Laurent Thouin

List of Publications by Year
in descending order

71 papers	2,748 citations	147566 31 h-index	182168 51 g-index
72 all docs	72 docs citations	72 times ranked	2408 citing authors

#	Article	IF	Citations
1	Redox Control of Particle Deposition from Drying Drops. ACS Applied Materials & Interfaces, 2022, 14, 3374-3384.	4.0	3
2	Electrochemical assessments of droplet contents in microfluidic channels. Application to the titration of heterogeneous droplets. Analytica Chimica Acta, 2021, 1155, 338344.	2.6	4
3	Quantitative electrolysis of droplet contents in microfluidic channels. Concept and experimental validation. Electrochimica Acta, 2021, 393, 139017.	2.6	1
4	Electrochemical Generation of Steady-State Linear Concentration Gradients within Microfluidic Channels Perpendicular to the Flow Field. Analytical Chemistry, 2020, 92, 7699-7707.	3.2	3
5	Optimization of electrochemical time of flight measurements for precise determinations of diffusion coefficients over a wide range in various media. Electrochimica Acta, 2020, 345, 136113.	2.6	2
6	Reversible microfluidics device for precious metal electrodeposition and depletion yield studies. Electrochimica Acta, 2020, 352, 136474.	2.6	1
7	Electrochemical Detection of Droplets in Microfluidic Devices: Simultaneous Determination of Velocity, Size and Content. Electroanalysis, 2019, 31, 2103-2111.	1.5	10
8	Electrochemical Generation and Detection of Transient Concentration Gradients in Microfluidic Channels. Theoretical and Experimental Investigations. Frontiers in Chemistry, 2019, 7, 704.	1.8	6
9	Development of a flow microsensor for selective detection of nitric oxide in the presence of hydrogen peroxide. Electrochimica Acta, 2018, 286, 365-373.	2.6	21
10	Downstream Simultaneous Electrochemical Detection of Primary Reactive Oxygen and Nitrogen Species Released by Cell Populations in an Integrated Microfluidic Device. Analytical Chemistry, 2018, 90, 9386-9394.	3.2	31
11	Electrochemical detection of droplet content in microfluidic devices: Evidence of internal recirculating convection within droplets. Electrochemistry Communications, 2017, 80, 55-59.	2.3	11
12	Electrografting of aryl diazonium on thin layer platinum microbands: Towards customized surface functionalization within microsystems. Electrochemistry Communications, 2016, 70, 78-81.	2.3	3
13	Multiâ€chambers Microsystem for Simultaneous and Direct Electrochemical Detection of Reactive Oxygen and Nitrogen Species Released by Cell Populations. Electroanalysis, 2016, 28, 1865-1872.	1.5	17
14	Understanding Mass Transport at Channel Microband Electrodes: Influence of Confined Space under Stagnant Conditions. Electrochimica Acta, 2016, 202, 122-130.	2.6	7
15	Interactions between Human Antibodies and Synthetic Conformational Peptide Epitopes: Innovative Approach for Electrochemical Detection of Biomarkers of Multiple Sclerosis at Platinum Electrodes. Electrochimica Acta, 2015, 176, 1239-1247.	2.6	14
16	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. Electrochimica Acta, 2014, 144, 111-118.	2.6	37
17	Direct Electroanalytical Method for Alternative Assessment of Global Antioxidant Capacity Using Microchannel Electrodes. Analytical Chemistry, 2013, 85, 9057-9063.	3.2	32
18	Highly Sensitive Platinumâ€Black Coated Platinum Electrodes for Electrochemical Detection of Hydrogen Peroxide and Nitrite in Microchannel. Electroanalysis, 2013, 25, 895-902.	1.5	71

#	Article	IF	Citations
19	Mass Transport at Infinite Regular Arrays of Microband Electrodes Submitted to Natural Convection: Theory and Experiments. Analytical Chemistry, 2013, 85, 12062-12069.	3.2	14
20	Comparison of three different configurations of dual ultramicroelectrodes for the decomposition of S-Nitroso-L-glutathione and the direct detection of nitric oxide. Mikrochimica Acta, 2012, 179, 337-343.	2.5	2
21	Mass Transport at Microband Electrodes: Transient, Quasiâ€Steadyâ€State, and Convective Regimes. ChemPhysChem, 2012, 13, 1562-1568.	1.0	30
22	Channel Microband Chronoamperometry: From Transient to Steady-State Regimes. Analytical Chemistry, 2011, 83, 4170-4177.	3.2	19
23	Theory and experiments of microelectrodes performing as concentration probes within microfluidic channels with high temporal resolution. Electrochemistry Communications, 2011, 13, 1459-1461.	2.3	14
24	Anodic abatement of organic pollutants in water in micro reactors. Journal of Electroanalytical Chemistry, 2010, 638, 293-296.	1.9	56
25	Difference between Ultramicroelectrodes and Microelectrodes: Influence of Natural Convection. Analytical Chemistry, 2010, 82, 6933-6939.	3.2	81
26	Theory and Experiments of Transport at Channel Microband Electrodes Under Laminar Flow. 3. Electrochemical Detection at Electrode Arrays under Steady State. Analytical Chemistry, 2010, 82, 2434-2440.	3.2	27
27	Cyclic voltammetry at microelectrodes. Influence of natural convection on diffusion layers as characterized by in situ mapping of concentration profiles. Electrochemistry Communications, 2009, 11, 1269-1272.	2.3	47
28	Theory and Experiments of Transport at Channel Microband Electrodes under Laminar Flows. 2. Electrochemical Regimes at Double Microband Assemblies under Steady State. Analytical Chemistry, 2008, 80, 9483-9490.	3.2	83
29	General Concept of High-Performance Amperometric Detector for Microfluidic (Bio)Analytical Chips. Analytical Chemistry, 2008, 80, 4976-4985.	3.2	37
30	Microelectrode Arrays. , 2007, , 391-428.		13
31	Theory and Experiments of Transport at Channel Microband Electrodes under Laminar Flows. 1. Steady-State Regimes at a Single Electrode. Analytical Chemistry, 2007, 79, 8502-8510.	3.2	84
32	Confocal Microscopy Imaging of Electrochemiluminescence at Double Band Microelectrode Assemblies: Numerical Solution of the Inverse Optical Problem. ChemPhysChem, 2007, 8, 1664-1676.	1.0	7
33	Alteration of diffusional transport by migration and natural convection. Theoretical and direct experimental evidences upon monitoring steady-state concentration profiles at planar electrodes. Journal of Electroanalytical Chemistry, 2007, 601, 17-28.	1.9	33
34	Electrochemical oxidation of half-open ruthenocene compounds. Role of acyclic ligands on acetonitrile coordination. Journal of Electroanalytical Chemistry, 2007, 611, 96-106.	1.9	1
35	Electrochemical time-of-flight responses at double-band generator-collector devices under pulsed conditions. Journal of Electroanalytical Chemistry, 2006, 593, 194-202.	1.9	45
36	Electrocarboxylation of Benzyl Halides through Redox Catalysis on the Preparative Scale. Chemistry - A European Journal, 2006, 12, 7433-7447.	1.7	19

#	Article	IF	Citations
37	Ferrocene-Mediated Proton-Coupled Electron Transfer in a Series of Ferrocifen-Type Breast-Cancer Drug Candidates. Angewandte Chemie - International Edition, 2006, 45, 285-290.	7.2	373
38	Mapping Electrochemiluminescence as Generated at Double-Band Microelectrodes by Confocal Microscopy under Steady State. ChemPhysChem, 2006, 7, 1322-1327.	1.0	46
39	Mesure directe in situ de la vitesse dâ€™un Ã©coulement microfluidique par couplage Ã©lectrochimique entre deux microbandes parallÃ¨les. Houille Blanche, 2006, 92, 60-64.	0.3	5
40	Imaging Concentration Profiles of Redox-Active Species with Nanometric Amperometric Probes: Effect of Natural Convection on Transport at Microdisk Electrodes. Angewandte Chemie - International Edition, 2004, 43, 1431-1435.	7.2	91
41	Using electrochemical coupling between parallel microbands for in situ monitoring of flow rates in microfluidic channels. Journal of Electroanalytical Chemistry, 2004, 573, 333-343.	1.9	64
42	First direct experimental evidence of migration contributions through monitoring of concentration profiles at low supporting electrolyte concentration. Electrochemistry Communications, 2004, 6, 887-891.	2.3	18
43	Remote Fluorescence Imaging of Dynamic Concentration Profiles with Micrometer Resolution Using a Coherent Optical Fiber Bundle. Analytical Chemistry, 2004, 76, 7202-7210.	3.2	35
44	Effects of chemical environment on diffusivities within thin NafionÂ® films as monitored from chronoamperometric responses of generatorâ€“collector double microband assemblies. Journal of Electroanalytical Chemistry, 2003, 547, 151-161.	1.9	12
45	Spatially Resolved Electrochemiluminescence on an Array of Electrode Tips. Analytical Chemistry, 2003, 75, 4382-4388.	3.2	50
46	Optical and electrochemical properties of soluble donor-Ï€-donor compounds as potential molecular wires and electrochemically-triggered optical switches. Physical Chemistry Chemical Physics, 2003, 5, 4576-4582.	1.3	12
47	Diffusional Cross-Talk between Paired Microband Electrodes Operating within a Thin Film:Â Theory for Redox Couples with Unequal Diffusion Coefficients. Journal of Physical Chemistry B, 2002, 106, 11565-11571.	1.2	24
48	Mechanistic investigation of the anodic oxidation of 3,4,5-trimethoxytoluene in acetonitrile. Journal of Electroanalytical Chemistry, 2002, 537, 39-46.	1.9	15
49	Diffusion at Double Microband Electrodes Operated within a Thin Film Coating. Theory and Experimental Illustration. Journal of Physical Chemistry B, 2001, 105, 8694-8703.	1.2	41
50	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. Chemistry - A European Journal, 2001, 7, 2933-2939.	1.7	42
51	Mapping Concentration Profiles within the Diffusion Layer of an Electrode: Application to Redox Catalysis. Chemistry - A European Journal, 2001, 7, 2940-2956.	1.7	8
52	Monitoring Concentration Profiles In Situ with an Ultramicroelectrode Probe. Electroanalysis, 2001, 13, 646-652.	1.5	35
53	Tetraarylporphyrin synthesis by electrochemical oxidation of porphyrinogens. Electrochimica Acta, 2001, 46, 1899-1903.	2.6	8
54	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. Journal of Electroanalytical Chemistry, 2001, 500, 62-70.	1.9	140

#	Article	IF	Citations
55	Micrometrically Controlled Surface Modification of TeflonÂ® by Redox Catalysis: Electrochemical Coupling between TeflonÂ® and a Gold Band Ultramicroelectrode. Chemistry - A European Journal, 2000, 6, 820-835.	1.7	20
56	Cyclic voltammetric studies of copper complexes catalyzing atom transfer radical polymerization. Macromolecular Chemistry and Physics, 2000, 201, 1625-1631.	1.1	224
57	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. Journal of Electroanalytical Chemistry, 2000, 484, 1-17.	1.9	60
58	Mapping concentration profiles within the diffusion layer of an electrodePart I. Confocal resonance Raman microscopy. Electrochemistry Communications, 2000, 2, 235-239.	2.3	45
59	Mapping concentration profiles within the diffusion layer of an electrodePart II. Potentiometric measurements with an ultramicroelectrode. Electrochemistry Communications, 2000, 2, 248-253.	2.3	41
60	Mapping concentration profiles within the diffusion layer of an electrode. Electrochemistry Communications, 2000, 2, 353-358.	2.3	53
61	Steady state voltammetry at low electrolyte/reactant concentration ratios: what it means and what it does not mean. Journal of Electroanalytical Chemistry, 1999, 463, 45-52.	1.9	24
62	Artificial Neurons with Logical Properties Based on Paired-Band Microelectrode Assemblies. Chemistry - A European Journal, 1999, 5, 456-465.	1.7	34
63	About potential measurements in steady state voltammetry at low electrolyte/analyte concentration ratios. Journal of Electroanalytical Chemistry, 1998, 443, 137-148.	1.9	33
64	Potential measurements in steady state voltammetry at low electrolyte/analyte concentration ratios. Role of convection on ohmic drop: a simplified model. Journal of Electroanalytical Chemistry, 1998, 446, 91-105.	1.9	25
65	Mimicking neuronal synaptic behavior: Processing of information with â€˜ANDâ€™ or â€˜ORâ€™ Boolean logic via paired-band microelectrode assemblies. Comptes Rendus De L'Academie Des Sciences - Series IIc: Chemistry, 1998, 1, 509-515.	0.1	7
66	Dichloro(1,4,8,11-tetraazacyclotetradecane)manganese(III) chloride: cisâ€“trans isomerisation evidenced by infrared and electrochemical studies. Journal of the Chemical Society Dalton Transactions, 1998, , 2233-2240.	1.1	18
67	Relation Between Physical Properties and Deposition Conditions of Electrodeposited CuInSe2. Journal of the Electrochemical Society, 1996, 143, 2173-2180.	1.3	15
68	Electrodeposition and Characterization of CuInSe2 Thin Films. Journal of the Electrochemical Society, 1995, 142, 2996-3001.	1.3	69
69	Solar cells with improved efficiency based on electrodeposited copper indium diselenide thin films. Advanced Materials, 1994, 6, 379-381.	11.1	39
70	Formation of copper indium diselenide by electrodeposition. Journal of Electroanalytical Chemistry, 1994, 374, 81-88.	1.9	76
71	Electrodeposition of copper-selenium binaries in a citric acid medium. Electrochimica Acta, 1993, 38, 2387-2394.	2.6	48