

Laurent Thouin

List of Publications by Year in descending order

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2,748
citations

147801

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docs citations

72
times ranked

2408
citing authors

#	ARTICLE	IF	CITATIONS
1	Ferrocene-Mediated Proton-Coupled Electron Transfer in a Series of Ferrocifen-Type Breast-Cancer Drug Candidates. <i>Angewandte Chemie - International Edition</i> , 2006, 45, 285-290.	13.8	373
2	Cyclic voltammetric studies of copper complexes catalyzing atom transfer radical polymerization. <i>Macromolecular Chemistry and Physics</i> , 2000, 201, 1625-1631.	2.2	224
3	The real meaning of Nernst's steady diffusion layer concept under non-forced hydrodynamic conditions. A simple model based on Levich's seminal view of convection. <i>Journal of Electroanalytical Chemistry</i> , 2001, 500, 62-70.	3.8	140
4	Imaging Concentration Profiles of Redox-Active Species with Nanometric Amperometric Probes: Effect of Natural Convection on Transport at Microdisk Electrodes. <i>Angewandte Chemie - International Edition</i> , 2004, 43, 1431-1435.	13.8	91
5	Theory and Experiments of Transport at Channel Microband Electrodes under Laminar Flows. 1. Steady-State Regimes at a Single Electrode. <i>Analytical Chemistry</i> , 2007, 79, 8502-8510.	6.5	84
6	Theory and Experiments of Transport at Channel Microband Electrodes under Laminar Flows. 2. Electrochemical Regimes at Double Microband Assemblies under Steady State. <i>Analytical Chemistry</i> , 2008, 80, 9483-9490.	6.5	83
7	Difference between Ultramicroelectrodes and Microelectrodes: Influence of Natural Convection. <i>Analytical Chemistry</i> , 2010, 82, 6933-6939.	6.5	81
8	Formation of copper indium diselenide by electrodeposition. <i>Journal of Electroanalytical Chemistry</i> , 1994, 374, 81-88.	3.8	76
9	Highly Sensitive Platinum-Black Coated Platinum Electrodes for Electrochemical Detection of Hydrogen Peroxide and Nitrite in Microchannel. <i>Electroanalysis</i> , 2013, 25, 895-902.	2.9	71
10	Electrodeposition and Characterization of CuInSe ₂ Thin Films. <i>Journal of the Electrochemical Society</i> , 1995, 142, 2996-3001.	2.9	69
11	Using electrochemical coupling between parallel microbands for in situ monitoring of flow rates in microfluidic channels. <i>Journal of Electroanalytical Chemistry</i> , 2004, 573, 333-343.	3.8	64
12	Mapping dynamic concentration profiles with micrometric resolution near an active microscopic surface by confocal resonance Raman microscopy. Application to diffusion near ultramicroelectrodes: first direct evidence for a conproportionation reaction. <i>Journal of Electroanalytical Chemistry</i> , 2000, 484, 1-17.	3.8	60
13	Anodic abatement of organic pollutants in water in micro reactors. <i>Journal of Electroanalytical Chemistry</i> , 2010, 638, 293-296.	3.8	56
14	Mapping concentration profiles within the diffusion layer of an electrode. <i>Electrochemistry Communications</i> , 2000, 2, 353-358.	4.7	53
15	Spatially Resolved Electrochemiluminescence on an Array of Electrode Tips. <i>Analytical Chemistry</i> , 2003, 75, 4382-4388.	6.5	50
16	Electrodeposition of copper-selenium binaries in a citric acid medium. <i>Electrochimica Acta</i> , 1993, 38, 2387-2394.	5.2	48
17	Cyclic voltammetry at microelectrodes. Influence of natural convection on diffusion layers as characterized by in situ mapping of concentration profiles. <i>Electrochemistry Communications</i> , 2009, 11, 1269-1272.	4.7	47
18	Mapping Electrochemiluminescence as Generated at Double-Band Microelectrodes by Confocal Microscopy under Steady State. <i>ChemPhysChem</i> , 2006, 7, 1322-1327.	2.1	46

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19	Mapping concentration profiles within the diffusion layer of an electrodePart I. Confocal resonance Raman microscopy. <i>Electrochemistry Communications</i> , 2000, 2, 235-239.	4.7	45
20	Electrochemical time-of-flight responses at double-band generator-collector devices under pulsed conditions. <i>Journal of Electroanalytical Chemistry</i> , 2006, 593, 194-202.	3.8	45
21	Synthesis of Lipidated eNOS Peptides by Combining Enzymatic, Noble Metal- and Acid-Mediated Protecting Group Techniques with Solid Phase Peptide Synthesis and Fragment Condensation in Solution. <i>Chemistry - A European Journal</i> , 2001, 7, 2933-2939.	3.3	42
22	Mapping concentration profiles within the diffusion layer of an electrodePart II. Potentiometric measurements with an ultramicroelectrode. <i>Electrochemistry Communications</i> , 2000, 2, 248-253.	4.7	41
23	Diffusion at Double Microband Electrodes Operated within a Thin Film Coating. Theory and Experimental Illustration. <i>Journal of Physical Chemistry B</i> , 2001, 105, 8694-8703.	2.6	41
24	Solar cells with improved efficiency based on electrodeposited copper indium diselenide thin films. <i>Advanced Materials</i> , 1994, 6, 379-381.	21.0	39
25	General Concept of High-Performance Amperometric Detector for Microfluidic (Bio)Analytical Chips. <i>Analytical Chemistry</i> , 2008, 80, 4976-4985.	6.5	37
26	Electrochemical Detection of Nitric Oxide and Peroxynitrite Anion in Microchannels at Highly Sensitive Platinum-Black Coated Electrodes. Application to ROS and RNS Mixtures prior to Biological Investigations. <i>Electrochimica Acta</i> , 2014, 144, 111-118.	5.2	37
27	Monitoring Concentration Profiles In Situ with an Ultramicroelectrode Probe. <i>Electroanalysis</i> , 2001, 13, 646-652.	2.9	35
28	Remote Fluorescence Imaging of Dynamic Concentration Profiles with Micrometer Resolution Using a Coherent Optical Fiber Bundle. <i>Analytical Chemistry</i> , 2004, 76, 7202-7210.	6.5	35
29	Artificial Neurons with Logical Properties Based on Paired-Band Microelectrode Assemblies. <i>Chemistry - A European Journal</i> , 1999, 5, 456-465.	3.3	34
30	About potential measurements in steady state voltammetry at low electrolyte/analyte concentration ratios. <i>Journal of Electroanalytical Chemistry</i> , 1998, 443, 137-148.	3.8	33
31	Alteration of diffusional transport by migration and natural convection. Theoretical and direct experimental evidences upon monitoring steady-state concentration profiles at planar electrodes. <i>Journal of Electroanalytical Chemistry</i> , 2007, 601, 17-28.	3.8	33
32	Direct Electroanalytical Method for Alternative Assessment of Global Antioxidant Capacity Using Microchannel Electrodes. <i>Analytical Chemistry</i> , 2013, 85, 9057-9063.	6.5	32
33	Downstream Simultaneous Electrochemical Detection of Primary Reactive Oxygen and Nitrogen Species Released by Cell Populations in an Integrated Microfluidic Device. <i>Analytical Chemistry</i> , 2018, 90, 9386-9394.	6.5	31
34	Mass Transport at Microband Electrodes: Transient, Quasi-Steady-State, and Convective Regimes. <i>ChemPhysChem</i> , 2012, 13, 1562-1568.	2.1	30
35	Theory and Experiments of Transport at Channel Microband Electrodes Under Laminar Flow. 3. Electrochemical Detection at Electrode Arrays under Steady State. <i>Analytical Chemistry</i> , 2010, 82, 2434-2440.	6.5	27
36	Potential measurements in steady state voltammetry at low electrolyte/analyte concentration ratios. Role of convection on ohmic drop: a simplified model. <i>Journal of Electroanalytical Chemistry</i> , 1998, 446, 91-105.	3.8	25

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37	Steady state voltammetry at low electrolyte/reactant concentration ratios: what it means and what it does not mean. <i>Journal of Electroanalytical Chemistry</i> , 1999, 463, 45-52.	3.8	24
38	Diffusional Cross-Talk between Paired Microband Electrodes Operating within a Thin Film: A Theory for Redox Couples with Unequal Diffusion Coefficients. <i>Journal of Physical Chemistry B</i> , 2002, 106, 11565-11571.	2.6	24
39	Development of a flow microsensor for selective detection of nitric oxide in the presence of hydrogen peroxide. <i>Electrochimica Acta</i> , 2018, 286, 365-373.	5.2	21
40	Micrometrically Controlled Surface Modification of Teflon [®] by Redox Catalysis: Electrochemical Coupling between Teflon [®] and a Gold Band Ultramicroelectrode. <i>Chemistry - A European Journal</i> , 2000, 6, 820-835.	3.3	20
41	Electrocarboxylation of Benzyl Halides through Redox Catalysis on the Preparative Scale. <i>Chemistry - A European Journal</i> , 2006, 12, 7433-7447.	3.3	19
42	Channel Microband Chronoamperometry: From Transient to Steady-State Regimes. <i>Analytical Chemistry</i> , 2011, 83, 4170-4177.	6.5	19
43	Dichloro(1,4,8,11-tetraazacyclotetradecane)manganese(III) chloride: cis-trans isomerisation evidenced by infrared and electrochemical studies. <i>Journal of the Chemical Society Dalton Transactions</i> , 1998, , 2233-2240.	1.1	18
44	First direct experimental evidence of migration contributions through monitoring of concentration profiles at low supporting electrolyte concentration. <i>Electrochemistry Communications</i> , 2004, 6, 887-891.	4.7	18
45	Multi-chambers Microsystem for Simultaneous and Direct Electrochemical Detection of Reactive Oxygen and Nitrogen Species Released by Cell Populations. <i>Electroanalysis</i> , 2016, 28, 1865-1872.	2.9	17
46	Relation Between Physical Properties and Deposition Conditions of Electrodeposited CuInSe ₂ . <i>Journal of the Electrochemical Society</i> , 1996, 143, 2173-2180.	2.9	15
47	Mechanistic investigation of the anodic oxidation of 3,4,5-trimethoxytoluene in acetonitrile. <i>Journal of Electroanalytical Chemistry</i> , 2002, 537, 39-46.	3.8	15
48	Theory and experiments of microelectrodes performing as concentration probes within microfluidic channels with high temporal resolution. <i>Electrochemistry Communications</i> , 2011, 13, 1459-1461.	4.7	14
49	Mass Transport at Infinite Regular Arrays of Microband Electrodes Submitted to Natural Convection: Theory and Experiments. <i>Analytical Chemistry</i> , 2013, 85, 12062-12069.	6.5	14
50	Interactions between Human Antibodies and Synthetic Conformational Peptide Epitopes: Innovative Approach for Electrochemical Detection of Biomarkers of Multiple Sclerosis at Platinum Electrodes. <i>Electrochimica Acta</i> , 2015, 176, 1239-1247.	5.2	14
51	Microelectrode Arrays. , 2007, , 391-428.		13
52	Effects of chemical environment on diffusivities within thin Nafion [®] films as monitored from chronoamperometric responses of generator-collector double microband assemblies. <i>Journal of Electroanalytical Chemistry</i> , 2003, 547, 151-161.	3.8	12
53	Optical and electrochemical properties of soluble donor-acceptor compounds as potential molecular wires and electrochemically-triggered optical switches. <i>Physical Chemistry Chemical Physics</i> , 2003, 5, 4576-4582.	2.8	12
54	Electrochemical detection of droplet content in microfluidic devices: Evidence of internal recirculating convection within droplets. <i>Electrochemistry Communications</i> , 2017, 80, 55-59.	4.7	11

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55	Electrochemical Detection of Droplets in Microfluidic Devices: Simultaneous Determination of Velocity, Size and Content. <i>Electroanalysis</i> , 2019, 31, 2103-2111.	2.9	10
56	Mapping Concentration Profiles within the Diffusion Layer of an Electrode: Application to Redox Catalysis. <i>Chemistry - A European Journal</i> , 2001, 7, 2940-2956.	3.3	8
57	Tetraarylporphyrin synthesis by electrochemical oxidation of porphyrinogens. <i>Electrochimica Acta</i> , 2001, 46, 1899-1903.	5.2	8
58	Mimicking neuronal synaptic behavior: Processing of information with AND or OR Boolean logic via paired-band microelectrode assemblies. <i>Comptes Rendus De L'Academie Des Sciences - Series IIc: Chemistry</i> , 1998, 1, 509-515.	0.1	7
59	Confocal Microscopy Imaging of Electrochemiluminescence at Double Band Microelectrode Assemblies: Numerical Solution of the Inverse Optical Problem. <i>ChemPhysChem</i> , 2007, 8, 1664-1676.	2.1	7
60	Understanding Mass Transport at Channel Microband Electrodes: Influence of Confined Space under Stagnant Conditions. <i>Electrochimica Acta</i> , 2016, 202, 122-130.	5.2	7
61	Electrochemical Generation and Detection of Transient Concentration Gradients in Microfluidic Channels. Theoretical and Experimental Investigations. <i>Frontiers in Chemistry</i> , 2019, 7, 704.	3.6	6
62	Mesure directe in situ de la vitesse d'un écoulement microfluidique par couplage électrochimique entre deux microbandes parallèles. <i>Houille Blanche</i> , 2006, 92, 60-64.	0.3	5
63	Electrochemical assessments of droplet contents in microfluidic channels. Application to the titration of heterogeneous droplets. <i>Analytica Chimica Acta</i> , 2021, 1155, 338344.	5.4	4
64	Electrografting of aryl diazonium on thin layer platinum microbands: Towards customized surface functionalization within microsystems. <i>Electrochemistry Communications</i> , 2016, 70, 78-81.	4.7	3
65	Electrochemical Generation of Steady-State Linear Concentration Gradients within Microfluidic Channels Perpendicular to the Flow Field. <i>Analytical Chemistry</i> , 2020, 92, 7699-7707.	6.5	3
66	Redox Control of Particle Deposition from Drying Drops. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 3374-3384.	8.0	3
67	Comparison of three different configurations of dual ultramicroelectrodes for the decomposition of S-Nitroso-L-glutathione and the direct detection of nitric oxide. <i>Mikrochimica Acta</i> , 2012, 179, 337-343.	5.0	2
68	Optimization of electrochemical time of flight measurements for precise determinations of diffusion coefficients over a wide range in various media. <i>Electrochimica Acta</i> , 2020, 345, 136113.	5.2	2
69	Electrochemical oxidation of half-open ruthenocene compounds. Role of acyclic ligands on acetonitrile coordination. <i>Journal of Electroanalytical Chemistry</i> , 2007, 611, 96-106.	3.8	1
70	Quantitative electrolysis of droplet contents in microfluidic channels. Concept and experimental validation. <i>Electrochimica Acta</i> , 2021, 393, 139017.	5.2	1
71	Reversible microfluidics device for precious metal electrodeposition and depletion yield studies. <i>Electrochimica Acta</i> , 2020, 352, 136474.	5.2	1