

# Benoît Limoges

## List of Publications by Year in descending order

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103  
papers

3,822  
citations

109321

35  
h-index

138484

58  
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117  
all docs

117  
docs citations

117  
times ranked

3514  
citing authors

#	ARTICLE	IF	CITATIONS
1	An Electrochemical Metalloimmunoassay Based on a Colloidal Gold Label. <i>Analytical Chemistry</i> , 2000, 72, 5521-5528.	6.5	366
2	Gold Nanoparticle-Based Quantitative Electrochemical Detection of Amplified Human Cytomegalovirus DNA Using Disposable Microband Electrodes. <i>Analytical Chemistry</i> , 2001, 73, 4450-4456.	6.5	328
3	Hybridization Assay at a Disposable Electrochemical Biosensor for the Attomole Detection of Amplified Human Cytomegalovirus DNA. <i>Analytical Biochemistry</i> , 2000, 284, 107-113.	2.4	156
4	Electrochemical Functionalization of Carbon Surfaces by Aromatic Azide or Alkyne Molecules: A Versatile Platform for Click Chemistry. <i>Chemistry - A European Journal</i> , 2008, 14, 9286-9291.	3.3	136
5	Mediated Electrochemistry of Horseradish Peroxidase. Catalysis and Inhibition. <i>Journal of the American Chemical Society</i> , 2002, 124, 240-253.	13.7	107
6	Dense Monolayers of Metal-Chelating Ligands Covalently Attached to Carbon Electrodes Electrochemically and Their Useful Application in Affinity Binding of Histidine-Tagged Proteins. <i>Langmuir</i> , 2005, 21, 3362-3375.	3.5	101
7	Real-Time Electrochemical PCR with a DNA Intercalating Redox Probe. <i>Analytical Chemistry</i> , 2011, 83, 1815-1821.	6.5	97
8	Quantitative Analysis of Catalysis and Inhibition at Horseradish Peroxidase Monolayers Immobilized on an Electrode Surface. <i>Journal of the American Chemical Society</i> , 2003, 125, 9192-9203.	13.7	84
9	An Immunomagnetic Electrochemical Sensor Based on a Perfluorosulfonate-Coated Screen-Printed Electrode for the Determination of 2,4-Dichlorophenoxyacetic Acid. <i>Analytical Chemistry</i> , 1999, 71, 2571-2577.	6.5	81
10	Accessing the Two-Electron Charge Storage Capacity of MnO <sub>2</sub> in Mild Aqueous Electrolytes. <i>Advanced Energy Materials</i> , 2020, 10, 2000332.	19.5	69
11	Biotinylation of Screen-Printed Carbon Electrodes through the Electrochemical Reduction of the Diazonium Salt of p-Aminobenzoyl Biocytin. <i>Journal of the American Chemical Society</i> , 1999, 121, 6946-6947.	13.7	67
12	Subfemtomolar Determination of Alkaline Phosphatase at a Disposable Screen-Printed Electrode Modified with a Perfluorosulfonated Ionomer Film. <i>Analytical Chemistry</i> , 1997, 69, 4688-4694.	6.5	66
13	Real-time electrochemical monitoring of isothermal helicase-dependent amplification of nucleic acids. <i>Analyst</i> , 2011, 136, 3635.	3.5	66
14	A disposable Protein A-based immunosensor for flow-injection assay with electrochemical detection. <i>Analytica Chimica Acta</i> , 2000, 404, 187-194.	5.4	62
15	Real-Time Electrochemical Monitoring of the Polymerase Chain Reaction by Mediated Redox Catalysis. <i>Journal of the American Chemical Society</i> , 2009, 131, 11433-11441.	13.7	62
16	Electrochemistry of Immobilized Redox Enzymes: Kinetic Characteristics of NADH Oxidation Catalysis at Diaphorase Monolayers Affinity Immobilized on Electrodes. <i>Journal of the American Chemical Society</i> , 2006, 128, 2084-2092.	13.7	60
17	Unraveling the Mechanism of Catalytic Reduction of O <sub>2</sub> by Microperoxidase-11 Adsorbed within a Transparent 3D-Nanoporous ITO Film. <i>Journal of the American Chemical Society</i> , 2012, 134, 6834-6845.	13.7	58
18	Homogeneous electrochemical immunoassay using a perfluorosulfonated ionomer-modified electrode as detector for a cationic-labeled hapten. <i>Analytical Chemistry</i> , 1993, 65, 1054-1060.	6.5	57

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19	Oriented Immobilization of a Fully Active Monolayer of Histidine-Tagged Recombinant Laccase on Modified Gold Electrodes. <i>Chemistry - A European Journal</i> , 2008, 14, 7186-7192.	3.3	54
20	Ferrocenylethyl Phosphate: An Improved Substrate for the Detection of Alkaline Phosphatase by Cathodic Stripping Ion-Exchange Voltammetry. Application to the Electrochemical Enzyme Affinity Assay of Avidin. <i>Analytical Chemistry</i> , 1996, 68, 4141-4148.	6.5	49
21	Subfemtomolar electrochemical detection of target DNA by catalytic enlargement of the hybridized gold nanoparticle labels. <i>Analyst</i> , 2006, 131, 923.	3.5	49
22	Evidencing Fast, Massive, and Reversible H <sup>+</sup> Insertion in Nanostructured TiO <sub>2</sub> Electrodes at Neutral pH. Where Do Protons Come From?. <i>Journal of Physical Chemistry C</i> , 2017, 121, 10325-10335.	3.1	48
23	Simple and Highly Enantioselective Electrochemical Aptamer-Based Binding Assay for Trace Detection of Chiral Compounds. <i>Analytical Chemistry</i> , 2012, 84, 5415-5420.	6.5	46
24	Homogeneous electrochemical monitoring of exonuclease III activity and its application to nucleic acid testing by target recycling. <i>Chemical Communications</i> , 2012, 48, 8772.	4.1	44
25	Ultimate Single-Copy DNA Detection Using Real-Time Electrochemical LAMP. <i>ACS Sensors</i> , 2016, 1, 904-912.	7.8	44
26	Enzyme Immunoassays with an Electrochemical Detection Method Using Alkaline Phosphatase and a Perfluorosulfonated Ionomer-Modified Electrode. Application to Phenytoin Assays. <i>Analytical Chemistry</i> , 1995, 67, 1245-1253.	6.5	42
27	Kinetic control by the substrate and the cosubstrate in electrochemically monitored redox enzymatic immobilized systems. Catalytic responses in cyclic voltammetry and steady state techniques. <i>Journal of Electroanalytical Chemistry</i> , 2002, 521, 8-15.	3.8	42
28	Catalysis by immobilized redox enzymes. Diagnosis of inactivation and reactivation effects through odd cyclic voltammetric responses. <i>Journal of Electroanalytical Chemistry</i> , 2004, 562, 43-52.	3.8	42
29	On the unsuspected role of multivalent metal ions on the charge storage of a metal oxide electrode in mild aqueous electrolytes. <i>Chemical Science</i> , 2019, 10, 8752-8763.	7.4	42
30	Switching On/Off the Chemisorption of Thioctic-Based Self-Assembled Monolayers on Gold by Applying a Moderate Cathodic/Anodic Potential. <i>Langmuir</i> , 2013, 29, 5360-5368.	3.5	41
31	Simultaneous homogeneous immunoassay of phenytoin and phenobarbital using a Nafion-loaded carbon paste electrode and two redox cationic labels. <i>Analytica Chimica Acta</i> , 1997, 356, 195-203.	5.4	40
32	Characterization of the Electron Transfer of a Ferrocene Redox Probe and a Histidine-Tagged Hemoprotein Specifically Bound to a Nitrilotriacetic-Terminated Self-Assembled Monolayer. <i>Langmuir</i> , 2009, 25, 6532-6542.	3.5	39
33	Spectroelectrochemical Characterization of Small Hemoproteins Adsorbed within Nanostructured Mesoporous ITO Electrodes. <i>Langmuir</i> , 2012, 28, 14065-14072.	3.5	39
34	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. <i>Electroanalysis</i> , 2000, 12, 1447-1452.	2.9	38
35	Theory and Practice of Enzyme Bioaffinity Electrodes. Direct Electrochemical Product Detection. <i>Journal of the American Chemical Society</i> , 2008, 130, 7259-7275.	13.7	38
36	Evidence of Bulk Proton Insertion in Nanostructured Anatase and Amorphous TiO <sub>2</sub> Electrodes. <i>Chemistry of Materials</i> , 2021, 33, 3436-3448.	6.7	37

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37	Kinetic control by the substrate and/or the cosubstrate in electrochemically monitored redox enzymatic homogeneous systems. Catalytic responses in cyclic voltammetry. <i>Journal of Electroanalytical Chemistry</i> , 2002, 521, 1-7.	3.8	36
38	High Amplification Rates from the Association of Two Enzymes Confined within a Nanometric Layer Immobilized on an Electrode: Modeling and Illustrating Example. <i>Journal of the American Chemical Society</i> , 2006, 128, 6014-6015.	13.7	36
39	Time-resolved UV-visible spectroelectrochemistry using transparent 3D-mesoporous nanocrystalline ITO electrodes. <i>Chemical Communications</i> , 2011, 47, 1863-1865.	4.1	32
40	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. <i>Biosensors and Bioelectronics</i> , 2007, 22, 2906-2913.	10.1	31
41	Multianalytical Study of the Binding between a Small Chiral Molecule and a DNA Aptamer: Evidence for Asymmetric Steric Effect upon 3'- versus 5'-End Sequence Modification. <i>Analytical Chemistry</i> , 2016, 88, 11963-11971.	6.5	31
42	Effect of Substrate Inhibition and Cooperativity on the Electrochemical Responses of Glucose Dehydrogenase. Kinetic Characterization of Wild and Mutant Types. <i>Journal of the American Chemical Society</i> , 2011, 133, 12801-12809.	13.7	29
43	Theory and Practice of Enzyme Bioaffinity Electrodes. Chemical, Enzymatic, and Electrochemical Amplification of in Situ Product Detection. <i>Journal of the American Chemical Society</i> , 2008, 130, 7276-7285.	13.7	27
44	Synthesis of nitroxides for use as procationic labels and their incorporation into nafion films. <i>Journal of Organic Chemistry</i> , 1993, 58, 2573-2577.	3.2	26
45	Renewable Perfluorosulfonated Ionomer Carbon Paste Electrode for Competitive Homogeneous Electrochemical Immunoassays Using a Redox Cationic Labeled Hapten. <i>Analytical Chemistry</i> , 1996, 68, 930-935.	6.5	26
46	Real-time electrochemical LAMP: a rational comparative study of different DNA intercalating and non-intercalating redox probes. <i>Analyst</i> , 2016, 141, 4196-4203.	3.5	26
47	Kinetic Rotating Droplet Electrochemistry: A Simple and Versatile Method for Reaction Progress Kinetic Analysis in Microliter Volumes. <i>Journal of the American Chemical Society</i> , 2013, 135, 14215-14228.	13.7	25
48	Utilization of a Nafion®-modified electrode in a competitive homogeneous electrochemical immunoassay involving a redox cationic labelled hapten "phenytoin". <i>Journal of Electroanalytical Chemistry</i> , 1993, 350, 329-335.	3.8	24
49	Redox cationic or procationic labeled drugs detected at a perfluorosulfonated ionomer film-coated electrode. <i>Journal of Electroanalytical Chemistry</i> , 1996, 402, 175-187.	3.8	24
50	Description of Ferrocenylalkylthiol SAMs on Gold by Molecular Dynamics Simulations. <i>Langmuir</i> , 2009, 25, 9164-9172.	3.5	24
51	Determination of alkaline phosphatase using a Nafion®-modified electrode. <i>Journal of Electroanalytical Chemistry</i> , 1994, 379, 281-291.	3.8	23
52	Electroenzymatic Reactions. Investigation of a Reductive Dehalogenase by Means of Electrogenerated Redox Cosubstrates. <i>Journal of the American Chemical Society</i> , 2005, 127, 13583-13588.	13.7	23
53	Bienzymatic-based electrochemical DNA biosensors: a way to lower the detection limit of hybridization assays. <i>Analyst</i> , 2009, 134, 349-353.	3.5	23
54	Nanostructured Electrode Enabling Fast and Fully Reversible MnO <sub>2</sub> -to-Mn <sup>2+</sup> Conversion in Mild Buffered Aqueous Electrolytes. <i>ACS Applied Energy Materials</i> , 2020, 3, 7610-7618.	5.1	23

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55	Electrode Surface Confinement of Self-Assembled Enzyme Aggregates Using Magnetic Nanoparticles and Its Application in Bioelectrocatalysis. <i>Analytical Chemistry</i> , 2007, 79, 187-194.	6.5	22
56	Molecular Dynamics Simulations of Ferrocene-Terminated Self-Assembled Monolayers. <i>Journal of Physical Chemistry B</i> , 2010, 114, 6447-6454.	2.6	22
57	Highly ordered transparent mesoporous TiO <sub>2</sub> thin films: an attractive matrix for efficient immobilization and spectroelectrochemical characterization of cytochrome c. <i>Chemical Communications</i> , 2009, , 7494.	4.1	21
58	Heterogeneous Reconstitution of the PQQ-Dependent Glucose Dehydrogenase Immobilized on an Electrode: A Sensitive Strategy for PQQ Detection Down to Picomolar Levels. <i>Analytical Chemistry</i> , 2014, 86, 2257-2267.	6.5	21
59	Unraveling the charge transfer/electron transport in mesoporous semiconductive TiO <sub>2</sub> films by voltabsorptometry. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 10592-10607.	2.8	21
60	Efficient Chemisorption of Organophosphorous Redox Probes on Indium Tin Oxide Surfaces under Mild Conditions. <i>Langmuir</i> , 2015, 31, 1931-1940.	3.5	19
61	Competitive assay of 2,4-dichlorophenoxyacetic acid using a polymer imprinted with an electrochemically active tracer closely related to the analyte. <i>Analyst, The</i> , 2000, 125, 665-667.	3.5	18
62	Spectroelectrochemistry of Fe <sup>III</sup> - and Co <sup>III</sup> -mimochrome VI artificial enzymes immobilized on mesoporous ITO electrodes. <i>Chemical Communications</i> , 2014, 50, 1894-1896.	4.1	18
63	Cyclic voltammetry modeling of proton transport effects on redox charge storage in conductive materials: application to a TiO <sub>2</sub> mesoporous film. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 17944-17951.	2.8	18
64	The Role of Al <sup>3+</sup> -Based Aqueous Electrolytes in the Charge Storage Mechanism of MnO <sub>x</sub> Cathodes. <i>Small</i> , 2021, 17, e2101515.	10.0	18
65	Electrocatalytic oxidation of hydrogen peroxide by nitroxyl radicals. <i>Journal of Electroanalytical Chemistry</i> , 1997, 422, 7-12.	3.8	17
66	Detection of Cationic Phenolic Derivatives at a Surfactant-Doped Screen-Printed Electrode for the Sensitive Indirect Determination of Alkaline Phosphatase. <i>Electroanalysis</i> , 1998, 10, 1255-1259.	2.9	17
67	Simultaneous detection of three drugs labeled by cationic metal complexes at a nafion-loaded carbon paste electrode. <i>Talanta</i> , 1999, 48, 201-208.	5.5	17
68	Cyclic voltammetry of immobilized redox enzymes. Interference of steady-state and non-steady-state Michaelis-Menten kinetics of the enzyme-redox cosubstrate system. <i>Journal of Electroanalytical Chemistry</i> , 2003, 549, 61-70.	3.8	17
69	Introducing Molecular Functionalities within High Surface Area Nanostructured ITO Electrodes through Diazonium Electrografting. <i>ChemElectroChem</i> , 2018, 5, 1625-1630.	3.4	15
70	Cyclic Voltammetric Responses of Horseradish Peroxidase Multilayers on Electrodes. <i>Langmuir</i> , 2006, 22, 10807-10815.	3.5	14
71	Free Energy Calculations in Electroactive Self-Assembled Monolayers (SAMs): Impact of the Chain Length on the Redox Reaction. <i>Journal of Physical Chemistry B</i> , 2011, 115, 11678-11687.	2.6	14
72	New immunoassay techniques using Nafion-modified electrodes and cationic redox labels or enzyme labels. <i>Analytica Chimica Acta</i> , 1995, 311, 301-308.	5.4	13

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73	Redox Enzymes Immobilized on Electrodes with Solution Cosubstrates. General Procedure for Simulation of Time-Resolved Catalytic Responses. <i>Analytical Chemistry</i> , 2006, 78, 3138-3143.	6.5	13
74	On the decisive role of the sulfur-based anchoring group in the electro-assisted formation of self-assembled monolayers on gold. <i>Electrochimica Acta</i> , 2017, 257, 165-171.	5.2	13
75	Determination of horseradish peroxidase and a peroxidase-like iron porphyrin at a Nafion-modified electrode. <i>Analyst, The</i> , 2001, 126, 887-891.	3.5	12
76	Towards a high $\text{MnO}_2$ loading and gravimetric capacity from proton-coupled $\text{Mn}^{4+}/\text{Mn}^{2+}$ reactions using a 3D free-standing conducting scaffold. <i>Journal of Materials Chemistry A</i> , 2021, 9, 1500-1506.	10.3	12
77	Molecular simulations of grafted metal-chelating monolayers: methodology, structure and energy. <i>Molecular Physics</i> , 2008, 106, 1397-1411.	1.7	11
78	Detection of a few DNA copies by real-time electrochemical polymerase chain reaction. <i>Analyst, The</i> , 2017, 142, 3432-3440.	3.5	11
79	Exponential Molecular Amplification by $\text{H}_2\text{O}_2$ -Mediated Autocatalytic Deprotection of Boronic Ester Probes to Redox Cyclers. <i>Chemistry - A European Journal</i> , 2019, 25, 7534-7546.	3.3	11
80	Redox labeling of two antiepileptic drugs with metallocenes and their simultaneous detection by a Nafion-modified electrode. <i>Applied Organometallic Chemistry</i> , 1998, 12, 59-65.	3.5	10
81	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. <i>Journal of Electroanalytical Chemistry</i> , 2000, 488, 48-58.	3.8	10
82	Ion-Exchange Voltammetry as a Solid-Phase Microextraction Analytical Method: Factors Influencing the Mass Transfer to Perfluorosulfonated Ionomer Film-Coated Electrodes and Some of Their Consequences on the Current Responses. <i>Analytical Chemistry</i> , 1999, 71, 3192-3199.	6.5	9
83	Molecular Dynamics Description of Grafted Monolayers: Effect of the Surface Coverage. <i>Journal of Physical Chemistry B</i> , 2008, 112, 14221-14229.	2.6	9
84	Rational Design of a Redox-Labeled Chiral Target for an Enantioselective Aptamer-Based Electrochemical Binding Assay. <i>Chemistry - A European Journal</i> , 2014, 20, 2953-2959.	3.3	9
85	Electro-Assisted Deposition of Binary Self-Assembled 1,2-Ethiolane Monolayers on Gold with Predictable Composition. <i>ChemElectroChem</i> , 2016, 3, 1422-1428.	3.4	9
86	Alkaline phosphatase assay using a redox pro-cationic labeled substrate and a renewable Nafion-loaded carbon paste electrode. <i>Electroanalysis</i> , 1996, 8, 880-884.	2.9	8
87	An optical $\text{H}_2\text{S}$ biosensor based on the chemoselective Hb-I protein tethered to a transparent, high surface area nanocolumnar electrode. <i>Sensors and Actuators B: Chemical</i> , 2019, 290, 326-335.	7.8	8
88	Tuning the reactivity of nanostructured indium tin oxide electrodes toward chemisorption. <i>Chemical Communications</i> , 2015, 51, 6944-6947.	4.1	7
89	A Pioneering Career in Electrochemistry: Jean-Michel Savant. <i>ACS Catalysis</i> , 2021, 11, 3224-3238.	11.2	7
90	Avidin-Biotin Assembling of Horseradish Peroxidase Multi-Monomolecular Layers on Electrodes. <i>Australian Journal of Chemistry</i> , 2006, 59, 257.	0.9	7

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91	Fast magnetically driven electrodeposition of amorphous metal oxide water oxidation catalysts from carbon-coated metallic nanoparticles. <i>Journal of Materials Chemistry A</i> , 2015, 3, 16190-16197.	10.3	6
92	Enzyme immunoassay technique using alkaline phosphatase enzyme labels and a Nafion electrode as sensor. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 1996, 14, 1343-1349.	2.8	5
93	Chronoabsorptometry To Investigate Conduction-Band-Mediated Electron Transfer in Mesoporous TiO <sub>2</sub> Thin Films. <i>Journal of Physical Chemistry C</i> , 2015, 119, 14929-14937.	3.1	5
94	An autocatalytic organic reaction network based on cross-catalysis. <i>Chemical Communications</i> , 2021, 57, 11374-11377.	4.1	5
95	Synthesis of cobaltocenium salts for use as redox labels and their incorporation into Nafion films. <i>Applied Organometallic Chemistry</i> , 1993, 7, 233-241.	3.5	4
96	Use of a redox probe for an electrochemical RNA-ligand binding assay in microliter droplets. <i>Chemical Communications</i> , 2017, 53, 1140-1143.	4.1	4
97	Mechanism of Reconstitution/Activation of the Soluble PQQ-Dependent Glucose Dehydrogenase from <i>Acinetobacter calcoaceticus</i> : A Comprehensive Study. <i>ACS Omega</i> , 2020, 5, 2015-2026.	3.5	3
98	Specific Versus Non-specific Response in Exponential Molecular Amplification from Cross-Catalysis: Modeling the Influence of Background Amplifications on the Analytical Performances. <i>ChemPhysChem</i> , 2021, 22, 1611-1621.	2.1	2
99	Investigating Charge Transfer in Functionalized Mesoporous EISA-SnO <sub>2</sub> Films. <i>Journal of Physical Chemistry C</i> , 2017, 121, 23207-23217.	3.1	1
100	Interplay Between Charge Accumulation and Oxygen Reduction Catalysis in Nanostructured TiO <sub>2</sub> Electrodes Functionalized with a Molecular Catalyst. <i>ChemElectroChem</i> , 2021, 8, 2640-2648.	3.4	1
101	Exponential amplification by redox cross-catalysis and unmasking of doubly protected molecular probes. <i>Chemical Science</i> , 2022, 13, 2764-2777.	7.4	1
102	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. <i>Electroanalysis</i> , 2000, 12, 1447-1452.	2.9	1
103	Detection of Cationic Phenolic Derivatives at a Surfactant-Doped Screen-Printed Electrode for the Sensitive Indirect Determination of Alkaline Phosphatase. <i>Electroanalysis</i> , 1998, 10, 1255-1259.	2.9	0