

# Dominic Rochefort

## List of Publications by Year in descending order

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71  
papers

2,272  
citations

236925

25  
h-index

223800

46  
g-index

72  
all docs

72  
docs citations

72  
times ranked

3551  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | XPS investigations of thermally prepared RuO <sub>2</sub> electrodes in reductive conditions. <i>Electrochimica Acta</i> , 2003, 48, 4245-4252.  | 5.2  | 175       |
| 2  | Targetting redox polymers as mediators for laccase oxygen reduction in a membrane-less biofuel cell. <i>Electrochemistry Communications</i> , 2004, 6, 237-241.  | 4.7  | 150       |
| 3  | Pseudocapacitive behaviour of RuO <sub>2</sub> in a proton exchange ionic liquid. <i>Electrochemistry Communications</i> , 2006, 8, 1539-1543.   | 4.7  | 119       |
| 4  | Electron transfer mediator systems for bleaching of paper pulp. <i>Green Chemistry</i> , 2004, 6, 14.  | 9.0  | 114       |
| 5  | Development of prototypes of bioactive packaging materials based on immobilized bacteriophages for control of growth of bacterial pathogens in foods. <i>International Journal of Food Microbiology</i> , 2016, 217, 49-58.                | 4.7  | 108       |
| 6  | Air-Stable, Self-Bleaching Electrochromic Device Based on Viologen- and Ferrocene-Containing Triflimide Redox Ionic Liquids. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 28726-28736.   | 8.0  | 97        |
| 7  | An Artificial Lithium Protective Layer that Enables the Use of Acetonitrile-Based Electrolytes in Lithium Metal Batteries. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 5072-5075.   | 13.8 | 97        |
| 8  | Redox-active electrolyte supercapacitors using electroactive ionic liquids. <i>Electrochemistry Communications</i> , 2016, 66, 42-45.  | 4.7  | 85        |
| 9  | Surface composition of ordered intermetallic compounds PtBi and PtPb. <i>Surface Science</i> , 2006, 600, 2670-2680.   | 1.9  | 78        |
| 10 | High throughput screening of electrocatalysts for fuel cell applications. <i>Review of Scientific Instruments</i> , 2006, 77, 054104.  | 1.3  | 59        |
| 11 | Pyridinium-based protic ionic liquids as electrolytes for RuO <sub>2</sub> electrochemical capacitors. <i>Journal of Power Sources</i> , 2010, 195, 5114-5121.   | 7.8  | 59        |
| 12 | Activity, conformation and thermal stability of laccase and glucose oxidase in poly(ethyleneimine) microcapsules for immobilization in paper. <i>Process Biochemistry</i> , 2011, 46, 993-1000.  | 3.7  | 57        |
| 13 | Influence of the Conductivity and Viscosity of Protic Ionic Liquids Electrolytes on the Pseudocapacitance of RuO <sub>2</sub> Electrodes. <i>Journal of Physical Chemistry C</i> , 2009, 113, 1632-1639.                                   | 3.1  | 55        |
| 14 | Characterisation and applications of microcapsules obtained by interfacial polycondensation. <i>Journal of Microencapsulation</i> , 2012, 29, 636-649.   | 2.8  | 53        |
| 15 | Electrochemical characterisation of a lithium-ion battery electrolyte based on mixtures of carbonates with a ferrocene-functionalised imidazolium electroactive ionic liquid. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 7713. | 2.8  | 53        |
| 16 | Cross-Linked Polyacrylonitrile-Based Elastomer Used as Gel Polymer Electrolyte in Li-Ion Battery. <i>ACS Applied Energy Materials</i> , 2020, 3, 1099-1110.  | 5.1  | 49        |
| 17 | Physical immobilization of laccase on an electrode by means of poly(ethyleneimine) microcapsules. <i>Journal of Electroanalytical Chemistry</i> , 2008, 617, 53-63.  | 3.8  | 45        |
| 18 | Printing of Polymer Microcapsules for Enzyme Immobilization on Paper Substrate. <i>Biomacromolecules</i> , 2011, 12, 2008-2015.  | 5.4  | 43        |

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|----|--|-----|-----------|
| 19 | Electrolyte-Gated WO <sub>3</sub> Transistors: Electrochemistry, Structure, and Device Performance. <i>Journal of Physical Chemistry C</i> , 2015, 119, 21732-21738.   | 3.1 | 42        |
| 20 | Oxidation of lignin model compounds by organic and transition metal-based electron transfer mediators. <i>Chemical Communications</i> , 2002, , 1182-1183.   | 4.1 | 39        |
| 21 | Electrode passivation by reaction products of the electrochemical and enzymatic oxidation of p-phenylenediamine. <i>Electrochimica Acta</i> , 2008, 53, 5272-5279.   | 5.2 | 38        |
| 22 | Confocal microscopy study of polymer microcapsules for enzyme immobilisation in paper substrates. <i>Journal of Applied Polymer Science</i> , 2009, 111, 1-10.   | 2.6 | 34        |
| 23 | Electrochemical functionalization of glassy carbon electrode by reduction of diazonium cations in protic ionic liquid. <i>Electrochimica Acta</i> , 2013, 106, 378-385.  | 5.2 | 31        |
| 24 | Designs of Experiments for Beginners – A Quick Start Guide for Application to Electrode Formulation. <i>Batteries</i> , 2019, 5, 72.   | 4.5 | 30        |
| 25 | A high-throughput search for direct methanol fuel cell anode electrocatalysts of type Pt <sub>x</sub> Bi <sub>y</sub> Pb <sub>z</sub> . <i>Applied Surface Science</i> , 2007, 254, 653-661.                                     | 6.1 | 26        |
| 26 | Comparison of emulsion and vibration nozzle methods for microencapsulation of laccase and glucose oxidase by interfacial reticulation of poly(ethyleneimine). <i>Journal of Microencapsulation</i> , 2010, 27, 703-713.          | 2.8 | 25        |
| 27 | Mesomorphic and ion conducting properties of dialkyl(1,4-phenylene)diimidazolium salts. <i>Soft Matter</i> , 2012, 8, 10914.   | 2.7 | 24        |
| 28 | Activity, stability and inhibition of a bioactive paper prepared by large-scale coating of laccase microcapsules. <i>Chemical Engineering Science</i> , 2011, 66, 5313-5320.   | 3.8 | 23        |
| 29 | Electrochemical and Spectroelectrochemical Evidence of Redox Transitions Involving Protons in Thin MnO <sub>2</sub> Electrodes in Protic Ionic Liquids. <i>Journal of Physical Chemistry C</i> , 2013, 117, 20397-20405.         | 3.1 | 23        |
| 30 | Synthesis and characterization of an electroactive ionic liquid based on the ferrocenylsulfonyl(trifluoromethylsulfonyl)imide anion. <i>Electrochimica Acta</i> , 2015, 162, 36-44.  | 5.2 | 23        |
| 31 | Exploiting Materials to Their Full Potential, a Li-Ion Battery Electrode Formulation Optimization Study. <i>ACS Applied Energy Materials</i> , 2020, 3, 2935-2948.   | 5.1 | 23        |
| 32 | Electrochemistry of ruthenium dioxide composite electrodes in diethylmethylammonium-triflate protic ionic liquid and its mixtures with acetonitrile. <i>Electrochimica Acta</i> , 2014, 147, 96-103.                             | 5.2 | 21        |
| 33 | Polyacrylonitrile-based rubber (HNBR) as a new potential elastomeric binder for lithium-ion battery electrodes. <i>Journal of Power Sources</i> , 2019, 440, 227111.   | 7.8 | 20        |
| 34 | Conductivity and Electrochemistry of Ferrocenyl-Imidazolium Redox Ionic Liquids with Different Alkyl Chain Lengths. <i>Journal of the Electrochemical Society</i> , 2014, 161, H161-H165.  | 2.9 | 19        |
| 35 | ARC Study of LiFePO <sub>4</sub> with Different Morphologies Prepared via Three Synthetic Routes. <i>Journal of the Electrochemical Society</i> , 2016, 163, A1311-A1316.  | 2.9 | 19        |
| 36 | Electrochemical and Transport Properties of Ions in Mixtures of Electroactive Ionic Liquid and Propylene Carbonate with a Lithium Salt for Lithium-Ion Batteries. <i>Journal of Physical Chemistry C</i> , 2016, 120, 5315-5325. | 3.1 | 19        |

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|----|--|------|-----------|
| 37 | Solid-state NMR and electrochemical dilatometry study of charge storage in supercapacitor with redox ionic liquid electrolyte. <i>Energy Storage Materials</i> , 2019, 20, 80-88.  | 18.0 | 19        |
| 38 | Development of an enzymatic microreactor based on microencapsulated laccase with off-line capillary electrophoresis for measurement of oxidation reactions. <i>Journal of Chromatography A</i> , 2009, 1216, 8270-8276.                    | 3.7  | 18        |
| 39 | Electroactive imidazolium salts based on 1,4-dimethoxybenzene redox groups: synthesis and electrochemical characterisation. <i>RSC Advances</i> , 2013, 3, 12035.  | 3.6  | 18        |
| 40 | Enhancing thermoelectrochemical properties by tethering ferrocene to the anion or cation of ionic liquids: altered thermodynamics and solubility. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 24255-24263.                      | 2.8  | 17        |
| 41 | Melt-processed electrode for lithium ion battery. <i>Journal of Power Sources</i> , 2020, 454, 227884.   | 7.8  | 17        |
| 42 | Electrochemical Oxidation of Transition Metal-Based Mediators for Pulp Delignification. <i>Journal of the Electrochemical Society</i> , 2002, 149, D15.  | 2.9  | 16        |
| 43 | Redox Shuttles for Lithium-Ion Batteries at Concentrations up to 1 M Using an Electroactive Ionic Liquid Based on 2,5-di- <i>tert</i> -butyl-1,4-dimethoxybenzene. <i>Journal of the Electrochemical Society</i> , 2015, 162, A1432-A1438. | 2.9  | 16        |
| 44 | Electrochemical and physicochemical properties of redox ionic liquids using electroactive anions: influence of alkylimidazolium chain length. <i>Electrochimica Acta</i> , 2016, 200, 283-289.   | 5.2  | 15        |
| 45 | An Artificial Lithium Protective Layer that Enables the Use of Acetonitrile-Based Electrolytes in Lithium Metal Batteries. <i>Angewandte Chemie</i> , 2018, 130, 5166-5169.  | 2.0  | 15        |
| 46 | Crosslinker free thermally induced crosslinking of hydrogenated nitrile butadiene rubber. <i>Journal of Polymer Science Part A</i> , 2018, 56, 1825-1833.  | 2.3  | 15        |
| 47 | Origin and effect of impurities in protic ionic liquids based on 2-methylpyridine and trifluoroacetic acid for applications in electrochemistry. <i>Electrochimica Acta</i> , 2009, 54, 7422-7428.   | 5.2  | 14        |
| 48 | Hydrogen absorption by a palladium electrode from a protic ionic liquid at temperatures exceeding 100°C. <i>Electrochemistry Communications</i> , 2013, 34, 102-104.   | 4.7  | 14        |
| 49 | Enabling new electrochemical methods with redox-active ionic liquids. <i>Current Opinion in Electrochemistry</i> , 2019, 15, 125-132.  | 4.8  | 14        |
| 50 | Fast and effective paper based sensor for self-diagnosis of bacterial vaginosis. <i>Analytica Chimica Acta</i> , 2013, 800, 87-94.   | 5.4  | 12        |
| 51 | Electroactive ionic liquids based on 2,5-ditert-butyl-1,4-dimethoxybenzene and triflimide anion as redox shuttle for Li4Ti5O12/LiFePO4 lithium-ion batteries. <i>Journal of Power Sources</i> , 2017, 372, 212-220.                        | 7.8  | 12        |
| 52 | Modification to the composition of nanocrystalline RuO2 through reactive milling under O2. <i>Journal of Alloys and Compounds</i> , 2005, 400, 257-264.  | 5.5  | 11        |
| 53 | Thermal Stability of High Voltage Li1-xMn1.5Ni0.5O4 Cathode Material Synthesized via a Sol-Gel Method. <i>Journal of the Electrochemical Society</i> , 2016, 163, A947-A952.   | 2.9  | 7         |
| 54 | Interfacial Forces across Ionic Liquid Solutions: Effects of Ion Concentration and Water Domains. <i>Langmuir</i> , 2019, 35, 15585-15591.   | 3.5  | 7         |

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|----|---|-----|-----------|
| 55 | On the Relevance of Reporting Water Content in Highly Concentrated Electrolytes: The LiTFSI-Acetonitrile Case. Journal of the Electrochemical Society, 2020, 167, 120536.                           | 2.9 | 7         |
| 56 | Synthesis, Characterization of Nanostructured Rhodium Films and their Electrochemical Behavior towards Carbon Monoxide Oxidation. Electrocatalysis, 2011, 2, 114-122.                               | 3.0 | 6         |
| 57 | Electron transfer properties of a redox polyelectrolyte based on ferrocenated imidazolium. Electrochimica Acta, 2019, 305, 155-163.   | 5.2 | 5         |
| 58 | Application of a Commercially-Available Fluorine-Free Thermoplastic Elastomer as a Binder for High-Power Li-Ion Battery Electrodes. Journal of the Electrochemical Society, 2019, 166, A1140-A1146. | 2.9 | 5         |
| 59 | Effect of Graphite on the Electrochemical Properties of Ballmilled RuO <sub>2</sub> . Journal of the Electrochemical Society, 2004, 151, A1141.   | 2.9 | 4         |
| 60 | Electrochemistry and transport properties of electrolytes modified with ferrocene redox-active ionic liquid additives. Canadian Journal of Chemistry, 2020, 98, 554-563.                            | 1.1 | 4         |
| 61 | Surface modification of co-evaporated thin films upon oxygen and air exposure. Surface Science, 2005, 595, 73-86.   | 1.9 | 3         |
| 62 | A comparative study on the influence of the polymeric host for the operation of all-solid-state batteries at different temperatures. Journal of Power Sources, 2022, 535, 231382.                   | 7.8 | 2         |
| 63 | Carbon Monoxide Oxidation on Nanostructured Pt Thin Films Synthesized by Pulsed Laser Deposition: Insights into the Morphology Effects. Laser Chemistry, 2010, 2010, 1-7.                           | 0.5 | 1         |
| 64 | Diphenoquinones Redux. Journal of Organic Chemistry, 2022, 87, 7673-7695.   | 3.2 | 1         |
| 65 | Influence of the Formulation on the Microstructure and Thus Performance of Li-Ion Batteries. ECS Meeting Abstracts, 2019, , .   | 0.0 | 0         |
| 66 | A Solvent-Free Approach to Lithium-Ion Battery Electrodes Using Melt-Processable Elastomeric Binders. ECS Meeting Abstracts, 2019, , .  | 0.0 | 0         |
| 67 | (Invited) Dry Process for the Preparation of Porous Composite Electrodes for Battery Application. ECS Meeting Abstracts, 2019, , .  | 0.0 | 0         |
| 68 | Melt-Processing of Electrodes for Lithium-Ion Batteries: A New Solvent-Free Approach. ECS Meeting Abstracts, 2019, , .  | 0.0 | 0         |
| 69 | Melt-Process for the Preparation of Porous Composite Electrodes for Battery Application. ECS Meeting Abstracts, 2019, , .   | 0.0 | 0         |
| 70 | Solid-State NMR and Electrochemical Dilatometry Study of Charge Storage in Supercapacitor with Redox Ionic Liquid Electrolyte. ECS Meeting Abstracts, 2020, MA2020-01, 6-6.                         | 0.0 | 0         |
| 71 | Impact of Water on the Properties of Litfsi-Acetonitrile Superconcentrated Electrolytes. ECS Meeting Abstracts, 2020, MA2020-01, 556-556.   | 0.0 | 0         |