

8<sup>th</sup> Annual Symposium- July 26<sup>th</sup> and 27<sup>th</sup>, University of Toronto  
(Wallberg Memorial Building, 200 College Street, Room WB130)

<b>Thursday July 26, 2018</b>		<b>Chair</b>
<b>9:30 – 9:40</b>	<b>Welcoming Remarks</b>	<b>Amir Foroozan</b>
<b>9:40 – 10:20</b>	<b>Keynote: The Corrosion and Cracking of Nuclear Materials in High-Temperature Aqueous Environments</b>  <b>Dr. Jared Smith</b> Canadian Nuclear Laboratories (CNL)	
<b>10:20 – 10:40</b>	<b>Effect of Anions on Copper Corrosion Dynamics</b>  <b>Masoumeh (Masi) Naghizadeh<sup>1</sup>, J.M. Joseph<sup>1</sup>, M. Behazin<sup>2</sup>, P.G. Keech<sup>2</sup>, J.C. Wren<sup>1</sup></b>  <sup>1</sup> Department of Chemistry, Western University, London, ON, Canada <sup>2</sup> NWMO, Toronto, ON, Canada	
<b>10:40 – 11:00</b>	<b>Coffee Break</b>	
<b>11:00 – 11:20</b>	<b>Radiolytic Corrosion of Copper in Thin Stagnant Water Layers</b>  <b>Lindsay Grandy<sup>1</sup>, M. Naghizadeh<sup>1</sup>, J.M. Joseph<sup>1</sup>, G. Whitaker<sup>1</sup>, M. Behazin<sup>2</sup>, P.G. Keech<sup>2</sup>, J.C. Wren<sup>1</sup></b>  <sup>1</sup> Department of Chemistry, Western University, London, ON, Canada <sup>2</sup> NWMO, Toronto, ON, Canada	<b>Joseph Turnbull</b>
<b>11:20 – 11:40</b>	<b>Integrated Effects of pH, Ionic Strength and <math>\gamma</math>-Radiation on the Evolution of Carbon Steel Corrosion in Stagnant Solutions at 150°C</b>  <b>Thao Do, Y.G. Shin, J.M. Joseph, J.C. Wren</b> Department of Chemistry, Western University, London, ON, Canada	
<b>11:40 – 12:00</b>	<b>Time-Dependent Study on the Effect of Radiation on Corrosion and Oxide Formation on Pure Nickel in Buffered and Non-Buffered Solutions</b>  <b>Razieh (Rose) KarimiHaghighi, T. Do, J.C. Wren</b> Department of Chemistry, Western University, London, ON, Canada	
<b>12:00 – 13:30</b>	<b>Lunch- Provided - Sponsored by CNL and Corrosion Service</b>	
<b>13:30 – 13:50</b>	<b>The Nature of Sulphide Film Formed Voltammetrically on Copper in Slightly Alkaline (pH) Aqueous Solutions Containing Sulphide and Chloride</b>  <b>Mengnan Guo<sup>1</sup>, J. Chen<sup>1</sup>, T. Martino<sup>1</sup>, J.J. Noël<sup>1,2</sup>, D.W. Shoesmith<sup>1,2</sup></b> <sup>1</sup> Department of Chemistry, Western University, London, ON, Canada <sup>2</sup> Surface Science Western, Western University, London, ON, Canada	<b>Sara Filice</b>
<b>13:50-14:10</b>	<b>Electrochemical Evaluation of the Pitting Susceptibility of Copper in Aqueous Sulphide Solutions</b>  <b>Taylor Martino<sup>1</sup>, J. Smith<sup>2</sup>, J.Chen<sup>1</sup>, Z. Qin<sup>1</sup>, J.J. Noël<sup>1,3</sup>, D.W. Shoesmith<sup>1,3</sup></b> <sup>1</sup> Department of Chemistry, Western University, London, ON, Canada <sup>2</sup> Canadian Nuclear Laboratories, Chalk River, ON, Canada <sup>3</sup> Surface Science Western, Western University, London, ON, Canada	
<b>14:10 – 16:00</b>	<b>Student Poster Session</b>	

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<b>Friday July 27, 2018</b>		<b>Chair</b>
<b>9:45 – 10:25</b>	<b>Keynote: Evaluation of Micro-to-Nano Scale Stress Corrosion Cracking (SCC) Precursors</b> <b>Dr. Suraj Persaud</b> Department of Mechanical and Materials Engineering, Queen’s University, Kingston, ON, Canada	<b>Masoud Zakeri</b>
<b>10:25 – 10:45</b>	<b>Characterization of Internal Oxidation in Alloy 690 Exposed to Hydrogenated Steam</b> <b>Hao Zhu, R.C. Newman</b> Department of Chemical Engineering and Applied Chemistry, University of Toronto, Toronto, ON, Canada	
<b>10:45 – 11:00</b>	<b>Coffee Break</b>	
<b>11:00 – 11:20</b>	<b>Evolution of Carbon Steel Corrosion in Stagnant, Small Volume Solution Under Radiation</b> <b>Youn (Jennifer) Shin<sup>1</sup>, J.M. Joseph<sup>1</sup>, M. Behazin<sup>2</sup>, P.G. Keech<sup>2</sup>, J.C. Wren<sup>1</sup></b> <sup>1</sup> Department of Chemistry, Western University, London, ON, Canada <sup>2</sup> NWMO, Toronto, ON, Canada	<b>Vindel Ramsundar</b>
<b>11:20 – 11:40</b>	<b>The Effect of Hydrogen Absorption on the Passivity of Oxides on Carbon Steels</b> <b>Maxwell Goldman, C. Tully, D. Zagidulin, R. Oviasuyi, B. Santos, J.J. Noël, D.W. Shoesmith</b> Department of Chemistry, Western University, London, ON, Canada	
<b>11:40 – 12:00</b>	<b>High Resolution Characterization of Functional Nanoporous Metals</b> <b>Ayman El-Zoka<sup>1</sup>, R.C. Newman<sup>1</sup>, D.D. Perovic<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, University of Toronto, Toronto, ON, Canada	
<b>12:00- 13:30</b>	<b>Lunch- Provided - Sponsored by CNL and Corrosion Service</b>	
<b>13:30 – 14:00</b>	<b>Keynote: OCCAM – One-Stop Shopping at the Frontiers of Materials Characterization</b> <b>Dr. Rana Sodhi</b> Ontario Centre for the Characterisation of Advanced Materials (OCCAM)	<b>Sara Filice</b>
<b>14:00 – 14:30</b>	<b>Closing Remarks and Awards Ceremony</b> <b>Awards Sponsored by CNL</b>	
<b>14:30 – 15:10</b>	<b>Tour of OCCAM</b>	

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