

# Laurent Thouin

## List of Publications by Year in descending order

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71  
papers

2,748  
citations

147801

31  
h-index

182427

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.  | 8.0 | 3         |
| 2  | Electrochemical assessments of droplet contents in microfluidic channels. Application to the titration of heterogeneous droplets. Analytica Chimica Acta, 2021, 1155, 3383-44.  | 5.4 | 4         |
| 3  | Quantitative electrolysis of droplet contents in microfluidic channels. Concept and experimental validation. Electrochimica Acta, 2021, 393, 139017.  | 5.2 | 1         |
| 4  | Electrochemical Generation of Steady-State Linear Concentration Gradients within Microfluidic Channels Perpendicular to the Flow Field. Analytical Chemistry, 2020, 92, 7699-7707.  | 6.5 | 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.  | 5.2 | 2         |
| 6  | Reversible microfluidics device for precious metal electrodeposition and depletion yield studies. Electrochimica Acta, 2020, 352, 136474.   | 5.2 | 1         |
| 7  | Electrochemical Detection of Droplets in Microfluidic Devices: Simultaneous Determination of Velocity, Size and Content. Electroanalysis, 2019, 31, 2103-2111.  | 2.9 | 10        |
| 8  | Electrochemical Generation and Detection of Transient Concentration Gradients in Microfluidic Channels. Theoretical and Experimental Investigations. Frontiers in Chemistry, 2019, 7, 704.  | 3.6 | 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.  | 5.2 | 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.   | 6.5 | 31        |
| 11 | Electrochemical detection of droplet content in microfluidic devices: Evidence of internal recirculating convection within droplets. Electrochemistry Communications, 2017, 80, 55-59.  | 4.7 | 11        |
| 12 | Electrografting of aryl diazonium on thin layer platinum microbands: Towards customized surface functionalization within microsystems. Electrochemistry Communications, 2016, 70, 78-81.  | 4.7 | 3         |
| 13 | Multi-chambers Microsystem for Simultaneous and Direct Electrochemical Detection of Reactive Oxygen and Nitrogen Species Released by Cell Populations. Electroanalysis, 2016, 28, 1865-1872.  | 2.9 | 17        |
| 14 | Understanding Mass Transport at Channel Microband Electrodes: Influence of Confined Space under Stagnant Conditions. Electrochimica Acta, 2016, 202, 122-130.   | 5.2 | 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.             | 5.2 | 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. | 5.2 | 37        |
| 17 | Direct Electroanalytical Method for Alternative Assessment of Global Antioxidant Capacity Using Microchannel Electrodes. Analytical Chemistry, 2013, 85, 9057-9063.   | 6.5 | 32        |
| 18 | Highly Sensitive Platinum-Black Coated Platinum Electrodes for Electrochemical Detection of Hydrogen Peroxide and Nitrite in Microchannel. Electroanalysis, 2013, 25, 895-902.  | 2.9 | 71        |

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|----|--|-----|-----------|
| 19 | 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        |
| 20 | 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         |
| 21 | Mass Transport at Microband Electrodes: Transient, Quasi- $\infty$ Steady-State, and Convective Regimes. <i>ChemPhysChem</i> , 2012, 13, 1562-1568.  | 2.1 | 30        |
| 22 | Channel Microband Chronoamperometry: From Transient to Steady-State Regimes. <i>Analytical Chemistry</i> , 2011, 83, 4170-4177.  | 6.5 | 19        |
| 23 | 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        |
| 24 | Anodic abatement of organic pollutants in water in micro reactors. <i>Journal of Electroanalytical Chemistry</i> , 2010, 638, 293-296.   | 3.8 | 56        |
| 25 | Difference between Ultramicroelectrodes and Microelectrodes: Influence of Natural Convection. <i>Analytical Chemistry</i> , 2010, 82, 6933-6939.   | 6.5 | 81        |
| 26 | 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        |
| 27 | 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        |
| 28 | 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        |
| 29 | General Concept of High-Performance Amperometric Detector for Microfluidic (Bio)Analytical Chips. <i>Analytical Chemistry</i> , 2008, 80, 4976-4985.   | 6.5 | 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. <i>Analytical Chemistry</i> , 2007, 79, 8502-8510.   | 6.5 | 84        |
| 32 | 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         |
| 33 | 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        |
| 34 | 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         |
| 35 | 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        |
| 36 | Electrocarboxylation of Benzyl Halides through Redox Catalysis on the Preparative Scale. <i>Chemistry - A European Journal</i> , 2006, 12, 7433-7447.  | 3.3 | 19        |

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|----|---|------|-----------|
| 37 | 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       |
| 38 | Mapping Electrochemiluminescence as Generated at Double-Band Microelectrodes by Confocal Microscopy under Steady State. <i>ChemPhysChem</i> , 2006, 7, 1322-1327.   | 2.1  | 46        |
| 39 | Mesure directe in situ de la vitesse d'écoulement microfluidique par couplage électrochimique entre deux microbandes parallèles. <i>Houille Blanche</i> , 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. <i>Angewandte Chemie - International Edition</i> , 2004, 43, 1431-1435.                        | 13.8 | 91        |
| 41 | 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        |
| 42 | 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        |
| 43 | 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        |
| 44 | 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        |
| 45 | Spatially Resolved Electrochemiluminescence on an Array of Electrode Tips. <i>Analytical Chemistry</i> , 2003, 75, 4382-4388.   | 6.5  | 50        |
| 46 | 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        |
| 47 | 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        |
| 48 | 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        |
| 49 | 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        |
| 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. <i>Chemistry - A European Journal</i> , 2001, 7, 2933-2939. | 3.3  | 42        |
| 51 | 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         |
| 52 | Monitoring Concentration Profiles In Situ with an Ultramicroelectrode Probe. <i>Electroanalysis</i> , 2001, 13, 646-652.  | 2.9  | 35        |
| 53 | Tetraarylporphyrin synthesis by electrochemical oxidation of porphyrinogens. <i>Electrochimica Acta</i> , 2001, 46, 1899-1903.  | 5.2  | 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. <i>Journal of Electroanalytical Chemistry</i> , 2001, 500, 62-70.                          | 3.8  | 140       |

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|----|---|------|-----------|
| 55 | Micrometrically Controlled Surface Modification of Teflon <sup>®</sup> by Redox Catalysis: Electrochemical Coupling between Teflon <sup>®</sup> and a Gold Band Ultramicroelectrode. Chemistry - A European Journal, 2000, 6, 820-835.  | 3.3  | 20        |
| 56 | Cyclic voltammetric studies of copper complexes catalyzing atom transfer radical polymerization. Macromolecular Chemistry and Physics, 2000, 201, 1625-1631.  | 2.2  | 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 comproportionation reaction. Journal of Electroanalytical Chemistry, 2000, 484, 1-17. | 3.8  | 60        |
| 58 | Mapping concentration profiles within the diffusion layer of an electrodePart I. Confocal resonance Raman microscopy. Electrochemistry Communications, 2000, 2, 235-239.  | 4.7  | 45        |
| 59 | Mapping concentration profiles within the diffusion layer of an electrodePart II. Potentiometric measurements with an ultramicroelectrode. Electrochemistry Communications, 2000, 2, 248-253.   | 4.7  | 41        |
| 60 | Mapping concentration profiles within the diffusion layer of an electrode. Electrochemistry Communications, 2000, 2, 353-358.   | 4.7  | 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.   | 3.8  | 24        |
| 62 | Artificial Neurons with Logical Properties Based on Paired-Band Microelectrode Assemblies. Chemistry - A European Journal, 1999, 5, 456-465.  | 3.3  | 34        |
| 63 | About potential measurements in steady state voltammetry at low electrolyte/analyte concentration ratios. Journal of Electroanalytical Chemistry, 1998, 443, 137-148.   | 3.8  | 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.  | 3.8  | 25        |
| 65 | Mimicking neuronal synaptic behavior: Processing of information with $\hat{\sim}$ AND $\hat{\sim}$ or $\hat{\sim}$ OR $\hat{\sim}$ 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: cis $\hat{\sim}$ 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 CuInSe <sub>2</sub> . Journal of the Electrochemical Society, 1996, 143, 2173-2180.  | 2.9  | 15        |
| 68 | Electrodeposition and Characterization of CuInSe <sub>2</sub> Thin Films. Journal of the Electrochemical Society, 1995, 142, 2996-3001.   | 2.9  | 69        |
| 69 | Solar cells with improved efficiency based on electrodeposited copper indium diselenide thin films. Advanced Materials, 1994, 6, 379-381.   | 21.0 | 39        |
| 70 | Formation of copper indium diselenide by electrodeposition. Journal of Electroanalytical Chemistry, 1994, 374, 81-88.   | 3.8  | 76        |
| 71 | Electrodeposition of copper-selenium binaries in a citric acid medium. Electrochimica Acta, 1993, 38, 2387-2394.  | 5.2  | 48        |