

## Conference Presentations

### 2011

V. I. **Birss**, A. **Petric**, and S. Thomas, “Solid Oxide Fuel Cells Canada NSERC Strategic Research Network”, 12<sup>th</sup> International Symposium on Solid Oxide Fuel Cells, 219<sup>th</sup> ECS meeting, Montreal, May 1-6, 2011.

J. L. Young, V. Vedharathinam, and V. I. **Birss**, “Reverse Cell Bias for the Prevention of Ni Oxidation during Air Exposure”, 12<sup>th</sup> International Symposium on Solid Oxide Fuel Cells, 219<sup>th</sup> ECS meeting, Montreal, May 1-6, 2011.

B. Mirfakhraei, V. I. **Birss**, V. **Thangadurai**, S. Paulson, K. E. Béré, and F. **Gitzhofer**, “Electrochemical Performance and H<sub>2</sub>S Poisoning Study of Mo-Doped Ceria (CMO) SOFC Anodes”, 12<sup>th</sup> International Symposium on Solid Oxide Fuel Cells, 219<sup>th</sup> ECS meeting, Montreal, May 1-6, 2011.

V. I. **Birss**, S. Paulson, and T. Smith, “Understanding Performance Losses at Ni-Based Anodes Due to Sulfur Exposure”, 12<sup>th</sup> International Symposium on Solid Oxide Fuel Cells, 219<sup>th</sup> ECS meeting, Montreal, May 1-6, 2011.

M. Phongaksorn, A. Yan, M. Ismail, A. Ideris, E. **Croiset**, S. **Corbin** and Y. **Yoo**, “Investigation of MgO Promoted NiO:SDC Anode Material for Intermediate Temperature Solid Oxide Fuel Cells”, 12<sup>th</sup> International Symposium on Solid Oxide Fuel Cells, 219<sup>th</sup> ECS meeting, Montreal, May 1-6, 2011.

Amir Reza Hanifi, Alireza Torabi, Mark Zazulak, Thomas H. **Etsell**, Luis Yamarte, Partha **Sarkar**, and Michael C. Tucker, “Improved Redox and Thermal Cycling Resistant Tubular Ceramic Fuel Cells”, 12<sup>th</sup> International Symposium on Solid Oxide Fuel Cells, 219<sup>th</sup> ECS meeting, Montreal, May 1-6, 2011.

Alireza Torabi, Amir Reza Hanifi, Thomas H. **Etsell**, and Partha **Sarkar**, “The Influence of Porous Support Morphology on the Electrochemical Performance of Solid Oxide Fuel Cells”, 12<sup>th</sup> International Symposium on Solid Oxide Fuel Cells, 219<sup>th</sup> ECS meeting, Montreal, May 1-6, 2011.

S. M. Bukhari and J. B. **Giorgi**, “Performance of Sm<sub>0.95</sub>Ce<sub>0.05</sub>Fe<sub>1-x</sub>Ni<sub>x</sub>O<sub>3-δ</sub> Perovskite as Anode Materials under Methane Fuel for Low Temperature Solid Oxide Fuel Cells (LT - SOFC)”, 12<sup>th</sup> International Symposium on Solid Oxide Fuel Cells, 219<sup>th</sup> ECS meeting, Montreal, May 1-6, 2011.

S. Islam and J. M. **Hill**, “Microwave-assisted preparation of Cu coated Ni/YSZ anode for direct utilization of dry CH<sub>4</sub> in SOFC”, 12<sup>th</sup> International Symposium on Solid Oxide Fuel Cells, 219<sup>th</sup> ECS meeting, Montreal, May 1-6, 2011.

A. Singh and J. M. **Hill**, “Evaluation of Sn-modified Ni/YSZ SOFC anodes for the direct utilization of methane”, 12<sup>th</sup> International Symposium on Solid Oxide Fuel Cells, 219<sup>th</sup> ECS meeting, Montreal, May 1-6, 2011.

M. A. Buccheri and J. M. **Hill**, “Gas products analysis during the electrochemical conversion of dry methane with a La<sub>0.3</sub>Sr<sub>0.7</sub>TiO<sub>3</sub> and Ni/YSZ bi-layer SOFC anode”, 12<sup>th</sup> International Symposium on Solid Oxide Fuel Cells, 219<sup>th</sup> ECS meeting, Montreal, May 1-6, 2011.

E. Hardjo, M. Monder and K. **Karan**, “Numerical Modeling of Nickel-impregnated Porous YSZ-supported Anodes and Comparison to Conventional Composite Ni-YSZ Electrodes”, 12<sup>th</sup> International Symposium on Solid Oxide Fuel Cells, 219<sup>th</sup> ECS meeting, Montreal, May 1-6, 2011.

D. S. Monder and K. **Karan**, “A near Triple-Phase Boundary Region Model for H<sub>2</sub>S Poisoning of SOFC Anodes”, 12<sup>th</sup> International Symposium on Solid Oxide Fuel Cells, 219<sup>th</sup> ECS meeting, Montreal, May 1-6, 2011.

M. Cuglietta and O. **Kesler**, “Fabrication of Direct Oxidation Solid Oxide Fuel Cell Anodes Using a Novel Technique in Atmospheric Plasma Spraying”, 12<sup>th</sup> International Symposium on Solid Oxide Fuel Cells, 219<sup>th</sup> ECS meeting, Montreal, May 1-6, 2011.

E. Lay, C. Metcalfe, and O. **Kesler**, “Influence of Tertiary Phases Incorporated into Ni-based Cermets by Solution Precursor Plasma Spraying (SPPS) on Anode Stability”, 12<sup>th</sup> International Symposium on Solid Oxide Fuel Cells, 219<sup>th</sup> ECS meeting, Montreal, May 1-6, 2011.

C. Metcalfe, E. Lay, and O. **Kesler**, “Measurement of Knudsen and Effective Fickian Diffusion Coefficients in Solid Oxide Fuel Cell Anodes Fabricated by Atmospheric Plasma Spraying Using Solution Precursor, Suspension, and Powder Feedstocks”, 12<sup>th</sup> International Symposium on Solid Oxide Fuel Cells, 219<sup>th</sup> ECS meeting, Montreal, May 1-6, 2011.

M. Roushanafshar, J.L. **Luo**, K.T. **Chuang**, and A.R. Sanger, “Effect of Hydrogen Sulfide on Electrochemical Oxidation of Syngas for SOFC Application”, 12<sup>th</sup> International Symposium on Solid Oxide Fuel Cells, 219<sup>th</sup> ECS meeting, Montreal, May 1-6, 2011.

P. Wei, S. Sofie, Q. Zhang, and A. **Petric**, “Metal Supported Solid Oxide Fuel Cell by Freeze Tape Casting”, 12<sup>th</sup> International Symposium on Solid Oxide Fuel Cells, 219<sup>th</sup> ECS meeting, Montreal, May 1-6, 2011.

H. Choi, D. Gawel, A. Berson, J. **Pharoah**, and K. **Karan**, “Comparison between FIB-SEM Experimental 3-D Reconstructions of SOFC Electrodes and Random Particle-Based Numerical Models”, 12<sup>th</sup> International Symposium on Solid Oxide Fuel Cells, 219<sup>th</sup> ECS meeting, Montreal, May 1-6, 2011.

H. Choi, A. Berson, J. **Pharoah**, and S. **Beale**, “Effect of the Porous Micro-Structural Properties on the Performance with the Cell Model in Solid Oxide Fuel Cells”, 12<sup>th</sup> International Symposium on Solid Oxide Fuel Cells, 219<sup>th</sup> ECS meeting, Montreal, May 1-6, 2011.

W. H. Kan, T. Trinh, T. Fürstenthaupt, and V. **Thangadurai**, “Synthesis, Structure, and Electrical Transport Properties of  $\text{Ba}_2(\text{Ca}_{0.67+x+y}\text{Fe}_x\text{Nb}_y)(\text{Nb}_{1.33-y-z}\text{Fe}_z)\text{O}_{6-\delta}$ ”, 12<sup>th</sup> International Symposium on Solid Oxide Fuel Cells, 219<sup>th</sup> ECS meeting, Montreal, May 1-6, 2011.

V. **Thangadurai**, W. H. Kan, B. Mirfakhraei, S. Bhella, and T. Trinh, “Ceramic Proton Conducting Solid Oxide Fuel Cells (H-SOFCs): Materials and Challenges”, 12<sup>th</sup> International Symposium on Solid Oxide Fuel Cells, 219<sup>th</sup> ECS meeting, Montreal, May 1-6, 2011.

M. Shishkin and T. **Ziegler**, “Ab Initio Study of Activity and Coke-Tolerance of Ni/CeZrO<sub>2</sub> Anodes of SOFC as a Function of Zirconia Concentration”, 12<sup>th</sup> International Symposium on Solid Oxide Fuel Cells, 219<sup>th</sup> ECS meeting, Montreal, May 1-6, 2011.

## 2010

Nicolas **Abatzoglou**, Clémence Fauteux-Lefebvre, Nadi Braidy, “Biodiesel Reforming with a NiAl<sub>2</sub>O<sub>4</sub>/Al<sub>2</sub>O<sub>3</sub>-YSZ Catalyst for the Production of Renewable SOFC Fuel”, 5th International Ege Energy Symposium and Exhibition, June 27-30, 2010, Pamukkale University, Denizli, Turkey.

N. Abatzoglou\*, K. Shanmugapriya and N. Braidy, “Investigation of the role of surface nanometric sulphur and carbon moieties in Ni-catalyzed steam and dry reforming of hydrocarbons”, Invited lecture, paper to appear in the Proceedings of PacifiChem 2010, Hawaii, Dec. 15-20, 2010.

Clémence Fauteux-Lefebvre and Nicolas **Abatzoglou**, “Nickel-alumina spinel catalyst for diesel steam reforming: Effect of the Ni load”, 21st Canadian Symposium on Catalysis, Banff, Canada, May 9-12, 2010.

D.H. Jeon, S.B. **Beale**, H.-W. Choi, J.G. **Pharoah**, and H. Roth, “Computational study of heat transfer issues in solid oxide fuel cells”, in 21st International Symposium on Transport Phenomena, Kaohsiung City, Taiwan, 2-5 November 2010.

D.H. Jeon, S.B. **Beale**, H.-W. Choi, and J.G. **Pharoah**, “Multi-scale transport in solid oxide fuel cells”, in International Conference on Computational & Experimental Engineering and Sciences, Las Vegas, NV, USA, 2010.

Jason Young and Viola I. **Birss**, “Electrolyte Cracking due to Ni-YSZ Anode Redox Cycling”, NSERC SOFCC Strategic Research Network AGM, May 26-28, 2010.

Behzad Mirfakhraei, Scott Paulson, Venkataraman **Thangadurai** and Viola I. **Birss**, “Application of Ba(Zr<sub>0.1</sub>Ce<sub>0.7</sub>Y<sub>0.1</sub>M<sub>0.1</sub>)O<sub>3-d</sub> (M=Y, Cr, Mn, Fe, Co, and Ni) perovskites as new anode materials for solid oxide fuel cells”, NSERC SOFCC Strategic Research Network AGM, May 26-28, 2010.

Scott Paulson, Matthew Sponiar, Behzad Mirfakhraei and Viola **Birss**, “Adding oxide phases to Ni-YSZ SOFC Anodes to mitigate H<sub>2</sub>S Poisoning”, NSERC SOFCC Strategic Research Network AGM, May 26-28, 2010.

Lisa Deleebeeck, Scott Paulson, and Viola **Birss**, “Sulphur tolerance of La<sub>1-x</sub>Sr<sub>x</sub>Mn<sub>1-y</sub>CryO<sub>3±δ</sub>:YSZ composite SOFC anodes”, NSERC SOFCC Strategic Research Network AGM, May 26-28, 2010.

Parastoo Keyvanfar, Scott Paulson, and Viola **Birss**, “Porous Electrolyte-Supported Tubular SOFC System” NSERC SOFCC Strategic Research Network AGM, May, 2010.

Amir Reza Hanifi, Alireza Torabi, Thomas H. **Etsell**, Partha **Sarkar**, “Improved Redox-Cycling Resistant Tubular Ceramic Fuel Cells”, 61<sup>st</sup> Annual Meeting of the ISE, Nice, France, September 26-October 1, 2010.

Alireza Torabi, Thomas H. **Etsell**, Partha **Sarkar**, “Tungsten Carbide based Anodes for Solid Oxide Fuel Cells”, 61<sup>st</sup> Annual Meeting of the ISE, Nice, France, September 26-October 1, 2010.

Amir Reza Hanifi, Alireza Torabi, Thomas H. **Etsell**, Partha **Sarkar**, “Effect of Electrode Position on Performance and Redox Cycling Resistance of Tubular Ceramic Fuel Cells”, 61<sup>st</sup> Annual Meeting of the ISE, Nice, France, September 26-October 1, 2010.

M. Buccheri, A. Singh and J. M. **Hill**, “Gas Composition and Carbon Deposition as a Function of Anode Design: Electrolyte- versus Anode-Supported Ni/YSZ”, 21<sup>st</sup> Canadian Symposium on Catalysis, Banff, Alberta, Canada, May 9-12, 2010.

S. Islam, A. Singh, M. Buccheri and J. M. **Hill**, “Fabrication of anode (Ni/YSZ) supported SOFC with dip coated thin electrolyte (YSZ)”, Annual General Meeting, NSERC Solid Oxide Fuel Cell Canada Strategic Research Network, Calgary, Alberta, Canada, May 26 - 29, 2010.

A. Singh, M. Buccheri, S. Islam and J. M. **Hill**, “Studies on the coke tolerance of 1% Sn-doped Ni/YSZ anodes”, Annual General Meeting, NSERC Solid Oxide Fuel Cell Canada Strategic Research Network, Calgary, Alberta, Canada, May 26 - 29, 2010.

M. Buccheri and J. M. **Hill**, “Gas Composition and Carbon Deposition as a Function of Anode Design: Electrolyte- versus Anode-Supported Ni/YSZ /Pt cells”, Annual General Meeting, NSERC Solid Oxide Fuel Cell Canada Strategic Research Network, Calgary, Alberta, Canada, May 26 - 29, 2010.

A. Vincent, J.L. **Luo**, K.T. **Chuang**, A.R. Sanger, “Mechanism of CH<sub>4</sub> and H<sub>2</sub>S Oxidation using SOFC Anode Catalyst,” 21<sup>st</sup> Canadian Symposium on Catalysis, Banff, Alberta, Canada, May 9-12, 2010.

Duane Serate, Jingli **Luo**, Karl T. **Chuang**, Alan R. Sanger, “Synthesis of New Double Perovskites Sr<sub>2</sub>MMoO<sub>6</sub> (M= Ti, V, Nb, Mo) as Sulphur-Resistant Anodes in SOFC,” 21<sup>st</sup> Canadian Symposium on Catalysis, Banff, Alberta, Canada, May 9-12, 2010.

Tanhatan Naseri, A., **Peppley**, B.A. **Pharoah**, J.G., **Karan**, K., "A Systematic Method for Optimal Design of a Micro-structured Reformer for Fuel Cell Applications", 60th Canadian Chemical Engineering Conference, Saskatoon, SK, October 24-27, 2010.

Parmar, R., Shekhawat, D., **Peppley**, B. **Karan**, K., "Kinetics and Mechanism Study for Reforming of Diesel Surrogate", 60th Canadian Chemical Engineering Conference, Saskatoon, SK, October 24-27, 2010.

Lackey, J., Champagne, P., **Peppley**, B., "Solid Oxide Fuel Cell Performance on Reformate from Wastewater Treatment Plant Biogas", 60th Canadian Chemical Engineering Conference, Saskatoon, SK, October 24-27, 2010.

Dr. Brant A. **Peppley**, "Fuel Processing for Fuel Cell Power Systems", Conference of Metallurgists (COM2010), Vancouver, B.C. October 3-6, 2010.

Mundhwa, M., **Peppley**, B.A., Thurgood, C., "Two Dimensional Model of a Catalytic Plate Reactor for Methane Steam Reforming Using Different Kinetic Mechanisms", 60th Canadian Chemical Engineering Conference, Saskatoon, SK, October 24-27, 2010.

S. Shakrawar, B.A. **Peppley**, J.G. **Pharoah**, S. **Beale**, "A Review of Stress Issues For Solid Oxide Fuel Cells", ASME International Mechanical Engineering Congress & Exhibition, Vancouver, November 2010.

Partha **Sarkar**, "Fundamentals and Advanced Applications of Electrophoretic Deposition (EPD)", Vanderbilt Institute of Nanoscale Science and Engineering, Nashville, TN, Dec 2010.

Q. Li and V. **Thangadurai**, "Recent Progress in Anode Materials for Solid Oxide Fuel Cells" 217th ECS Meeting, Vancouver, April 2010.

M. Shishkin, T. **Ziegler**, "Electrochemical reactions at the anode-electrolyte interface of solid oxide fuel cells: DFT study," 217<sup>th</sup> ECS Meeting, Vancouver April 25-30, 2010.

M. Shishkin, T. **Ziegler**, "Oxidation of hydrogen fuel at the anode/electrolyte interface of solid oxide fuel cells: DFT", 21<sup>st</sup> Canadian Symposium on Catalysis, May 9-12, 2010.

## 2009

S.B. **Beale**, D.H. Jeon, H. Roth, R. Jerome, H.-W. Choi, J.G. **Pharoah**, D. Froning, U. Reimer, S. Berns, and H. Jasak. "Design development and application of an opensource solid oxide fuel cell model", in 2009 Fuel Cell Seminar & Exposition, Palm Springs, CA, USA, 16-19 November 2009.

S. Paulson, M. Sponiar and V. I. **Birss**, "Interpreting Losses at H<sub>2</sub>S Poisoned and Recovered Ni-YSZ SOFC Anodes", SOFC Canada NSERC Network, First AGM, Calgary, AB, June 2009.

L. Deleebeeck and V. **Birss**, "Investigation of Sr-doped and Sr-free LaMn<sub>1-y</sub>Cr<sub>y</sub>O<sub>3±d</sub> Perovskites as Sulfur Tolerant SOFC Anodes", SOFC Canada NSERC Network, First AGM, Calgary, AB, June, 2009.

J. Young, V. Vedharathinam and V. I. **Birss**, "Redox Cycling of Ni-YSZ Anodes", SOFC Canada NSERC Network, AGM, Calgary, AB, June, 2009.

L. Deleebeeck and V. **Birss**, "Investigation of Sr-doped and Sr-free LaMn<sub>1-y</sub>Cr<sub>y</sub>O<sub>3±d</sub> Perovskites as Sulfur Tolerant SOFC Anodes", presentation #1455, Eleventh International Symposium Solid Oxide Fuel Cells (SOFC-XI), 216th ECS Meeting in Vienna, Austria, October 4-9, 2009.

B. Abdullah and V. **Birss**, "Liquid Phase Impregnation into Porous YSZ Anodes", SOFC Canada NSERC Network, First Annual Meeting, Calgary, AB, June, 2009.

M. Phongaksorn, M. Ismail, E. **Croiset**, S. **Corbin** and Y. **Yoo**, "Methane Internal Reforming over Ni<sub>1-x-y</sub>Cu<sub>x</sub>Mg<sub>y</sub>O-SDC Anode Material at Intermediate Temperatures", Poster presentation at the 11<sup>th</sup> International Symposium on Solid Oxide Fuel Cells (SOFC-XI), Vienna, Austria, October 2009.

A. R. Hanifi, A. Torabi, T. H. **Etsell** and P. **Sarkar**, "Development of Porous Electrolyte-Supported Tubular Micro-SOFC System", 17<sup>th</sup> International Conference on Solid State Ionics, Toronto, June 28- July 3, 2009.

A. Torabi, T. H. **Etsell** and P. **Sarkar**, "Dip Coating Fabrication Process for Micro-Tubular SOFCs", 17<sup>th</sup> International Conference on Solid State Ionics, Toronto, Canada, June 28-July 3, 2009.

Clémence Fauteux-Lefebvre, J. Blanchard, **F. Gitzhofer** and **N. Abatzoglou**, Steam Reforming of Hexadecane over a Ni-Alumina Spinel Catalyst, Proceedings of the 8<sup>th</sup> World Conference of Chemical Engineering, Montreal, Aug. 23-27, 2009.

M. Buccheri and J. M. **Hill**, “Graded SOFC anode development”, Hydrogen and fuel cells conference, Vancouver, BC, Canada, May 31- Jun 3, 2009.

M. Buccheri and J. M. **Hill**, “Graded SOFC anode development”, Annual General Meeting, NSERC Solid Oxide Fuel Cell Canada Strategic Research Network, Calgary, Alberta, Canada, Jun 24 - 27, 2009.

A. Singh, M. Buccheri, A. Schartner and J. M. **Hill**, “Developing coke tolerant anodes”, Annual General Meeting, NSERC Solid Oxide Fuel Cell Canada Strategic Research Network, Calgary, Alberta, Canada, Jun 24 - 27, 2009.

D. Monder, K. **Karan**, “Multi-scale models for sulfur poisoning in SOFC anodes”, 8<sup>th</sup> World Congress of Chemical Engineering, Montreal, Canada, August 2009.

N. Danilovic, J.L. **Luo** and K.T. **Chuang**, “Electrochemical Activity and Phase Transition of  $\text{Ce}_{0.9}\text{Sr}_{0.1}\text{VO}_3$  and  $\text{Ce}_{0.9}\text{Sr}_{0.1}\text{Cr}_{0.5}\text{V}_{0.5}\text{O}_3$  Solid Oxide Fuel Cell Anodes in  $\text{H}_2\text{S}$ ,” the 17th International Conference on Solid State Ionics, Toronto, Canada, June 28 - July 3, 2009.

N. Danilovic, A. Vincent, J.L. **Luo** and K.T. **Chuang**, “Correlation of Ex-situ Reactivity and Electrocatalytic Activity of  $\text{La}_{0.75}\text{Sr}_{0.25}\text{Cr}_{0.5}\text{X}_{0.5}\text{O}_3$  (Y=Ti, Mn, Fe, Co) SOFC Anodes,” the 17th International Conference on Solid State Ionics, Toronto, Canada, June 28 - July 3, 2009.

R. Parmar, Arunubha Kundu, Christopher Thurgood, Brant. A. **Peppley**, Kunal **Karan**, "Kinetics of Aurothermal Reforming of Tetradecane over Pt/Al<sub>2</sub>O<sub>3</sub> Catalyst in a Fixed Bed Reactor", 2009 AIChE Spring National Meeting, Tampa, FL, USA, April 26-April 30, 2009.

Q. Zhang and **A. Petric**, “Reaction Mechanism of a Cu-Mn Spinel Cathode in a Solid Oxide Fuel Cell”, presented at the Solid State Ionics 17 meeting in Toronto, June 2009.

H.-W. Choi, D. Blore, J.G. **Pharoah**, S.B. **Beale**, and D.H. Jeon, “Transport phenomena in the porous microstructures of fuel-cell electrodes”, in Proceedings of ASME 2nd Micro/Nanoscale Heat & Mass Transfer International Conference, Shanghai, China, 18-22 December 2009.

H.-W. Choi, B. Kenney, J.G. **Pharoah**, and S.B. **Beale**, “A method for determining the effective transport coefficients of composite solid oxide fuel cell electrodes”, in Hydrogen & Fuel Cells, Vancouver, BC, Canada, 3 May-3 June 2009.

Effective Transport Coefficients for Porous Microstructures in Solid Oxide Fuel Cells. Hae-Won Choi, Arganthaël Berson, Ben Kenney, **Jon G. Pharoah**, **Steven Beale**, and **Kunal Karan**. ECS Transactions - Vienna, Austria Volume 25, Solid Oxide Fuel Cells 11 (SOFC-XI), 2009

Partho **Sarkar**, Luis Yamarte, Gisele Amow, “Advanced Materials for Soldier Power Applications through Waste-Heat Recovery: Development of Porous Electrolyte-Supported Microtubular Fuel Cell”, 2009 CF/DRDC International Defence Applications of Materials Meeting, Victoria, BC, April 7-9, 2009.

Q. Li and V. **Thangadurai**, “Mo and rare earth (Sm, Gd, Y) co-doped ceria-based anode materials for IT-SOFCs”, NSERC SOFCC Strategic Research Network Annual General Meeting, Calgary, June 24-27, 2009.

Q. Li and V. **Thangadurai**, “Mo and Rare Earth-co-doped CeO<sub>2</sub> anode materials for IT-SOFCs” 17th International Meeting on Solid State Ionics, Toronto, ON, Canada, June 29-July 3, 2009.

Galea, N. M., Lo, J. M. H., Wondimagegn, T., **Ziegler**, T., “Studying SOFC Anode Activity with Density Functional Theory: Effects of Hydrogen Sulfide Adsorption and Recovery Mechanisms” Solid Oxide Fuel Cell Canada (SOFCC) Annual General Meeting, Calgary, Alberta, Canada, June 24 – 27, 2009.

## 2008

Clémence Fauteux-Lefebvre and N. **Abatzoglou**, “Diesel Reforming for the production of Fuel Cell feed gas: A Review, 20<sup>th</sup> Can. Symposium on Catalysis – “Clean Air, Climate Change and Catalysis”, Kingston, Ontario, Canada, 15 - 18 June, 2008.

Numerical Calculations on the Performance of Fuel Cells – Progress and Challenges. Keynote Lecture. **S.B. Beale**, 58th Canadian Chemical Engineering Conference Ottawa, Ontario, 19-22 October 2008.

Some Observations about Numerical Calculations on Fuel Cells, **S.B. Beale**. Keynote Lecture. 6th ASME International Fuel Cell Science, Engineering & Technology Conference Denver, Colorado, 16-18 June 2008.

S. Paulson and V. **Birss**, “Enhanced Fuel Tolerance of Ni-based Anodes”, SOFCC Toronto Workshop, Dec. 2008.

Vedasri Vedharathinam, Jason Young, and Viola **Birss**, “A possible solution to solid oxide fuel cell cracking due to Ni anode oxidation/reduction processes,” 214th ECS Meeting, October 12 - 17, 2008, Honolulu, HI.

M. Phongaksorn, E. **Croiset**, S. **Corbin**, Y. **Yoo**, J.C. Honrado, M. Sabini, “Ni<sub>1-x-y</sub>Cu<sub>x</sub>Mg<sub>y</sub> Anode for Internal Steam Reforming in Intermediate Temperature Solid Oxide Fuel Cell”, Poster presentation at the Canadian Hydrogen Association Workshop (Hydrogen Energy Research and Development in Canada: past, present and future), Quebec City, QC, May 21-22, 2008.

M. Phongaksorn, E. **Croiset**, S. **Corbin**, Y. **Yoo**, J.C. Honrado, M. Ismail, “Activity of Ni<sub>1-x-y</sub>Cu<sub>x</sub>Mg<sub>y</sub>O on Methane Steam Reforming as Alternative Material for IT-SOFCs”, Poster presentation at SOFC Canada NSERC Network Workshop, Toronto, ON, December 15, 2008.

R. Eslahpazir Esfadabadi, F. **Gitzhofer**, J. Blanchard and N. **Abatzoglou**, “Synthesis of Iron Carbide Nanoparticles by Inductively Coupled Thermal Plasma”, Colloque Plasma-Québec 2008, 22-23 May, Université de Montréal.

M. Buccheri and J. M. **Hill**, “Graded SOFC anode development”, NSERC Solid Oxide Fuel Cell Canada Strategic Research Network, Toronto, Ontario, Canada, Dec 15 -16, 2008.

N. Danilovic, K. T. **Chuang** and J. L. **Luo**, “Ni-YSZ-Ce<sub>0.9</sub>Sr<sub>0.1</sub>VO<sub>3</sub> and Ce<sub>0.7</sub>Sr<sub>0.3</sub>V<sub>0.5</sub>Cr<sub>0.5</sub>O<sub>3</sub> as Anode Materials for Sulfur Tolerant Direct Methane SOFCs,” 7<sup>th</sup> International Symposium on New Materials and Nano-Materials for Electrochemical Systems, Montreal, Quebec, Canada, June 24-27, 2008.

N. Danilovic, Z.R. Xu, K. T. **Chuang**, J. L. **Luo**, V. Alzate and J. **Hill**, “Examination of Carbon Deposition Behavior on V Based Anodes for SOFCs,” 7<sup>th</sup> International Symposium on New Materials and Nano-Materials for Electrochemical Systems, Montreal, Quebec, Canada, June 24-27, 2008.

N. Danilovic, J.L. **Luo**, K.T. **Chuang**, “Materials Degradation In SOFCs Operating On H<sub>2</sub>S Containing Fuels,” The Electrochemical Society Canadian Section, Spring Symposium, Edmonton, Alberta, Canada, May 25, 2008.

Qi Zhang and A. **Petric**, ‘Composite Cathodes Prepared by the Impregnation Method for Solid Oxide Fuel Cells’, 20th Canadian Materials Science Conference, Oral presentation, June 2008.

Q. Li, and V. **Thangadurai**, “Mo-substituted CeO<sub>2</sub> as Anode Materials for Solid Oxide Fuel Cells” 1<sup>st</sup> NSERC SOFCC Strategic Research Network Workshop, Toronto, Canada, Dec.15-16, 2008.

N.Galea, D.Knapp, E.Kadantsev, M.Shishkin, T.**Ziegler**, "Studying SOFC anode activity with DFT: Suggestions for coke reduction and the effects of hydrogen sulfide adsorption", 35th ACS National Meeting April 6-10, 2008 New Orleans, Louisiana.