol with Cobalt Phthalocyanine. Angewandte Chemie - International Edition, 2019, 58, 16172-16176.	7.2	137

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37	Small-molecule activation with iron porphyrins using electrons, photons and protons: some recent advances and future strategies. Dalton Transactions, 2019, 48, 5869-5878.	1.6	15
38	A molecular noble metal-free system for efficient visible light-driven reduction of CO₂ to CO. Dalton Transactions, 2019, 48, 9596-9602.	1.6	37
39	Molecular Electrochemical Catalysis of the CO₂-to-CO Conversion with a Co Complex: A Cyclic Voltammetry Mechanistic Investigation. Organometallics, 2019, 38, 1280-1285.	1.1	24
40	Electrochemical and Photochemical Reduction of CO₂ Catalyzed by Re(I) Complexes Carrying Local Proton Sources. Organometallics, 2019, 38, 1351-1360.	1.1	48
41	A Hybrid Co Quaterpyridine Complex/Carbon Nanotube Catalytic Material for CO₂ Reduction in Water. Angewandte Chemie - International Edition, 2018, 57, 7769-7773.	7.2	101
42	Toward Visible-Light Photochemical CO₂-to-CH₄ Conversion in Aqueous Solutions Using Sensitized Molecular Catalysis. Journal of Physical Chemistry C, 2018, 122, 13834-13839.	1.5	38
43	Highly Selective Molecular Catalysts for the CO₂-to-CO Electrochemical Conversion at Very Low Overpotential. Contrasting Fe vs Co Quaterpyridine Complexes upon Mechanistic Studies. ACS Catalysis, 2018, 8, 3411-3417.	5.5	141
44	Visible-Light-Driven Conversion of CO₂ to CH₄ with an Organic Sensitizer and an Iron Porphyrin Catalyst. Journal of the American Chemical Society, 2018, 140, 17830-17834.	6.6	150
45	A Hybrid Co Quaterpyridine Complex/Carbon Nanotube Catalytic Material for CO₂ Reduction in Water. Angewandte Chemie, 2018, 130, 7895-7899.	1.6	24
46	A Carbon Nitride/Fe Quaterpyridine Catalytic System for Photostimulated CO₂-to-CO Conversion with Visible Light. Journal of the American Chemical Society, 2018, 140, 7437-7440.	6.6	160
47	Local Proton Source in Electrocatalytic CO₂ Reduction with [Mn(bpyâ€"R)(CO)₃Br] Complexes. Chemistry - A European Journal, 2017, 23, 4782-4793.	1.7	123
48	Molecular catalysis of electrochemical reactions. Current Opinion in Electrochemistry, 2017, 2, 26-31.	2.5	45
49	Non-sensitized selective photochemical reduction of CO₂ to CO under visible light with an iron molecular catalyst. Chemical Communications, 2017, 53, 2830-2833.	2.2	100
50	Frontispiece: Local Proton Source in Electrocatalytic CO₂ Reduction with [Mn(bpyâ€"R)(CO)₃Br] Complexes. Chemistry - A European Journal, 2017, 23, .	1.7	0
51	Mechanistic Insight into the Cu-Catalyzed C<i>â€"</i>S Cross-Coupling of Thioacetate with Aryl Halides: A Joint Experimentalâ€"Computational Study. Journal of Organic Chemistry, 2017, 82, 11464-11473.	1.7	33
52	In Situ Observation of the Formation and Structure of Hydrogen-Evolving Amorphous Cobalt Electrocatalysts. ACS Energy Letters, 2017, 2, 2545-2551.	8.8	17
53	Photocatalytic Conversion of CO₂ to CO by a Copper(II) Quaterpyridine Complex. ChemSusChem, 2017, 10, 4009-4013.	3.6	74
54	Visibleâ€•light Homogeneous Photocatalytic Conversion of CO₂ into CO in Aqueous Solutions with an Iron Catalyst. ChemSusChem, 2017, 10, 4447-4450.	3.6	83

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55	Visible-light-driven methane formation from CO2 with a molecular iron catalyst. Nature, 2017, 548, 74-77.	13.7	730
56	Electrons, Photons, Protons and Earth-Abundant Metal Complexes for Molecular Catalysis of CO₂ Reduction. ACS Catalysis, 2017, 7, 70-88.	5.5	558
57	Molecular catalysis of the electrochemical and photochemical reduction of CO2 with Fe and Co metal based complexes. Recent advances. Coordination Chemistry Reviews, 2017, 334, 184-198.	9.5	195
58	(Invited) Molecular Electrochemical Catalysis of CO2 Reduction with Fe and Co Complexes. from Mechanistic Studies to Highly Selective CO Production and to More Reduced Products. ECS Meeting Abstracts, 2017, , .	0.0	0
59	Controlled electropolymerisation of a carbazole-functionalised iron porphyrin electrocatalyst for CO₂ reduction. Chemical Communications, 2016, 52, 5864-5867.	2.2	48
60	Efficient electrolyzer for CO ₂ splitting in neutral water using earth-abundant materials. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 5526-5529.	3.3	105
61	Catalytic CO₂-to-CO conversion in water by covalently functionalized carbon nanotubes with a molecular iron catalyst. Chemical Communications, 2016, 52, 12084-12087.	2.2	104
62	Highly Efficient and Selective Photocatalytic CO₂ Reduction by Iron and Cobalt Quaterpyridine Complexes. Journal of the American Chemical Society, 2016, 138, 9413-9416.	6.6	276
63	Dissection of Electronic Substituent Effects in Multielectronâ€"Multistep Molecular Catalysis. Electrochemical CO₂-to-CO Conversion Catalyzed by Iron Porphyrins. Journal of Physical Chemistry C, 2016, 120, 28951-28960.	1.5	139
64	Through-Space Charge Interaction Substituent Effects in Molecular Catalysis Leading to the Design of the Most Efficient Catalyst of CO₂-to-CO Electrochemical Conversion. Journal of the American Chemical Society, 2016, 138, 16639-16644.	6.6	482
65	A Case for Electrofuels. ACS Energy Letters, 2016, 1, 1062-1064.	8.8	39
66	Photochemical and electrochemical catalytic reduction of CO₂with NHC-containing dicarbonyl rhenium(<scp>i</scp>) bipyridine complexes. Dalton Transactions, 2016, 45, 14524-14529.	1.6	50
67	Heterogeneous and Homogeneous Routes in Water Oxidation Catalysis Starting from Cu^{II} Complexes with Tetraaza Macrocyclic Ligands. Chemistry - an Asian Journal, 2016, 11, 1281-1287.	1.7	43
68	Noncovalent Immobilization of a Molecular Iron-Based Electrocatalyst on Carbon Electrodes for Selective, Efficient CO₂-to-CO Conversion in Water. Journal of the American Chemical Society, 2016, 138, 2492-2495.	6.6	250
69	Dissociative Electron Transfers. , 2015, , 511-530.		1
70	Efficient and selective molecular catalyst for the CO ₂ -to-CO electrochemical conversion in water. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 6882-6886.	3.3	278
71	Molecular Catalysis of the Electrochemical and Photochemical Reduction of CO₂ with Earth-Abundant Metal Complexes. Selective Production of CO vs HCOOH by Switching of the Metal Center. Journal of the American Chemical Society, 2015, 137, 10918-10921.	6.6	294
72	Current Issues in Molecular Catalysis Illustrated by Iron Porphyrins as Catalysts of the CO₂-to-CO Electrochemical Conversion. Accounts of Chemical Research, 2015, 48, 2996-3006.	7.6	279

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73	Homogeneous Photocatalytic Reduction of CO₂ to CO Using Iron(0) Porphyrin Catalysts: Mechanism and Intrinsic Limitations. ChemCatChem, 2014, 6, 3200-3207.	1.8	121
74	Breaking Bonds with Electrons and Protons. Models and Examples. Accounts of Chemical Research, 2014, 47, 271-280.	7.6	47
75	Selective and Efficient Photocatalytic CO₂ Reduction to CO Using Visible Light and an Iron-Based Homogeneous Catalyst. Journal of the American Chemical Society, 2014, 136, 16768-16771.	6.6	275
76	Pendant Acidâ€“Base Groups in Molecular Catalysts: H-Bond Promoters or Proton Relays? Mechanisms of the Conversion of CO₂ to CO by Electrogenerated Iron(0)Porphyrins Bearing Prepositioned Phenol Functionalities. Journal of the American Chemical Society, 2014, 136, 11821-11829.	6.6	209
77	Ultraefficient homogeneous catalyst for the CO ₂ -to-CO electrochemical conversion. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 14990-14994.	3.3	236
78	Cobalt-Bisglyoximato Diphenyl Complex as a Precatalyst for Electrocatalytic H₂ Evolution. Journal of Physical Chemistry C, 2014, 118, 13377-13381.	1.5	44
79	Proton-Coupled Electron Transfers: pH-Dependent Driving Forces? Fundamentals and Artifacts. Journal of the American Chemical Society, 2013, 135, 14359-14366.	6.6	33
80	Catalysis of the electrochemical reduction of carbon dioxide. Chemical Society Reviews, 2013, 42, 2423-2436.	18.7	1,382
81	Proton-Coupled Electron Transfer Cleavage of Heavy-Atom Bonds in Electrocatalytic Processes. Cleavage of a Câ€“O Bond in the Catalyzed Electrochemical Reduction of CO₂. Journal of the American Chemical Society, 2013, 135, 9023-9031.	6.6	209
82	Monometallic Cobaltâ€“Trisglyoximato Complexes as Precatalysts for Catalytic H₂ Evolution in Water. Journal of Physical Chemistry C, 2013, 117, 17073-17077.	1.5	54
83	Boron-Capped Tris(glyoximato) Cobalt Clathrochelate as a Precursor for the Electrodeposition of Nanoparticles Catalyzing H₂ Evolution in Water. Journal of the American Chemical Society, 2012, 134, 6104-6107.	6.6	169
84	Turnover Numbers, Turnover Frequencies, and Overpotential in Molecular Catalysis of Electrochemical Reactions. Cyclic Voltammetry and Preparative-Scale Electrolysis. Journal of the American Chemical Society, 2012, 134, 11235-11242.	6.6	647
85	A Local Proton Source Enhances CO ₂ Electroreduction to CO by a Molecular Fe Catalyst. Science, 2012, 338, 90-94.	6.0	1,075
86	Pyridine as proton acceptor in the concerted proton electron transfer oxidation of phenol. Organic and Biomolecular Chemistry, 2011, 9, 4064.	1.5	29
87	Water (in Water) as an Intrinsically Efficient Proton Acceptor in Concerted Proton Electron Transfers. Journal of the American Chemical Society, 2011, 133, 6668-6674.	6.6	65
88	Photoinduced Protonâ€Coupled Electron Transfers in Biorelevant Phenolic Systems. Photochemistry and Photobiology, 2011, 87, 1190-1203.	1.3	36
89	Concerted heavy-atom bond cleavage and proton and electron transfers illustrated by proton-assisted reductive cleavage of an Oâ€“O bond. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 8559-8564.	3.3	35
90	Concerted Protonâˆ’Electron Transfers: Electrochemical and Related Approaches. Accounts of Chemical Research, 2010, 43, 1019-1029.	7.6	240

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91	Effect of Base Pairing on the Electrochemical Oxidation of Guanine. Journal of the American Chemical Society, 2010, 132, 10142-10147.	6.6	13
92	Concerted protonâ€“electron transfers in the oxidation of phenols. Physical Chemistry Chemical Physics, 2010, 12, 11179.	1.3	65
93	Intrinsic reactivity and driving force dependence in concerted protonâ€“electron transfers to water illustrated by phenol oxidation. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 3367-3372.	3.3	71
94	The electrochemical approach to concerted protonâ€”electron transfers in the oxidation of phenols in water. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 18143-18148.	3.3	112
95	Concerted proton-coupled electron transfers in aquo/hydroxo/oxo metal complexes: Electrochemistry of [Os ^{II} (bpy) ₂ py(OH ₂)] ²⁺ in water. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 11829-11836.	3.3	61
96	Passage from Stepwise to Concerted Dissociative Electron Transfer through Modulation of Electronic States Coupling. Chemistry - A European Journal, 2009, 15, 785-792.	1.7	18
97	Photoinduced reductive cleavage of some chlorobenzylic compounds. New insights from comparison with electrochemically induced reactions. Physical Chemistry Chemical Physics, 2009, 11, 10275.	1.3	6
98	Adiabatic and Non-adiabatic Concerted Protonâˆ’Electron Transfers. Temperature Effects in the Oxidation of Intramolecularly Hydrogen-Bonded Phenols. Journal of the American Chemical Society, 2007, 129, 9953-9963.	6.6	98
99	Concerted Protonâˆ’Electron Transfer Reactions in Water. Are the Driving Force and Rate Constant Depending on pH When Water Acts as Proton Donor or Acceptor?. Journal of the American Chemical Society, 2007, 129, 5870-5879.	6.6	104
100	Electrochemical and Homogeneous Proton-Coupled Electron Transfers:Â Concerted Pathways in the One-Electron Oxidation of a Phenol Coupled with an Intramolecular Amine-Driven Proton Transfer. Journal of the American Chemical Society, 2006, 128, 4552-4553.	6.6	122
101	Electron transfer and bond breaking: Recent advances. Chemical Physics, 2006, 324, 40-56.	0.9	108
102	Electrochemical concerted proton and electron transfers. Potential-dependent rate constant, reorganization factors, proton tunneling and isotope effects. Journal of Electroanalytical Chemistry, 2006, 588, 197-206.	1.9	87
103	Sticky Dissociative Electron Transfer to Polychloroacetamides. In-Cage Ionâˆ’Dipole Interaction Control through the Dipole Moment and Intramolecular Hydrogen Bond. Journal of Physical Chemistry A, 2005, 109, 2984-2990.	1.1	23
104	Electrochemical Approach to Concerted Proton and Electron Transfers. Reduction of the Waterâˆ’Superoxide Ion Complex. Journal of the American Chemical Society, 2005, 127, 12490-12491.	6.6	131
105	Stepwise and Concerted Electron-Transfer/Bond Breaking Reactions. Solvent Control of the Existence of Unstable Ï€ Ion Radicals and of the Activation Barriers of Their Heterolytic Cleavage. Journal of the American Chemical Society, 2004, 126, 16834-16840.	6.6	51
106	Fragmentation of Aryl Halide Ï€ Anion Radicals. Bending of the Cleaving Bond and Activation vs Driving Force Relationships. Journal of the American Chemical Society, 2004, 126, 16051-16057.	6.6	153
107	Activation Barriers in the Homolytic Cleavage of Radicals and Ion Radicals. Journal of the American Chemical Society, 2003, 125, 105-112.	6.6	30
108	Dissociative Electron Transfer to Haloacetonitriles. An Example of the Dependency of In-Cage Ion-Radical Interactions upon the Leaving Group. Journal of the American Chemical Society, 2002, 124, 13533-13539.	6.6	131

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109	Stepwise and Concerted Pathways in Photoinduced and Thermal Electron-Transfer/Bond-Breaking Reactions. Experimental Illustration of Similarities and Contrasts. Journal of the American Chemical Society, 2001, 123, 4886-4895.	6.6	62
110	Stabilities of Ion/Radical Adducts in the Liquid Phase as Derived from the Dependence of Electrochemical Cleavage Reactivities upon Solvent. Journal of the American Chemical Society, 2001, 123, 11908-11916.	6.6	39
111	Reductive Cleavage of Carbon Tetrachloride in a Polar Solvent. An Example of a Dissociative Electron Transfer with Significant Attractive Interaction between the Caged Product Fragments. Journal of the American Chemical Society, 2000, 122, 9829-9835.	6.6	143
112	Photoinduced Dissociative Electron Transfer:â€‰ Is the Quantum Yield Theoretically Predicted to Equal Unity?. Journal of the American Chemical Society, 2000, 122, 514-517.	6.6	47
113	Stepwise and Concerted Pathways in Thermal and Photoinduced Electron-Transfer/Bond-Breaking Reactions. Journal of Physical Chemistry A, 2000, 104, 7492-7501.	1.1	25
114	Can Single-Electron Transfer Break an Aromatic Carbonâ˘'Heteroatom Bond in One Step? A Novel Example of Transition between Stepwise and Concerted Mechanisms in the Reduction of Aromatic Iodides. Journal of the American Chemical Society, 1999, 121, 7158-7159.	6.6	217
115	Passage from Concerted to Stepwise Dissociative Electron Transfer as a Function of the Molecular Structure and of the Energy of the Incoming Electron. Electrochemical Reduction of Aryldialkyl Sulfonium Cations. Journal of the American Chemical Society, 1994, 116, 7864-7871.	6.6	131
116	Controlling factors of stepwise versus concerted reductive cleavages. Illustrative examples in the electrochemical reductive breaking of nitrogen-halogen bonds in aromatic N-halosultams. Journal of the American Chemical Society, 1993, 115, 6592-6599.	6.6	77