BenoÃ®t Limoges

List of Publications by Year
in descending order

103 papers	3,822 citations	109321 35 h-index	138484 58 g-index
117 all docs	117 docs citations	117 times ranked	3514 citing authors

#	Article	IF	Citations
1	Exponential amplification by redox cross-catalysis and unmasking of doubly protected molecular probes. Chemical Science, 2022, 13, 2764-2777.	7.4	1
2	Towards a high MnO₂ loading and gravimetric capacity from proton-coupled Mn⁴⁺/Mn²⁺ reactions using a 3D free-standing conducting scaffold. Journal of Materials Chemistry A, 2021, 9, 1500-1506.	10.3	12
3	A Pioneering Career in Electrochemistry: Jean-Michel SavÃ©ant. ACS Catalysis, 2021, 11, 3224-3238.	11.2	7
4	Evidence of Bulk Proton Insertion in Nanostructured Anatase and Amorphous TiO₂ Electrodes. Chemistry of Materials, 2021, 33, 3436-3448.	6.7	37
5	Interplay Between Charge Accumulation and Oxygen Reduction Catalysis in Nanostructured TiO 2 Electrodes Functionalized with a Molecular Catalyst. ChemElectroChem, 2021, 8, 2640-2648.	3.4	1
6	The Role of Al³⁺â€Based Aqueous Electrolytes in the Charge Storage Mechanism of MnO_x Cathodes. Small, 2021, 17, e2101515.	10.0	18
7	Specific Versus Nonâ€specific Response in Exponential Molecular Amplification from Crossâ€Catalysis: Modeling the Influence of Background Amplifications on the Analytical Performances. ChemPhysChem, 2021, 22, 1611-1621.	2.1	2
8	An autocatalytic organic reaction network based on cross-catalysis. Chemical Communications, 2021, 57, 11374-11377.	4.1	5
9	Nanostructured Electrode Enabling Fast and Fully Reversible MnO₂-to-Mn²⁺ Conversion in Mild Buffered Aqueous Electrolytes. ACS Applied Energy Materials, 2020, 3, 7610-7618.	5.1	23
10	Accessing the Twoâ€Electron Charge Storage Capacity of MnO₂ in Mild Aqueous Electrolytes. Advanced Energy Materials, 2020, 10, 2000332.	19.5	69
11	Mechanism of Reconstitution/Activation of the Soluble PQQ-Dependent Glucose Dehydrogenase from Acinetobacter calcoaceticus: A Comprehensive Study. ACS Omega, 2020, 5, 2015-2026.	3.5	3
12	On the unsuspected role of multivalent metal ions on the charge storage of a metal oxide electrode in mild aqueous electrolytes. Chemical Science, 2019, 10, 8752-8763.	7.4	42
13	An optical H2S biosensor based on the chemoselective Hb-I protein tethered to a transparent, high surface area nanocolumnar electrode. Sensors and Actuators B: Chemical, 2019, 290, 326-335.	7.8	8
14	Exponential Molecular Amplification by H₂O₂â€Mediated Autocatalytic Deprotection of Boronic Ester Probes to Redox Cyclers. Chemistry - A European Journal, 2019, 25, 7534-7546.	3.3	11
15	Introducing Molecular Functionalities within High Surface Area Nanostructured ITO Electrodes through Diazonium Electrografting. ChemElectroChem, 2018, 5, 1625-1630.	3.4	15
16	Evidencing Fast, Massive, and Reversible H⁺ Insertion in Nanostructured TiO₂ Electrodes at Neutral pH. Where Do Protons Come From?. Journal of Physical Chemistry C, 2017, 121, 10325-10335.	3.1	48
17	Cyclic voltammetry modeling of proton transport effects on redox charge storage in conductive materials: application to a TiO₂ mesoporous film. Physical Chemistry Chemical Physics, 2017, 19, 17944-17951.	2.8	18
18	Use of a redox probe for an electrochemical RNAâ€“ligand binding assay in microliter droplets. Chemical Communications, 2017, 53, 1140-1143.	4.1	4

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19	On the decisive role of the sulfur-based anchoring group in the electro-assisted formation of self-assembled monolayers on gold. Electrochimica Acta, 2017, 257, 165-171.	5.2	13
20	Detection of a few DNA copies by real-time electrochemical polymerase chain reaction. Analyst, The, 2017, 142, 3432-3440.	3.5	11
21	Investigating Charge Transfer in Functionalized Mesoporous EISAâ€“SnO₂ Films. Journal of Physical Chemistry C, 2017, 121, 23207-23217.	3.1	1
22	Real-time electrochemical LAMP: a rational comparative study of different DNA intercalating and non-intercalating redox probes. Analyst, The, 2016, 141, 4196-4203.	3.5	26
23	Electroâ€assisted Deposition of Binary Selfâ€Assembled 1,2â€Dithiolane Monolayers on Gold with Predictable Composition. ChemElectroChem, 2016, 3, 1422-1428.	3.4	9
24	Multianalytical Study of the Binding between a Small Chiral Molecule and a DNA Aptamer: Evidence for Asymmetric Steric Effect upon 3â€²- versus 5â€²-End Sequence Modification. Analytical Chemistry, 2016, 88, 11963-11971.	6.5	31
25	Ultimate Single-Copy DNA Detection Using Real-Time Electrochemical LAMP. ACS Sensors, 2016, 1, 904-912.	7.8	44
26	Chronoabsorptometry To Investigate Conduction-Band-Mediated Electron Transfer in Mesoporous TiO₂ Thin Films. Journal of Physical Chemistry C, 2015, 119, 14929-14937.	3.1	5
27	Efficient Chemisorption of Organophosphorous Redox Probes on Indium Tin Oxide Surfaces under Mild Conditions. Langmuir, 2015, 31, 1931-1940.	3.5	19
28	Fast magnetically driven electrodeposition of amorphous metal oxide water oxidation catalysts from carbon-coated metallic nanoparticles. Journal of Materials Chemistry A, 2015, 3, 16190-16197.	10.3	6
29	Tuning the reactivity of nanostructured indium tin oxide electrodes toward chemisorption. Chemical Communications, 2015, 51, 6944-6947.	4.1	7
30	Unraveling the charge transfer/electron transport in mesoporous semiconductive TiO₂ films by voltabsorptometry. Physical Chemistry Chemical Physics, 2015, 17, 10592-10607.	2.8	21
31	Rational Design of a Redoxâ€Labeled Chiral Target for an Enantioselective Aptamerâ€Based Electrochemical Binding Assay. Chemistry - A European Journal, 2014, 20, 2953-2959.	3.3	9
32	Spectroelectrochemistry of Fe^{III}- and Co^{III}-mimochrome VI artificial enzymes immobilized on mesoporous ITO electrodes. Chemical Communications, 2014, 50, 1894-1896.	4.1	18
33	Heterogeneous Reconstitution of the PQQ-Dependent Glucose Dehydrogenase Immobilized on an Electrode: A Sensitive Strategy for PQQ Detection Down to Picomolar Levels. Analytical Chemistry, 2014, 86, 2257-2267.	6.5	21
34	Kinetic Rotating Droplet Electrochemistry: A Simple and Versatile Method for Reaction Progress Kinetic Analysis in Microliter Volumes. Journal of the American Chemical Society, 2013, 135, 14215-14228.	13.7	25
35	Switching On/Off the Chemisorption of Thioctic-Based Self-Assembled Monolayers on Gold by Applying a Moderate Cathodic/Anodic Potential. Langmuir, 2013, 29, 5360-5368.	3.5	41
36	Unraveling the Mechanism of Catalytic Reduction of O₂ by Microperoxidase-11 Adsorbed within a Transparent 3D-Nanoporous ITO Film. Journal of the American Chemical Society, 2012, 134, 6834-6845.	13.7	58

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37	Homogeneous electrochemical monitoring of exonuclease III activity and its application to nucleic acid testing by target recycling. Chemical Communications, 2012, 48, 8772.	4.1	44
38	Simple and Highly Enantioselective Electrochemical Aptamer-Based Binding Assay for Trace Detection of Chiral Compounds. Analytical Chemistry, 2012, 84, 5415-5420.	6.5	46
39	Spectroelectrochemical Characterization of Small Hemoproteins Adsorbed within Nanostructured Mesoporous ITO Electrodes. Langmuir, 2012, 28, 14065-14072.	3.5	39
40	Free Energy Calculations in Electroactive Self-Assembled Monolayers (SAMs): Impact of the Chain Length on the Redox Reaction. Journal of Physical Chemistry B, 2011, 115, 11678-11687.	2.6	14
41	Real-Time Electrochemical PCR with a DNA Intercalating Redox Probe. Analytical Chemistry, 2011, 83, 1815-1821.	6.5	97
42	Effect of Substrate Inhibition and Cooperativity on the Electrochemical Responses of Glucose Dehydrogenase. Kinetic Characterization of Wild and Mutant Types. Journal of the American Chemical Society, 2011, 133, 12801-12809.	13.7	29
43	Real-time electrochemical monitoring of isothermal helicase-dependent amplification of nucleic acids. Analyst, The, 2011, 136, 3635.	3.5	66
44	Time-resolved UV-visible spectroelectrochemistry using transparent 3D-mesoporous nanocrystalline ITO electrodes. Chemical Communications, 2011, 47, 1863-1865.	4.1	32
45	Molecular Dynamics Simulations of Ferrocene-Terminated Self-Assembled Monolayers. Journal of Physical Chemistry B, 2010, 114, 6447-6454.	2.6	22
46	Real-Time Electrochemical Monitoring of the Polymerase Chain Reaction by Mediated Redox Catalysis. Journal of the American Chemical Society, 2009, 131, 11433-11441.	13.7	62
47	Description of Ferrocenylalkylthiol SAMs on Gold by Molecular Dynamics Simulations. Langmuir, 2009, 25, 9164-9172.	3.5	24
48	Highly ordered transparent mesoporous TiO2 thin films: an attractive matrix for efficient immobilization and spectroelectrochemical characterization of cytochrome c. Chemical Communications, 2009, , 7494.	4.1	21
49	Bienzymatic-based electrochemical DNA biosensors: a way to lower the detection limit of hybridization assays. Analyst, The, 2009, 134, 349-353.	3.5	23
50	Characterization of the Electron Transfer of a Ferrocene Redox Probe and a Histidine-Tagged Hemoprotein Specifically Bound to a Nitrilotriacetic-Terminated Self-Assembled Monolayer. Langmuir, 2009, 25, 6532-6542.	3.5	39
51	Oriented Immobilization of a Fully Active Monolayer of Histidineâ€Tagged Recombinant Laccase on Modified Gold Electrodes. Chemistry - A European Journal, 2008, 14, 7186-7192.	3.3	54
52	Electrochemical Functionalization of Carbon Surfaces by Aromatic Azide or Alkyne Molecules: A Versatile Platform for Click Chemistry. Chemistry - A European Journal, 2008, 14, 9286-9291.	3.3	136
53	Theory and Practice of Enzyme Bioaffinity Electrodes. Chemical, Enzymatic, and Electrochemical Amplification of in Situ Product Detection. Journal of the American Chemical Society, 2008, 130, 7276-7285.	13.7	27
54	Theory and Practice of Enzyme Bioaffinity Electrodes. Direct Electrochemical Product Detection. Journal of the American Chemical Society, 2008, 130, 7259-7275.	13.7	38

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55	Molecular Dynamics Description of Grafted Monolayers: Effect of the Surface Coverage. Journal of Physical Chemistry B, 2008, 112, 14221-14229.	2.6	9
56	Molecular simulations of grafted metal-chelating monolayers: methodology, structure and energy. Molecular Physics, 2008, 106, 1397-1411.	1.7	11
57	Electrode Surface Confinement of Self-Assembled Enzyme Aggregates Using Magnetic Nanoparticles and Its Application in Bioelectrocatalysis. Analytical Chemistry, 2007, 79, 187-194.	6.5	22
58	Evaluation of the analytical performances of avidin-modified carbon sensors based on a mediated horseradish peroxidase enzyme label and their application to the amperometric detection of nucleic acids. Biosensors and Bioelectronics, 2007, 22, 2906-2913.	10.1	31
59	Subfemtomolar electrochemical detection of target DNA by catalytic enlargement of the hybridized gold nanoparticle labels. Analyst, The, 2006, 131, 923.	3.5	49
60	Redox Enzymes Immobilized on Electrodes with Solution Cosubstrates. General Procedure for Simulation of Time-Resolved Catalytic Responses. Analytical Chemistry, 2006, 78, 3138-3143.	6.5	13
61	High Amplification Rates from the Association of Two Enzymes Confined within a Nanometric Layer Immobilized on an Electrode:Â Modeling and Illustrating Example. Journal of the American Chemical Society, 2006, 128, 6014-6015.	13.7	36
62	Cyclic Voltammetric Responses of Horseradish Peroxidase Multilayers on Electrodes. Langmuir, 2006, 22, 10807-10815.	3.5	14
63	Electrochemistry of Immobilized Redox Enzymes:Â Kinetic Characteristics of NADH Oxidation Catalysis at Diaphorase Monolayers Affinity Immobilized on Electrodes.. Journal of the American Chemical Society, 2006, 128, 2084-2092.	13.7	60
64	Avidinâ€“Biotin Assembling of Horseradish Peroxidase Multi-Monomolecular Layers on Electrodes. Australian Journal of Chemistry, 2006, 59, 257.	0.9	7
65	Electroenzymatic Reactions. Investigation of a Reductive Dehalogenase by Means of Electrogenerated Redox Cosubstrates. Journal of the American Chemical Society, 2005, 127, 13583-13588.	13.7	23
66	Dense Monolayers of Metal-Chelating Ligands Covalently Attached to Carbon Electrodes Electrochemically and Their Useful Application in Affinity Binding of Histidine-Tagged Proteins. Langmuir, 2005, 21, 3362-3375.	3.5	101
67	Catalysis by immobilized redox enzymes. Diagnosis of inactivation and reactivation effects through odd cyclic voltammetric responses. Journal of Electroanalytical Chemistry, 2004, 562, 43-52.	3.8	42
68	Cyclic voltammetry of immobilized redox enzymes. Interference of steady-state and non-steady-state Michaelisâ€“Menten kinetics of the enzymeâ€“redox cosubstrate system. Journal of Electroanalytical Chemistry, 2003, 549, 61-70.	3.8	17
69	Quantitative Analysis of Catalysis and Inhibition at Horseradish Peroxidase Monolayers Immobilized on an Electrode Surface. Journal of the American Chemical Society, 2003, 125, 9192-9203.	13.7	84
70	Mediated Electrochemistry of Horseradish Peroxidase. Catalysis and Inhibition. Journal of the American Chemical Society, 2002, 124, 240-253.	13.7	107
71	Kinetic control by the substrate and/or the cosubstrate in electrochemically monitored redox enzymatic homogeneous systems. Catalytic responses in cyclic voltammetry. Journal of Electroanalytical Chemistry, 2002, 521, 1-7.	3.8	36
72	Kinetic control by the substrate and the cosubstrate in electrochemically monitored redox enzymatic immobilized systems. Catalytic responses in cyclic voltammetry and steady state techniques. Journal of Electroanalytical Chemistry, 2002, 521, 8-15.	3.8	42

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73	Gold Nanoparticle-Based Quantitative Electrochemical Detection of Amplified Human Cytomegalovirus DNA Using Disposable Microband Electrodes. Analytical Chemistry, 2001, 73, 4450-4456.	6.5	328
74	Determination of horseradish peroxidase and a peroxidase-like iron porphyrin at a Nafion-modified electrode. Analyst, The, 2001, 126, 887-891.	3.5	12
75	Hybridization Assay at a Disposable Electrochemical Biosensor for the Attomole Detection of Amplified Human Cytomegalovirus DNA. Analytical Biochemistry, 2000, 284, 107-113.	2.4	156
76	Enzyme Affinity Assays Involving a Single-Use Electrochemical Sensor. Applications to the Enzyme Immunoassay of Human Chorionic Gonadotropin Hormone and Nucleic Acid Hybridization of Human Cytomegalovirus DNA. Electroanalysis, 2000, 12, 1447-1452.	2.9	38
77	Ion-exchange voltammetry at a surfactant-doped electrode: model of mass transfer kinetics to an anionic surface-charged electrode and its application for the sensitive determination of alkaline phosphatase. Journal of Electroanalytical Chemistry, 2000, 488, 48-58.	3.8	10
78	A disposable Protein A-based immunosensor for flow-injection assay with electrochemical detection. Analytica Chimica Acta, 2000, 404, 187-194.	5.4	62
79	An Electrochemical Metalloimmunoassay Based on a Colloidal Gold Label. Analytical Chemistry, 2000, 72, 5521-5528.	6.5	366
80	Competitive assay of 2,4-dichlorophenoxyacetic acid using a polymer imprinted with an electrochemically active tracer closely related to the analyte. Analyst, The, 2000, 125, 665-667.	3.5	18
81	Enzyme Affinity Assays Involving a Single-Use Electrochemical Sensor. Applications to the Enzyme Immunoassay of Human Chorionic Gonadotropin Hormone and Nucleic Acid Hybridization of Human Cytomegalovirus DNA. Electroanalysis, 2000, 12, 1447-1452.	2.9	1
82	Simultaneous detection of three drugs labeled by cationic metal complexes at a nafion-loaded carbon paste electrode. Talanta, 1999, 48, 201-208.	5.5	17
83	Biotinylation of Screen-Printed Carbon Electrodes through the Electrochemical Reduction of the Diazonium Salt of p-Aminobenzoyl Biocytin. Journal of the American Chemical Society, 1999, 121, 6946-6947.	13.7	67
84	Ion-Exchange Voltammetry as a Solid-Phase Microextraction Analytical Method:Â Factors Influencing the Mass Transfer to Perfluorosulfonated Ionomer Film-Coated Electrodes and Some of Their Consequences on the Current Responses. Analytical Chemistry, 1999, 71, 3192-3199.	6.5	9
85	An Immunomagnetic Electrochemical Sensor Based on a Perfluorosulfonate-Coated Screen-Printed Electrode for the Determination of 2,4-Dichlorophenoxyacetic Acid. Analytical Chemistry, 1999, 71, 2571-2577.	6.5	81
86	Detection of Cationic Phenolic Derivatives at a Surfactant-Doped Screen-Printed Electrode for the Sensitive Indirect Determination of Alkaline Phosphatase. Electroanalysis, 1998, 10, 1255-1259.	2.9	17
87	Redox labeling of two antiepileptic drugs with metallocenes and their simultaneous detection by a Nafion-modified electrode. Applied Organometallic Chemistry, 1998, 12, 59-65.	3.5	10
88	Detection of Cationic Phenolic Derivatives at a Surfactant-Doped Screen-Printed Electrode for the Sensitive Indirect Determination of Alkaline Phosphatase. Electroanalysis, 1998, 10, 1255-1259.	2.9	0
89	Subfemtomolar Determination of Alkaline Phosphatase at a Disposable Screen-Printed Electrode Modified with a Perfluorosulfonated Ionomer Film. Analytical Chemistry, 1997, 69, 4688-4694.	6.5	66
90	Electrocatalytic oxidation of hydrogen peroxide by nitroxyl radicals. Journal of Electroanalytical Chemistry, 1997, 422, 7-12.	3.8	17

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91	Simultaneous homogeneous immunoassay of phenytoin and phenobarbital using a Nafion-loaded carbon paste electrode and two redox cationic labels. Analytica Chimica Acta, 1997, 356, 195-203.	5.4	40
92	Renewable Perfluorosulfonated Ionomer Carbon Paste Electrode for Competitive Homogeneous Electrochemical Immunoassays Using a Redox Cationic Labeled Hapten. Analytical Chemistry, 1996, 68, 930-935.	6.5	26
93	Ferrocenylethyl Phosphate:Â An Improved Substrate for the Detection of Alkaline Phosphatase by Cathodic Stripping Ion-Exchange Voltammetry. Application to the Electrochemical Enzyme Affinity Assay of Avidin. Analytical Chemistry, 1996, 68, 4141-4148.	6.5	49
94	Alkaline phosphatase assay using a redox procationic labeled substrate and a renewable Nafion-loaded carbon paste electrode. Electroanalysis, 1996, 8, 880-884.	2.9	8
95	Enzyme immunoassay technique using alkaline phosphatase enzyme labels and a Nafion electrode as sensor. Journal of Pharmaceutical and Biomedical Analysis, 1996, 14, 1343-1349.	2.8	5
96	Redox cationic or procationic labeled drugs detected at a perfluorosulfonated ionomer film-coated electrode. Journal of Electroanalytical Chemistry, 1996, 402, 175-187.	3.8	24
97	New immunoassay techniques using Nafion-modified electrodes and cationic redox labels or enzyme labels. Analytica Chimica Acta, 1995, 311, 301-308.	5.4	13
98	Enzyme Immunoassays with an Electrochemical Detection Method Using Alkaline Phosphatase and a Perfluorosulfonated Ionomer-Modified Electrode. Application to Phenytoin Assays. Analytical Chemistry, 1995, 67, 1245-1253.	6.5	42
99	Determination of alkaline phosphatase using a NafionÂ®-modified electrode. Journal of Electroanalytical Chemistry, 1994, 379, 281-291.	3.8	23
100	Synthesis of cobaltocenium salts for use as redox labels and their incorporation into Nafion films. Applied Organometallic Chemistry, 1993, 7, 233-241.	3.5	4
101	Utilization of a NafionÂ® -modified electrode in a competitive homogeneous electrochemical immunoassay involving a redox cationic labelled haptenâ€"phenytoin. Journal of Electroanalytical Chemistry, 1993, 350, 329-335.	3.8	24
102	Homogeneous electrochemical immunoassay using a perfluorosulfonated ionomer-modified electrode as detector for a cationic-labeled hapten. Analytical Chemistry, 1993, 65, 1054-1060.	6.5	57
103	Synthesis of nitroxides for use as procationic labels and their incorporation into nafion films. Journal of Organic Chemistry, 1993, 58, 2573-2577.	3.2	26