



**SOUTHERN ONTARIO  
STUDENT SECTION**

7<sup>th</sup> Annual Symposium- July 19<sup>th</sup> and 20<sup>th</sup>, McMaster University  
McMaster Automotive Resource Centre: Room 266



<b>Wednesday July 19, 2017</b>		<b>Chair</b>
<b>9:20 – 9:30</b>	<b>Welcoming Remarks</b>	<b>Shooka Mahboubi</b>
<b>9:30 – 10:10</b>	<b>Keynote: Advancements in Pipeline Anti-Corrosion Coating Technologies</b> <b>Dr. Somaieh Salehpour</b> Shawcor	
<b>10:10 – 10:30</b>	<b>Electrochemical Properties of Continuous Galvanized Coatings on Direct Hot Pressed Steels</b> <b>Caitlin Dever, Joseph Kish, and Joseph McDermid</b> Centre for Automotive Materials and Corrosion, McMaster University	
<b>10:30 – 10:40</b>	<b>Coffee Break</b>	
<b>10:40 – 11:00</b>	<b>The Role of Internal Cathodic Reactions During the Crevice Corrosion of Ni-Cr-Mo Alloys</b> <b>Jeff D. Henderson<sup>1</sup>, Nafis Ebrahimi<sup>1</sup>, Samantha R. Anderson<sup>1</sup>, David W. Shoesmith<sup>1,2</sup>, and James J. Noël<sup>1,2</sup></b> <sup>1</sup> Department of Chemistry, Western University, London, Canada, N6A 5B7 <sup>2</sup> Surface Science Western, Western University, London, Canada, N6G 0J3	<b>Joseph Turnbull</b>
<b>11:00 – 11:20</b>	<b>The Effect of Chloro-Complexation of Metal Ions on Pitting Potential in a One-Dimensional Pit</b> <b>Van Anh T Nguyen, Mahmoudreza Ghaznavi, Anatolie G. Carcea and Roger C. Newman</b> Department of Chemical Engineering and Applied Chemistry, University of Toronto	
<b>11:20 – 11:30</b>	<b>Coffee Break</b>	
<b>11:30 – 11:50</b>	<b>Intergranular Stress Corrosion Cracking Susceptibility of Type 310S Stainless Steel Exposed in Supercritical Water</b> <b>Yinan Jiao and Joseph Kish</b> Department of Materials Science and Engineering, McMaster University	<b>Anir Foroozan</b>

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11:50 – 12:10	<p><b>The Effect of Radiation on the Kinetics of Corrosion of Carbon Steel-Stainless Steel Welds</b></p> <p>Mi Li<sup>1</sup>, Jiju Joseph<sup>1</sup>, Otto Yong<sup>2</sup>, J. Clara Wren<sup>1</sup></p> <p><sup>1</sup>Department of Chemistry, Western University, London, ON, Canada <sup>2</sup>Chemistry, Metallurgy &amp; Welding Department, Components Engineering Division – Ontario Power Generation</p>	
12:10 – 14:00	<p><b>Lunch –Provided</b> <b>Sponsored by NWMO</b></p>	
14:00 – 14:40	<p><b>Keynote: An Overview on NWMO Corrosion Program</b></p> <p>Dr. Mehran Behazin NWMO</p>	Carlin Dever
14:40-15:00	<p><b>The Time Dependence Effects of pH, Temperature and Radiation on Corrosion and Oxide Formation on Pure Nickel</b></p> <p>Razieh Karimi Haghighi, and J. Clara Wren Western University, London, Ontario, Canada</p>	
15:00 – 15:20	<p><b>Effect of Milling Temperature and Media on Mechanically Alloyed Nickel-Based Electrocatalysts for the Oxygen Evolution Reaction</b></p> <p>Kevin M. Cole, Donald W. Kirk and Steven J. Thorpe Department of Chemical Engineering and Applied Chemistry, University of Toronto</p>	
15:20 – 17:00	<p><b>Student Poster Session</b></p>	

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<b>Thursday July 20, 2017</b>		<b>Chair</b>
<b>9:45 – 10:25</b>	<b>Keynote: CP in Canada</b> <b>Hycem Bahgat</b> Corrosion Service	<b>Mojtaba Momeni</b>
<b>10:25 – 10:45</b>	<b>Corrosion and Void Characterization of Copper-Coated Carbon Steel</b>  <b>Thalia E. Standish<sup>1</sup>, Dmitriy Zagidulin<sup>1</sup>, Sridhar Ramamurthy<sup>2</sup>, James J. Noël<sup>1,2</sup>, and David W. Shoesmith<sup>1,2</sup></b>  <sup>1</sup> Department of Chemistry, Western University, London, Ontario, Canada, N6A 5B7 <sup>2</sup> Surface Science Western, Western University, London, Ontario, Canada, N6G 0J3	
<b>10:45 – 11:00</b>	<b>Coffee Break</b>	
<b>11:00 – 11:20</b>	<b>Effect of As Alloying on Corrosion of Mg Alloy AM60B in Saline Solutions</b>  <b>Beth McNally, Dong Fu and Joseph Kish</b> Centre for Automotive Materials and Corrosion, McMaster University	<b>Vindel Ransundar</b>
<b>11:20 – 11:40</b>	<b>Mechanically Alloyed Amorphous Ni-Nb-Y Electrocatalyst for the Hydrogen Evolution Reaction in Alkaline Water Electrolysis</b>  <b>Samy Ghobrial<sup>1</sup>, Donald W. Kirk<sup>2</sup>, and Steven J. Thorpe<sup>1</sup></b> Department of Chemical Engineering and Applied Chemistry, University of Toronto	
<b>11:40 – 12:00</b>	<b>Atom Probe Tomography of Dealloyed Materials</b>  <b>A.A. El-Zoka<sup>1</sup>, Roger C. Newman<sup>1</sup>, and Brian Langelier<sup>2</sup></b> <sup>1</sup> Department of Chemical Engineering and Applied Chemistry, University of Toronto, Toronto, ON, Canada <sup>2</sup> Department of Materials Science and Engineering, McMaster University, Hamilton, ON, Canada	
<b>12:00- 13:30</b>	<b>Lunch- Provided- Sponsored by NWMO and Corrosion Service</b>	
<b>13:30 – 14:00</b>	<b>Keynote: Using TEM and EELS to Probe Corrosion and Oxidation of Alloys</b>  <b>Dr. Gianluigi Botton</b> Canadian Center for Electron Microscopy (CCEM)	<b>Sara Filice</b>
<b>14:00 – 14:30</b>	<b>Keynote: FIB Characterization of Materials: Understand Corrosion from the Nano to Meso-scale</b>  <b>Dr. Nabil Bassim</b> Canadian Center for Electron Microscopy (CCEM)	
<b>14:30 – 15:00</b>	<b>Keynote: Atom Probe Tomography and Its application to Studies of Corrosion</b>  <b>Dr. Brian Langelier</b> Canadian Center for Electron Microscopy (CCEM)	
<b>15:00 – 15:15</b>	<b>Closing Remarks and Awards Ceremony</b> <b>Awards Sponsored by Shawcor</b>	