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Professor Janine Mauzeroll

Correspondence language: English

Sex: Female

Contact Information

The primary information is denoted by (*)

Address

Courier (*)

Department of Chemistry Otto Maass Chemistry Building room 21 McGill University 801 Sherbrooke Street West Montréal Quebec H3A 0B8 Canada

Telephone

Work (*) 1-514-398-3898

Email

Work (*) janine.mauzeroll@mcgill.ca





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Professor Janine Mauzeroll

Language Skills

Language	Read	Write	Speak	Understand	Peer Review
Danish	Yes	No	Yes	Yes	No
English	Yes	Yes	Yes	Yes	Yes
French	Yes	Yes	Yes	Yes	Yes
Spanish; Castilian	Yes	Yes	Yes	Yes	Yes

Degrees

- 2005/5 Post-doctorate, Chemistry, Université de Paris VII (Denis Diderot)

Supervisors: Jean-Michel Savéant et Damien Marchal, 2004/6 - 2005/6

- 2004/5 Doctorate, Chemistry, University of Texas at Austin

Supervisors: Allen J. Bard, 1999/9 - 2004/5

- 1999/6 Bachelor's, Chemistry, McGill University

Supervisors: R. Bruce Lennox, 1998/5 - 1998/8

Recognitions

2015/1 Fred Beamish Award

Canadian Society for Chemistry Analytical Chemistry Division

Prize / Award

This Award is presented to an individual who demonstrates innovation in research in the field of analytical chemistry, where the research is anticipated to have significant potential

for practical applications.

User Profile

Research Specialization Keywords: Cells, Electrochemistry, Enzymes, Ion Channels, Nanoelectrodes, Numerical Simulation, Oxidatif Stress, SECM, Self-Assembled Monolayers, Ultramicroelectrodes

Employment

2012/1 Associate Professor

Chemistry, Science, McGill University

Full-time, Associate Professor

Tenure Status: Tenure

2006/7 - 2011/12 Associate Professor

Chemistry Department / Faculty of Science, Université du Québec à Montréal

Full-time, Associate Professor

Tenure Status: Tenure

2006/9 - 2011/4 Adjunct Professor

Chemistry and Biochemistry, Concordia University

Full-time

Tenure Status: Non Tenure Track

2005/6 - 2006/7 Assistant Professor

Chemistry Department / Faculty of Science, Université du Québec à Montréal

Full-time, Assistant Professor Tenure Status: Tenure Track

2005/10 - 2005/11 Maître de conférence invité

Laboratoire Environnement et Chimie Analytique, École supérieure de physique et de

chimie industrielles Part-time, Lecturer

Tenure Status: Non Tenure Track

2005/6 - 2005/9 Professeur invité

Laboratoire d'électrochimie moléculaire, Université de Paris VII (Denis Diderot)

Part-time, Visiting Professorship Tenure Status: Non Tenure Track

Research Funding History

Awarded [n=14]

2016/7 - 2020/7 Co-applicant Structural evolution of electrode materials and mitigation of degradation by mn-trapping in li-ion batteries via complementary characterization methods and mathematical modeling, Grant

Funding Sources:

Natural Sciences and Engineering Research Council of Canada (NSERC)

CRDPJ

Total Funding - 798,000

Portion of Funding Received - 114,000

Funding Competitive?: Yes

Co-applicant: Botton, GA; Hughes, C; Metham, A; Protas, BL; Schougaard, Steen B;

Principal Applicant: Goward, Gillian R

2015/4 - 2020/4 Principal Applicant Developing High Speed Scanning Electrochemical Microscopy of Biological Substrates,

Grant

Funding Sources:

NSERC

Discovery Grants Program - Individual

Total Funding - 225,000

Portion of Funding Received - 225,000

Funding Competitive?: Yes

2015/10 - 2018/10 Principal Applicant Surface engineering of advanced composite coatings for significant enhancement to the life cycle of HydroPower infrastructure, Grant

Funding Sources:

Natural Sciences and Engineering Research Council of Canada (NSERC)

strategic

Total Funding - 427,500

Portion of Funding Received - 142,500

Funding Competitive?: Yes

2014/10 - 2017/10 Co-applicant NSERC-Strategic, Evaluating the use of N-heterocyclic carbenes in corrosion resistant

coatings for aluminum and magnesium alloys, Grant

Funding Sources:

Natural Sciences and Engineering Research Council of Canada (NSERC)

Total Funding - 458,553

Portion of Funding Received - 269,214

Funding Competitive?: Yes

2011/3 - 2017/4 Co-investigator Centre québecois sur les matériaux fonctionnels, Grant

Funding Sources:

Fonds Québécois de la Recherche sur la Nature et les Technologies (FQRNT)

Strategic Cluster

Total Funding - 3,498,000 Portion of Funding Received - 0 Funding Competitive?: Yes

Principal Investigator: Leclerc, Mario and 60 co-applicants

2016/1 - 2016/12

Idea to Innovation Grants, Grant

Principal Applicant

Funding Sources:

Natural Sciences and Engineering Research Council of Canada (NSERC)

Total Funding - 121,000

Portion of Funding Received - 121,000

Funding Competitive?: Yes

2012/7 - 2016/7 Co-investigator In Situ Studies of Electrochemical Processes in Automotive Materials, Grant

Funding Sources:

Natural Sciences and Engineering Research Council of Canada (NSERC)

Automotive Partnership Canada

Total Funding - 2,281,600

Portion of Funding Received - 250,976

Funding Competitive?: Yes

Principal Investigator: Goward, Gillian & 5 co-applicants

2011/3 - 2016/4

Predicting corrosion of magnesium alloys with complex microstructure and reactivity,

Principal Investigator Grant

Funding Sources:

Natural Sciences and Engineering Research Council of Canada (NSERC)

Collaborative Research and Development Grant

Total Funding - 973,000

Portion of Funding Received - 324,333

Funding Competitive?: Yes

Principal Investigator: Janine Mauzeroll; David Shoesmith; Gianluigi Botton

2011/4 - 2016/4

CREATE Training Program in Neuroengineering, Grant

Co-applicant

Funding Sources:

Natural Sciences and Engineering Research Council of Canada (NSERC)

Total Funding - 1,350,000

Portion of Funding Received - 120,000

Funding Competitive?: Yes

Co-applicant: Lennox, RB and 10 co-applicants

2013/3 - 2016/4 Principal Investigator

Methode analytique d'amplification a base de nanospheres electrochimiquement

luminescentes permettant la detection de trace de biomarqueurs, Grant

Funding Sources:

Fonds Québécois de la Recherche sur la Nature et les Technologies (FQRNT)

Total Funding - 150,000

Portion of Funding Received - 50,000

Funding Competitive?: Yes

Co-applicant: Mauzeroll, Janine and 2 co-applicants

2016/4 - 2016/3 Principal Applicant National Research Council Canada's Industrial Research Assistance Program, Grant

Funding Sources:

National Research Council Canada (NRC) (Ottawa, ON)

Total Funding - 32,000

Portion of Funding Received - 32,000

Funding Competitive?: Yes

2015/1 - 2015/12 Principal Investigator Testing and Evaluation of Electrochemical Cleaning, Contract

Funding Sources:

General Motors Canada Total Funding - 15,600

Portion of Funding Received - 15,600

Funding Competitive?: No

2010/3 - 2015/4

Towards multidrug resistance using SECM, Grant

Principal Investigator

Funding Sources:

Natural Sciences and Engineering Research Council of Canada (NSERC)

Discovery Grant

Total Funding - 185,000

Portion of Funding Received - 185,000

Funding Competitive?: Yes

Principal Investigator: Janine Mauzeroll

2011/3 - 2014/4 Principal Applicant Laboratory for Electrochemical reactive imaging and detection for biological systems,

Grant

Funding Sources:

Canada Foundation for Innovation (CFI)

Total Funding - 2,965,500

Portion of Funding Received - 2,965,500

Funding Competitive?: Yes

Principal Applicant: Mauzeroll, Janine

Completed [n=2]

2015/8 - 2015/10 Electrodes for HeKa, Contract

Principal Investigator

Funding Sources:

HEKA Electronik a division of Havard Bioscience Inc

Total Funding - 1,000

Portion of Funding Received - 1,000

Funding Competitive?: No

2012/3 - 2013/4

Liquid Flow Holder for In-Situ Transmission Electron Microscopy, Grant

Co-applicant Funding Sources:

4

Natural Sciences and Engineering Research Council of Canada (NSERC)

Total Funding - 150,000
Portion of Funding Received - 0
Funding Competitive?: Yes

Co-applicant : Soleymani, L and 6 co-applicants

Student/Postdoctoral Supervision

Bachelor's [n=7]

2014/5 - 2014/9 Chen, Yingqian (Completed), McGill University

Principal Supervisor Thesis/Project Title: D-Serine detection from astrocytes with home made nano electrode

Present Position: PhD Candidate UBC

2014/5 - 2015/4 Gateman, Samantha (Completed), McGill University

Principal Supervisor Thesis/Project Title: Development of Hg/Pt Hemispherical Nanoprobes for the Localized

Quantitative Detection of Mn2+:Proof of Concept

Present Position: PhD. candidate McGill

2013/5 - 2013/8 Boudreau, Colton (Completed), St. Francis Xavier University Principal Supervisor Thesis/Project Title: Western Blotting of H69 & H69R cells

Present Position: MSc. Student McGill

2013/5 - 2013/8 Vassileva, Ivon (Completed), McGill University

Principal Supervisor Thesis/Project Title: Green tea catechins viability studies on HeLa cells

Present Position: MSc. Student McGill

2013/5 - 2013/8 Wei, Xiaoyu (Completed), McGill University

Principal Supervisor Thesis/Project Title: Western Blotting of HeLa & HeLa-R cells

Present Position: student

2013/1 - 2013/5 (Name withheld) (Completed), McGill University

Principal Supervisor Thesis/Project Title: Development of polymer modified microelectrode

Present Position: N/A

2010/5 - 2012/8 St-Pierre, Charles (Completed), UQAM

Principal Supervisor Thesis/Project Title: Cancer cell stencilling of multidrug resistant strains

Present Position: PhD Candidate, IRIC

Bachelor's Honours [n=10]

2017/5 - 2017/9 Sifakis, Joseph (In Progress), McGill University

Principal Supervisor Thesis/Project Title: AStudy on The Dependence of Response Time and Sensitivity of

Peroxide OxidationTowards The Surface Roughness of Platinum Micro-Electrodes

Present Position: Undergraduate McGill

2017/5 - 2017/9 Lin, Monica (In Progress), McGill University

Principal Supervisor Thesis/Project Title: Preparation and Evaluation of Ferrocene-containing Surfactants in

Redox-sensitive Liposomes

Present Position: Undergraduate McGill

2017/5 - 2017/9 Robert, Anaïs (In Progress), McGill University

Principal Supervisor Thesis/Project Title: In vitro cytotoxicity of redox-sensitive liposomes co-encapsulating

doxorubicin and indomethacin

Present Position: Undergraduate McGill

2017/5 - 2018/1 Potts, Karlie (In Progress), McGill University

Principal Supervisor Thesis/Project Title: Design of a spectroelectrochemical instrument to further investigate

electrochemilumiscence systems

Present Position: Undergraduate McGill

2016/4 - 2016/9 Halimi, Ilias (Completed), McGill university

Principal Supervisor Thesis/Project Title: Surface analysis of advanced composite coatings for significant

enhancement to the life cycle of HydroPower infrastructure

Present Position: Master Student, U. Ottawa

2015/5 - 2016/5 Gordon, Jesse (Completed), McGill university

Principal Supervisor Thesis/Project Title: ElectrochemicalLuminescence Instrument Design

Present Position: PhD candidate, MIT

2013/5 - 2013/8 Sangji, Hussain Mohammad (Completed), McGill University

Principal Supervisor Thesis/Project Title: Shear force numerical simulation applied to SECM

Present Position: student

2012/5 - 2012/8 Mack, Timothy (Completed), McGill University

Principal Supervisor Thesis/Project Title: Numerical simulation of magnesium selective sensor for corrosion

studies

Present Position: PhD candidate, McGill

2012/5 - 2012/8 Salvatore, Danielle (Completed), McGill University

Co-Supervisor Thesis/Project Title: Electrochemistry and self-assembly of cupper containing DNA

Present Position: PhD candidate, UBC

2012/5 - 2013/8 Kwan, Annie (Completed), McGill University

Co-Supervisor Thesis/Project Title: Development of D-Serine selective sensor for neuroscience

Present Position: PhD Candidate McGill, Product Specialist at INNOVA Medical

Ophthalmics

Master's Thesis [n=2]

2016/9 - 2018/4 Skånvik, Sebastian (In Progress), McGill University

Principal Supervisor Thesis/Project Title: Investigation of multidrug resistance in HEK/HEK-MRP1 cells using

flow cytometry and SECM

Present Position: MSc. Student, McGill

2012/3 - 2014/8 Mazurkiewicz, Stefani (Completed), McGill University

Principal Supervisor Thesis/Project Title: Methods of Intracellular Glutathione Quantification in Cancer Cells

Present Position: Lab Tech, Hôpital européen Georges-Pompidou HEGP AP-HP

Doctorate [n=12]

2016/9 - 2020/9 Moussa, Siba (In Progress), McGill university

Principal Supervisor Thesis/Project Title: To be determined

Present Position: PhD candidate, McGill

2016/9 - 2020/4 Pan, Yani (In Progress), McGill University

Principal Supervisor Thesis/Project Title: Development of oil-based corrosion resistant coatings for the

protection of magnesium

Present Position: PhD candidate, McGill

2015/9 - 2019/9 Stephens, Lisa (In Progress), McGill University

Principal Supervisor Thesis/Project Title: Model development for corrosion phenomenon on metal-coating

Present Position: PhD candidate

2015/9 - 2019/9 Gateman, Samantha (In Progress), McGill University

Principal Supervisor Thesis/Project Title: Investigation of corrosion protectingcomplex composite materials for

metal systems using scanning electrochemicalmicroscopy

Present Position: PhD candidate, McGill

2015/7 - 2019/4 Odette, William (In Progress), McGill University

Principal Supervisor Thesis/Project Title: Investigating Redox-Active Vesicles for Drug Delivery Transport

Purposes

Present Position: PhD candidate, McGill

2014/10 - 2018/10 Dayeh, Malak (In Progress), McGill University

Principal Supervisor Thesis/Project Title: Scanning Electrochemical Microscopy

Present Position: Ph.D. Student

2013/9 - 2017/9 Danis, Andrew (In Progress), McGill University

Principal Supervisor Thesis/Project Title: Electrochemical luminescence of micelles

Present Position: Ph.D. student

2013/9 - 2016/4 Payne, Nicholas (In Progress), McGill University

Principal Supervisor Thesis/Project Title: Hydrogen mapping of magnesium corrosion alloys

Present Position: Ph.D. Student

2011/9 - 2015/9 Polcari, David (Completed), McGill University

Principal Supervisor Thesis/Project Title: Investigation of live cell processes using scanningelectrochemical

microscopy

Present Position: Postdoctoral fellow, UQAM

2011/9 - 2015/9 Dauphin Ducharme, Philippe (Completed), McGill University

Principal Supervisor Thesis/Project Title: Development of magnesium selective sensor for corrosion studies

Present Position: Post-Doctoral Fellow U. of Santa Barbara

2011/5 - 2016/8 Danis, Laurence (Completed), McGill University

Principal Supervisor Thesis/Project Title: Development of commercial Shear-Force Based microelectrodes

Present Position: Technical Advisor (patents), ROBIC

2011/4 - 2015/9 Kuss, Sabine (Completed), McGill University

Principal Supervisor Thesis/Project Title: Electrochemical quantification of multidrug resistance phenotype

Present Position: Postdoctoral fellow, Oxford University

Post-doctorate [n=9]

2017/1 - 2019/1 Ghavidel, Mohammadreza (In Progress), McGill University

Co-Supervisor Thesis/Project Title: Potentiometric Titration and Mn Ions Detection In Order to Study

Multifunctional Materials

Present Position: Postdoctoral fellow

2015/12 - 2017/11 Perry, Samuel (In Progress), McGill University

Principal Supervisor Thesis/Project Title: Electrochemical sensors for biological systems and corrosion

Present Position: Postdoctoral fellow, McGill

2014/9 - 2015/11 Kuss, Christian (Completed), McGill University Principal Supervisor Thesis/Project Title: Simulating galvanic corrosion

Present Position: Post-Doctoral Fellow at Oxford University

2014/3 - 2016/4 Noyhouzer, Tomer (In Progress), McGill University
Principal Supervisor Thesis/Project Title: Investigation of redox active GUVs

Present Position: postdoc

2013/1 - 2016/5 Snowden, Michael (Completed), McGill University

Principal Supervisor Thesis/Project Title: SECM application to battery technology

Present Position: postdoc

2012/9 - 2012/12 D'Annunzio, Claudine (Withdrawn), McGill University

Principal Supervisor Thesis/Project Title: Prediction corrosion behavior of magnesium alloys

Present Position: Optometry Student at University of Montreal

2012/4 - 2015/4 Mengesha, Ushula Tefashe (Completed), McGill University

Principal Supervisor Thesis/Project Title: Prediction corrosion behavior of magnesium alloys

Present Position: Post-Doctoral Fellow at the NRC Alberta

2012/1 - 2012/9 Thrin, Dao (Completed), McGill University

Principal Supervisor Thesis/Project Title: Prediction corrosion behavior of magnesium alloys

Present Position: Associate Professor, Université de La Rochelle

2009/10 - 2011/7 Cornut, Renaud (Completed), Grenoble INP

Co-Supervisor Thesis/Project Title: Numerical simulation of electrochemical phenomena

Present Position: Senior scientist, CEA/IRAMIS/NIMBE/LICSEN

Diploma [n=3]

2015/5 - 2015/9 Lessard, Alicia (Completed), Collège Jean-de-Brébeuf

Principal Supervisor Thesis/Project Title: Thermodynamic Studies of Electrochemical Processes

Present Position: Medecine student. McGill

2014/6 - 2014/8 Bellemare-Alford, Daphnée (Completed), Collège Jean-de-Brébeuf

Principal Supervisor Thesis/Project Title: pH Effects of Electrochemical Cells

Present Position: BSc. U. de Montreal

2013/5 - 2015/8 Langlois-Therien, Timothé (Completed) , Collège Jean-de-Brébeuf

Principal Supervisor Thesis/Project Title: Electrochemical deposition of Pt on indium tin oxide glass to use as

counter electrode in dye-sensitized solar cells Present Position: BSc. Student at McGill University

Research Associate [n=1]

2012/3 - 2017/6 Beaulieu, Isabelle (In Progress), McGill University Principal Supervisor Thesis/Project Title: Flow cytometry of cancer cells

Present Position: Research Associate

Event Administration

2016/7 - 2017/5 Co-Organizer, 100th Canadian Chemistry Conference and Exhibition- Surface

Electrochemistry, Conference, 2017/5 - 2017/6

2011/1 - 2011/1 Co-organizer, CSC symposium "Electrochemistry and Surface Catalysis", 94th Canadian

Chemistry Conference, and Exhibition, Conference, 2011/6 - 2011/6

Editorial Activities

2016/12 - 2019/12 Technical Editor for the Organic & Bioelectrochemistry area, Journal of The

Electrochemical Society, Journal

Organizational Review Activities

2015/11 - 2015/11 Ph.D. Internal Examiner, McGill University

Internal examiner on an evaluation committee for thesis dissertations in the Department of

Chemistry

2015/7 - 2015/7	Ph.D. Internal Examiner, McGill University Internal examiner on an evaluation committee for thesis dissertations in the Department of Chemistry
2014/9 - 2014/9	Ph.D. Internal Examiner, McGill University Internal examiner on an evaluation committee for thesis dissertations in the Department of Mining and Materials Engineering of McGill University
2013/11 - 2013/11	Ph.D. Internal Examiner, McGill University Internal examiner on an evaluation committee for thesis dissertations in the chemistry department of McGill University
2013/5 - 2013/5	Ph.D. Internal Examiner, McGill University Internal examiner on an evaluation committee for thesis dissertations in the chemistry department of McGill University
2013/3 - 2013/3	Ph.D. External Examiner, McGill University External examiner on an evaluation committee for thesis dissertations in the chemical engineering department of McGill University
2013/2 - 2013/2	M.Sc. Internal Examiner, McGill University Internal examiner on an evaluation committee for thesis dissertations in the chemistry department of McGill University
2013/2 - 2013/2	Ph.D. Internal Examiner, McGill University Internal examiner on an evaluation committee for thesis dissertations in the chemistry department of McGill University
2012/11 - 2012/11	Ph.D. Internal Examiner, McGill University Internal examiner on an evaluation committee for thesis dissertations in the chemistry department of McGill University

Presentations

- 1. (2017). Properties of Lithium Battery Particles from Electrochemical Micro-Pipets Measurements. 20th Topical Meeting of the International Society of Electrochemistry (March 20, 2017), Buenos Aires, Argentina Invited?: No, Keynote?: No
- 2. (2017). Localized detection of D-serine using an enzymatic amperometric biosensor and scanning electrochemical microscopy. IDAR 2017 The 3rd International Conference of D-Amino Acid Research. July 10-13., Varese, Italy Invited?: No, Keynote?: No
- (2017). Determination of the Relationship between Expression and Functional Activity of Multidrug Resistance-Associated Protein 1 using Scanning Electrochemical Microscopy. The 9th Workshop on SECM and Related Techniques (Aug 13-17), Warsaw, Poland Invited?: No, Keynote?: No
- 4. (2017). Potentiodynamic Polarisation Curves (PDP): To Fit or Not to Fit. 100th Canadian Chemistry Conference and Exhibition, Toronto, Canada Invited?: No, Keynote?: No
- (2017). A Modular Flow-through Platform for Spectroelectrochemical Analysis. 100th Canadian Chemistry Conference and Exhibition, Toronto, Canada Invited?: No, Keynote?: No
- 6. (2016). Redox Triggered Drug Delivery Liposomes Applied to Cancer Studies. Gordon Conference in Electrochemistry, Ventura, United States Invited?: Yes, Keynote?: No

- 7. (2016). Redox Triggered Vesicles a Promising Approach for Drug Delivery. Chemistry Seminar of the University of Akron, Akron, United States Invited?: Yes, Keynote?: No
- 8. (2016). Redox Triggered Vesicles a Promising Approach for Drug Delivery. Fall Symposium of the Electrochemical Society (Canadian Section), Oshawa, Canada Invited?: Yes, Keynote?: Yes
- 9. (2016). Redox Triggered Drug Delivery Liposomes Applied to Cancer Studies. University of Oldenburg Talk on May 19, 2016, Oldenburg, Germany Invited?: Yes, Keynote?: No
- (2015). Use of Scanning Electrochemical Microscopy to investigate Mg Alloy Corrosion. Faraday Discussion, London, United Kingdom Invited?: Yes, Keynote?: No
- 11. (2015). New Tools in Scanning Electrochemical Microscopy for Magnesium Alloy Corrosion Characterisation. Chemistry Department of University of Urbana-Champaign, Champaign, United States Invited?: Yes, Keynote?: No
- 12. (2015). Disk-Shaped Amperometric Enzymatic Biosensor for In Vivo Detection of D-Serine. NSERC-CREATE Training Program in Integrated Sensor Systems (ISS), Sherbrooke, Canada Invited?: Yes, Keynote?: No
- 13. (2015). Assessment of Multidrug Resistance on Cell Co-Culture Patterns Using Biological Scanning Electrochemical Microscopy. Chemistry Departmental Talk, University of Toronto, Toronto, Canada Invited?: Yes, Keynote?: No
- 14. (2015). Determination of Live Cell Electrochemical Kinetics by Forced Convection Effect of Biological SECM Constant Height Imaging Mode. The 8th International Workshop on SECM, Xiamen, China Invited?: Yes, Keynote?: No
- 15. (2015). New Tools in Scanning Electrochemical Microscopy for Magnesium Alloy Corrosion Characterization. 98th Canadian Chemistry Conference and Exhibition, Ottawa, Canada Invited?: Yes, Keynote?: No
- 16. (2015). Use of Scanning Electrochemical Microscopy to investigate Mg Alloy Corrosion. NACE Corrosion 2015, Dallas, United States Invited?: No, Keynote?: No
- 17. (2014). Studying Magnesium Alloys Using Scanning Electrochemical Microscopy. 52nd Kyushu Magnesium Workshop, Kumamoto, Japan

Main Audience: Researcher Invited?: No, Keynote?: Yes

18. (2014). Modulation of Charge Transfer Across Double Stranded DNA by Site-Specific Incorporation of Copper bis-Phenanthroline Complexes. 15th Topical Meeting of the International Society of Electrochemistry, Niagara, Canada

Main Audience: Researcher Invited?: Yes, Keynote?: No

19. (2014). Localized Investigations of the electrochemical properties of lithium iron phosphate films using micro-pipets. OREBA 1.0, Montreal, Canada

Main Audience: Researcher Invited?: No, Keynote?: No

20. (2014). Investigating Multidrug Resitance in Human Cancer Cells using Scanning Electrochemical Microscopy. Global Materials Network Workshop, Montreal, Canada

Main Audience: Researcher Invited?: No, Keynote?: No

21. Tefashe UM, Dauphin Ducharme P, Trinh D, Kish J. (2013). Light Weight Magnesium Alloy Corrosion Studied by Scanning Electrochemical Microscopy. 223rd ECS Meeting, Toronto, Canada Main Audience: Researcher

Invited?: No, Keynote?: No

22. (2013). Light Weight Corrosion of Magnesium Alloy. 7th Scanning Electrochemical Workshop, Ein Gedi, Israel

Main Audience: Researcher Invited?: No, Keynote?: No

23. (2013). Scanning Electrochemical Microscopy: fundamentals and applications. Advance in Electron

Microscopy, Hamilton, Canada Main Audience: Researcher Invited?: Yes, Keynote?: Yes

24. (2013). High Speed Scanning Electrochemical Microscopy Light Weight alloys application. Presentation at the University of Western Ontario, London, Canada

Main Audience: Researcher Invited?: Yes, Keynote?: No

25. (2013). Assessment of Multidrug Resistance on Cell Co-Culture Patterns Using Scanning Electrochemical Microscopy. Presentation to the Department of Chemistry and Biochemistry of the University of Maryland Baltimore County, Baltimore, United States

Main Audience: Researcher Invited?: Yes, Keynote?: No

26. Kuss S, Kuss C, Trinh D, Schougaard SB, Mauzeroll J. (2013). Forced Convection Effect and Kinetic Studies during Scanning Electrochemical Microscopy Imaging of Living Cells. 2013 MRS Fall Meeting & Exhibit, Boston, United States

Main Audience: Researcher Invited?: No, Keynote?: No

27. (2013). Studying Magnesium Alloys using Scanning Electrochemical Microscopy. Materials Science and Technology (MS&T), Montreal, Canada

Main Audience: Researcher Invited?: No, Keynote?: No

28. (2013). Assessment of Multidrug Resistance on Cell Co-Culture Patterns Using Biological Scanning Electrochemical Microscopy. Pittcon, Philadelphia, United States

Main Audience: Researcher Invited?: Yes, Keynote?: No

29. Mauzeroll J, Tefashe UM, Metera KJ, Sleiman HF. (2013). Electrochemiluminescence of Iridium Containing ROMP Polymers for Bioassay Applications. Surface Canada, London, Canada

Main Audience: Researcher Invited?: Yes, Keynote?: No

30. (2013). Monitoring Magnesium Cation and Hydrogen Release Dynamics during Magnesium Alloy Corrosion using Scanning Electrochemical Microscopy. Department of Chemistry Queen's University, Kingston, Canada

Main Audience: Researcher Invited?: Yes, Keynote?: No

31. (2013). Studying Magnesium Alloys using Scanning Electrochemical Microscopy. MagNet Canada-Japan

Workshop, Montreal, Canada Main Audience: Researcher Invited?: Yes, Keynote?: No 32. (2012). Scanning Electrochemical Microscopy and its Application to Chemical Imaging. 39th Annual Meeting of the Microscopical Society of Canada, Halifax, Canada

Main Audience: Researcher Invited?: Yes, Keynote?: No

33. (2012). Influence of Edge Effects on Local Corrosion Rate of Magnesium Alloy/Mild Steel Galvanic Couple.

NACE Northern Eastern Conference, Toronto, Canada

Main Audience: Researcher Invited?: Yes, Keynote?: No

34. Mauzeroll J, Cornut R, Poirier S, Kuss S. (2012). Scanning Electrochemistry Microscopy at High Speeds.

96th Canadian Chemistry Conference and Exhibition, Calgary, Canada

Main Audience: Researcher Invited?: No, Keynote?: No

35. Correia Ledo D, Arnold AA, Mauzeroll J. (2011). Synthesis of a Redox Active Ethyl-Ferrocene Phospholipid

by Transphosphatidylation Reaction and Chronoamperometry Study of the Corresponding Redox

Liposome. 94th Canadian Chemistry Conference and Exhibition, Montreal, Canada

Main Audience: Researcher Invited?: No, Keynote?: No

Broadcast Interviews

2013/09/24 - The Role of Industrial Partners Industrial partners, and researchers, share best

2013/09/24 practices on preparing your partners to take part in a site visit., Putting Your Best Foot

Forward: How to Prepare for a Successful NSERC Site Visit, NSERC video resource http://www.nserc-crsnq.gc.ca/Professors-Professeurs/Videos-Videos/SitesVisits-

VisitesEvaluation_eng.asp

2011/03/01 - Feature on Biological SECM, Analytical Chemistry Podcast, ACS Publications Analytical

2011/03/01 Chemistry pubs.acs.org/page/ancham/audio/index.html

Text Interviews

2016/12/14 Five Questions for Technical Editor Janine Mauzeroll New Technical Editor of the Journal

of The Electrochemical Society, concentrating in the Organic & Bioelectrochemistry Topical Interest Area., ECS Redcat Blog: http://www.electrochem.org/redcat-blog/five-

questions-technical-editor-janine-mauzeroll/

Publications

Journal Articles

1. Stephens LI*, Perry SC*, Gateman SM*, Lacasse R, Schulz R, Mauzeroll J. (2017). Development of a model for experimental data treatment of diffusion and activation limited polarization curves for magnesium and steel alloys. Journal of the Electrochemical Society. 164(11): E3576-E3582.

Published Refereed?: Yes

2. Payne NA*; Stephens LI*, Mauzeroll J *co-first authors. (2017). The Application of Scanning

Electrochemical Microscopy to Corrosion Research. Corrosion. 73(7): 759-780..

Published

Refereed?: Yes

3. Danis A*,Odette W*, Perry SC*, Sylvain C, Sleiman H, Mauzeroll J. (2017). Cuvette-Based Electrogenerated Chemiluminescence Detection System for the Assessment of Polymerizable Ruthenium Luminophores. ChemElectroChem.

Published

Refereed?: Yes

4. Polcari D*, Perry SC*, Pollegioni L, Geissler M, Mauzeroll J. (2017). Localized Detection of D-Serine Using an Enzymatic Amperometric Biosensor and Scanning Electrochemical Microscopy. ChemElectroChem. Published

Refereed?: Yes

5. Noyhouzer T, Snowden ME, Tefashe UM, Mauzeroll J. (2017). ModularFlow-Through Platform for Spectroelectrochemical Analysis. Analytical Chemistry. 89(10): 5246-5253.

Published

Refereed?: Yes

 Polcari D*, Hernandez-Castro JA*, Kebin LiGeissler M, Mauzeroll J. (2017). Determination of the Relationship between Expression and Functional Activity of Multidrug Resistance-Associated Protein 1 using Scanning Electrochemical Microscopy. Analytical Chemistry. 89(17): 8988–8994. Published

Refereed?: Yes

7. Noyhouzer T, L'Homme C*, Beaulieu I, Kuss S*, Mazurkiewicz S*, Kraatz B*, Canesi S, Mauzeroll J. (2016). Redox Triggered Drug Delivery Vesicles: A Ferrocene Modified Phospholipid. Langmuir. 32(17): 4169-4178.

Published

Refereed?: Yes

8. Polcari D*, Dauphin-Ducharme P*, Mauzeroll J. (2016). Scanning Electrochemical Microscopy: A Comprehensive Review of Experimental Parameters from 1989-2015. Chemical Reviews. 116: 13234-13278.

Published

Refereed?: Yes

9. Danis L*, Gateman SM*, Kuss C, Schougaard SB, Mauzeroll J. (2016). Nanoscale Measurements of Lithium Ion Battery Materials Using Scanning Probe Techniques. ChemElectroChem. 4: 6-19. Published

Refereed?: Yes

10. Snowden ME, Dayeh M*, Payne NA*, Gervais S*, Mauzeroll J,Schougaard SB. (2016). Measurement on isolated lithium iron phosphate particles reveals heterogeneity in material properties distribution. Journal of Power Sources. 325: 682-689.

Published

Refereed?: Yes

11. Kuss S*, Trinh D, Danis L*, Mauzeroll J. (2015). High-Speed Scanning Electrochemical Microscopy Method for Substrate Kinetic Determination: Method and Theory. Analytical Chemistry. 87(16): 8096–8101. Published

Refereed?: Yes, Open Access?: No

12. Kuss C, Payne NA*, Mauzeroll J. (2015). *Probing Passivating Porous Films by Scanning Electrochemical Microscopy*. Journal of the Electrochemical Society. 163(4): C677-C683.

Published

Refereed?: Yes

13. Danis L*, Gateman SM*, Snowden ME*, Halalay C, Howe JY, Mauzeroll J. (2015). Anodic Stripping Voltammetry at Nanoelectrodes: Trapping of Mn2+ by Crown Ethers. Electrochimica Acta.: 169-175. Published

Refereed?: Yes

14. Danis L*, Polcari D*, Kwan A*, Gateman SM*, Mauzeroll J. (2015). Fabrication of Carbon, Gold, Platinum, Silver and Mercury Ultramicroelectrodes with Controlled Geometry. Analytical Chemistry. 87(5): 2565-2569. Published

Refereed?: Yes

Dauphin-Ducharme P*, Kuss C,* Rossouw D*, Payne N A*, Danis L*, Botton G A, Mauzeroll J. (2015). Corrosion product formation monitored using the feedback mode of scanning electrochemical microscopy with carbon microelectrodes. Journal of the Electrochemical Society. 162(12): C677-C683. Published

Refereed?: Yes

Asmussen RM*, Binns J, Jakupi P*, Dauphin Ducharme P*, Tefashe UM*, Mauzeroll J, Shoesmith DW. (2015). Reducing the corrosion rate of magnesium alloys using ethylene glycol for advanced electrochemical imaging. Corrosion Science. 93: 70-79. Published

Refereed?: Yes

Dauphin Ducharme P*, Asmussen RM*, Shoesmith DW, Mauzeroll J. (2015). In-situ Mg2+ release 17. monitored during magnesium alloy corrosion. Journal of Electroanalytical Chemistry. 736: 61-68. Published

Refereed?: Yes

Dauphin Ducharme P*, Mauzeroll J. (2015). Surface Analytical Methods Applied to Magnesium Corrosion. Analytical Chemistry. 87(15): 7499-7509.

Published

Refereed?: Yes

Tefashe UM, Dauphin-Ducharme P*, Danaie M, Cano ZP*, Kish JR*, Botton GA, Mauzeroll J. (2015). Localized Corrosion Behavior of AZ31B Magnesium Alloy with an Electrodeposited Poly(3,4-Ethylenedioxythiophene) Coating. Journal of The Electrochemical Society. 162(10): C536-C544. Published

Refereed?: Yes, Open Access?: Yes

Kuss C.*, Payne N.A.*, Mauzeroll J.(2015). Probing Passivating Porous Films by Scanning Electrochemical 20. Microscopy. Journal of the Electrochemical Society. 163(4): H3066-H3071. Published

Refereed?: Yes, Open Access?: Yes

Dauphin Ducharme P*, Binns WJ*, Snowden ME, Shoesmith DW, Mauzeroll J. (2015). Determination of the local corrosion rate of magnesium alloys using a shear force mounted scanning microcapillary method. Faraday Discussion. 180: 331-345.

Published

Refereed?: Yes

Dauphin Ducharme P*, Rosati F*, Greschner A*, De Bruijn AD*, Salvatore D*, Toader V, Lau KL*, 22. Mauzeroll J, Sleiman, H. (2015). Modulation of Charge Transport Across Double Stranded DNA by Site-Specific Incorporation of Copper bis-Phenanthroline Complexes. Langmuir. 31(5): 1850-1854. Published

Refereed?: Yes, Open Access?: No

Castor K*, Tefashe U*, Metera K*, Serpell C*, Mauzeroll J, Sleiman H. (2015). Cyclometallated iridium(III) phenanthroimidazole complexes as luminescent and electrochemiluminescent G-quadruplex DNA binders. Inorganic Chemistry. 54(14): 6958–6967.

Published

Refereed?: Yes, Open Access?: No

24. Kuss S*, Trinh D, Mauzeroll J. (2015). High-Speed Scanning Electrochemical Microscopy Method forSubstrate Kinetic Determination: Application to Live Cell Imaging inHuman Cancer. Analytical Chemistry. 87: 8102–8106.

Published

Refereed?: Yes, Open Access?: No

25. Cottenye N*, Carbajal G*, Cui Z-K*, Dauphin Ducharme P*, Mauzeroll J, Lafleur M. (2014). Formation, stability, and pH sensitivity of stable, free-floating, giant unilamellar vesicles using palmitic acid-cholesterol mixtures. Soft Matter. 10: 6451-6456.

Published

Refereed?: Yes

26. Tefashe UM*, Dauphin-Ducharme P*, Danaie M, Cano ZP, Kish J, Botton G, Mauzeroll J. (2014). Localized corrosion behavior of AZ31B Magnesium Alloy with an electrodeposited poly(3,4-ethylenedioxythiophene) coating. Journal of Electrochemical Society. 162(10): C536-C544.

Published

Refereed?: Yes, Open Access?: Yes

27. Dauphin-Ducharme P*, Asmussen RM*, Tefashe UM*, Danaie M*,Binns WJ*,Jakupi P*, Botton GA, Shoesmith DW, Mauzeroll J. (2014). Local Hydrogen Fluxes Correlated to Microstructural Features of a Corroding Sand Cast AM50 Magnesium Alloy. Journal of the Electrochemical Society. 161(12): C557-C564. Published

Refereed?: Yes, Open Access?: Yes

28. Tefashe UM*, Snowden ME*, Dauphin Ducharme P*, Danaie M*, Botton GA, Mauzeroll J. (2014). Local flux of hydrogen from magnesium alloy corrosion investigated by scanning electrochemical microscopy. Journal of Electroanalytical Chemistry.: 720-721.

Published

Refereed?: Yes

29. Polcari D*, Kwan A*, Van Horn MR*, Danis L*, Pollegioni L, Ruthazer ES, Mauzeroll J. (2014). Disk-Shaped Amperometric Enzymatic Biosensor for In Vivo Detection of D-serine. Analytical Chemistry. 86(7): 3501-3507.

Published

Refereed?: Yes

30. Danis L*, Snowden ME*, Tefashe UM*, Heinemann CN, Mauzeroll J. (2014). Development of Nano-Disc electrodes for Application as Shear Force Sensitive Electrochemical Probes. Electrochimica Acta. : 121-129.

Published

Refereed?: Yes

31. Kuss S*, Kuss C*, Trinh D*, Schougaard SB, Mauzeroll J. (2013). Forced Convection during Scanning Electrochemical Microscopy Imaging over living cells: Effect of Topographies and Kinetics on the Microelectrode Current. Electrochem. Acta. 110: 42–48.

Published

Refereed?: Yes

32. Tefashe UM*, Metera KL*, Sleiman HF, Mauzeroll J. (2013). Electrogenerated Chemiluminescence of Iridium-Containing ROMP Block Copolymer and Self-Assembled Micelles.Langmuir. 29(41): 12866–12873. Published

Refereed?: Yes

33. Kuss S*, Polcari D*, Geissler M, Brassard D, Mauzeroll J. (2013). Assessment of Multidrug Resistance on Cell Co-Culture Patterns Using Scanning Electrochemical Microscopy. PNAS. 110(23): 9249–9254. Published

Refereed?: Yes, Open Access?: Yes

34. Cornut R*, Poirier S*, Mauzeroll J. (2012). Forced Convection during Feedback Approach Curve Measurements in Scanning Electrochemical Microscopy: Maximal Displacement Velocity with a Microdisk. Anal. Chem.84: 3531–3537.

Published Refereed?: Yes

35. Trinh D*, Dauphin Ducharme P*, Tefashe UM* Kish JR, Mauzeroll J. (2012). Influence of Edge Effects on Local Corrosion Rate of Magnesium Alloy/Mild Steel Galvanic Couple. Anal. Chem.84(22): 899–906. Published

Refereed?: Yes

36. Kuss S*, Cornut R*, Beaulieu I*, Mezour MA*, Annabi B, Mauzeroll J. (2011). The relation between Ferrocenemethanol and Multidrug Resistance and its application to Biological Scanning Electrochemical Microscopy.Bioelectrochemistry. 82(1): 29–37.

Published Refereed?: Yes

37. Cougnon C, Nguyen NH*, Dabos-Seignon S*, Mauzeroll J, Bélanger D. (2011). Carbon surface derivatization by electrochemical reduction of a diazonium salt in situ produced from the nitro precursor. J. Electroanal. Chem.661: 13–19.

Published Refereed?: Yes

38. Beaulieu I*, Geissler M, Kuss S*, Mauzeroll J. (2011). Biological Scanning Electrochemical Microscopy and Its Application to Live Cell Studies. Anal. Chem.83(5): 1485–1492.

Published Refereed?: Yes

39. Mezour MA*, Morin M, Mauzeroll J. (2011). Fabrication and Characterization of Laser Pulled Platinum Microelectrodes with Controlled Geometry. Anal. Chem.83(6): 2378–2382.

Published Refereed?: Yes

Book Chapters

1. Beaulieu I, Mauzeroll J. (2013). Scanning Electrochemical Microscopy Applied to Cancer Related Studies. Nazarpour S. Thin Films and Coatings in Biology. : 331-362.

Published, Springer Science and Business Media

Refereed?: Yes

2. Mauzeroll J, Schougaard SB. (2012). Scanning Electrochemical Microscopy of Biological Cells. Bard AJ, Mirkin MV. Scanning Electrochemical Microscopy. 2nd: 379-416.

Published, Taylor and Francis Group

Refereed?: Yes

Reports

- 1. Dauphin Ducharme P*, Asmussen RM, Tefashe UM*, Danaie, M*, Binns J*, Jakupi*, Botton G, Shoesmith DW, Mauzeroll J. (2014). Microgalvanic Corrosion of Sand Cast AM50 Magnesium Alloy Assessed using the Substrate-Generation/Tip-Collection Mode of Scanning Electrochemical Microscopy. 23. General Motors.
- 2. Tefashe UM*, Dauphin Ducharme P*, Mauzeroll J. (2014). Study of the local electrodeposition of poly(3,4-ethylenedioxythiophene) on AZ31 alloy in ionic liquid and corrosion behaviour of the coated alloy. 17. General Motors.
- 3. Dauphin Ducharme P*, Snowden M*, Mauzeroll J. (2014). Shear Force Controlled Scanning Micropipet for high resolution topographic imaging. 13. General Motors.

- 4. Tefashe UM*, Snowden M*, Dauphin Ducharme P*, Danaie, M*, Botton G, Mauzeroll J. (2013). Local rate of hydrogen evolution from magnesium alloy corrosion investigated by scanning electrochemical microscopy. 20. General Motors.
- 5. Trinh D*, Mauzeroll J. (2012). Investigation of mixed material edge effect on galvanic corrosion for AE44-MS couple. 13. General Motors.
- 6. Tefashe UM*, Dauphin Ducharme P*, Mauzeroll J. (2012). Influence of microstructure on local corrosion properties of AM50 magnesium alloys studied by scanning electrochemical microscopy. 22. General Motors.
- 7. Dauphin Ducharme P*,Tefashe UM*, Trinh D*, Kish J, Mauzeroll J. (2012). Influence of edge effects on local corrosion rate of magnesium alloy/mild steel galvanic couple. 21. General Motors.
- 8. Dauphin Ducharme P*, Mauzeroll J. (2011). Simulation (2D) of corrosion at bi-metallic interfaces: UQAM validation report on existing GM model to 4.2 Comsol version. 29. General Motors.
- 9. Dauphin Ducharme P*, Mauzeroll J. (2011). SECM probe and validation: design of Mg selective and nanoelectrode sensors suitable for SECM studies of Mg Alloys. 13. General Motors.

Conference Publications

1. Tefashe UM*, Dauphin Ducharme P*, Snowden ME*, Mauzeroll J. (2013). Correlation Between Microstructure and Corrosion Properties of Die-Cast AM50 Magnesium Alloy. Magnesium Technology. Materials Science & Technology 2013, Montreal, Canada (1567-1573)

Conference Date: 2013/10

Paper Published

Refereed?: No, Invited?: Yes

2. Trinh D*, Dauphin Ducharme P*, Tefashe UM*, Kish JR, Mauzeroll J. (2013). Studying Magnesium Alloys using Scanning Electrochemical Microscopy. Magnesium Technology. Materials Science & Technology 2013, Montreal, Canada (1472-1473)

Conference Date: 2013/10

Abstract Published

Refereed?: No, Invited?: Yes

3. Dauphin Ducharme P*, Mauzeroll J. (2013). Monitoring Magnesium Cation Release Dynamics during Magnesium Alloy Corrosion Using Potentiometric Mg2+ Ion-selective Microelectrode. Magnesium Technology. Materials Science & Technology 2013, Montreal, Canada (1469-1471)

Conference Date: 2013/10

Abstract Published

Refereed?: No, Invited?: Yes

Intellectual Property

Patents

1. Multi-Purpose Electrochemical Flow Cell. Canada. US 62/134,809.

Patent Status: Pending

2. Process for fabrication of carbon, platinum and silver disk ultramicroelectrodes with controlled geometry. Canada. US 62/200,156.

Patent Status: Pending

3. REDOX-SENSITIVE VESICLES. Canada. PCT/CA2016/050039. 2015/01/19. Patent Status: Pending