



Abdoulmajid (Majid) Eslami

Eslami@ualberta.ca
M.eslami@cc.iut.ac.ir

EDUCATION

PhD in Materials Science and Engineering

2007 - 2012

University of Alberta, Edmonton, Canada

Thesis: *Near-neutral pH Stress Corrosion Cracking Initiation under Disbonded Coatings*

Supervised by: Prof. W. Chen, Prof. R. Eadie

Major Achievement: Designed a novel test setup for Near-neutral pH Stress Corrosion Cracking (SCC) assessments that has been widely accepted and used in SCC initiation and growth projects.

RELEVANT EMPLOYMENT

Corrosion Specialist and Engineer

June 2011- Jan 2013

Enbridge Pipelines Ltd.

Edmonton, Canada

- Conduct analyses in support of the corrosion programs;
- Complete validation and quality assurance analysis of corrosion in-line inspection tools;
- Participate in cross functional teams to develop new methodologies and processes;
- Ensure the continued compliance of all Pipeline Integrity processes with US and Canadian regulations, standards and best practices by supporting the continual improvement of corrosion programs processes;
- Support research related activities

Isfahan University of Science and Technology

Jan 2014 - Current

Isfahan, Iran

- Teaching Material's Science Related Courses
- Conducting Research in Field of Corrosion and Pipelines
- Failure Analysis Case Studies

***Note: Jan 2013- Jan 2014:** Parental Leave.

SELECTED PUBLICATIONS, PRESENTATIONS AND INDUSTRIAL PROJECTS

- **A. Eslami**, B. Fang, R. Kania, R. Worthingham, J. Been, R. Eadie, W. Chen, "Stress Corrosion Cracking Initiation under the Disbonded Coating of Pipeline Steel in Near-neutral pH Environment", *Corrosion Science* 52 (2010) 3750-3756.
- **A. Eslami**, R. Worthingham, R. Kania, R. Eadie, W. Chen, "Effect of CO₂ and R-ratio on Near-Neutral pH Stress Corrosion Cracking Initiation of Pipeline Steel", *Corrosion Science* 53 (2011) 2318-2327.
- **A. Eslami**, R. Worthingham, R. Kania, R. Eadie, W. Chen, "Electrochemical Processes under Coating Disbondments of Pipelines", Submitted to *Journal of Applied Electrochemistry* (2012).
- **A. Eslami**, T. Place, Review of Analysis Methods for Determining Pipeline Corrosion Growth Rates Based on In-Line Inspection Data, Banff Pipeline Workshop, April 2013, Banff, Canada.
- C. Mielie, **A. Eslami**, T. Place, Pipeline Integrity Planning using ILI Based Corrosion Growth Rates, Enbridge Pipeline's Internal Project, 2013.
- T. Place, **A. Eslami**, Corrosivity of Hydrocarbon Products, Enbridge Pipeline's Internal Project, 2013.
- **A. Eslami**, Pipeline Corrosion Rates at Different Pipe Angles, Corrosion Conference, Iran, 2014.
- S. Rastegari, H. Arabi, M. R. Aboutalebi, and **A. Eslami**. "Materials Behaviour and Performance-A Study on the Microstructural Changes of Cr-Modified Aluminide Coatings on a Nickel-Based Superalloy During Hot Corrosion." *Canadian Metallurgical Quarterly* 47, no. 2 (2008): 223.
- **A. Eslami**, W. Chen, R. Worthingham, R. Kania & J. Been, (2010, January 1). Effect Of CO₂ On Near-Neutral Ph Stress Corrosion Cracking Initiation Of Pipeline Steel. NACE International.
- **A. Eslami**, M. Marvasti, W. Chen, et al. The Role of Electrochemical Conditions in Near-Neutral pH SCC Initiation Mechanism(s). ASME. International Pipeline Conference, *2010 8th International Pipeline Conference, Volume 1* (2010):315-321.
- AT. Egbewande, **A. Eslami**, W. Chen, R. Worthingham, R. Kania, G. VanBoven. Growth of Surface-Type Stress Corrosion Cracks in Near-Neutral pH Environments Under Disbonded Coatings. ASME. International Pipeline Conference, *2010 8th International Pipeline Conference, Volume 1* (1):653-662.
- **A. Eslami**, T. Place, S. McDonnell, C. Ukiwe, Q. You. Landscape Investigation on External Corrosion and SCC of a Tape Coated Enbridge Pipeline. ASME. International Pipeline Conference, *Volume 2: Pipeline Integrity Management*():533-540.
- K. Chevil, **A. Eslami**, W. Chen, et al. Developing Cathodic Protection Based on Disbondment Geometry. ASME. International Pipeline Conference, *Volume 2: Pipeline Integrity Management* ():583-590.
- **A. Eslami**, R. Kania, B. Worthingham, G.V. Boven, R. Eadie, W. Chen, Corrosion of X-65 Pipeline Steel Under a Simulated Cathodic Protection Shielding Coating Disbondment, *CORROSION*. 2013;69(11):1103-1110.
- HR. Vanaei, **A. Eslami**, and A. Egbewande. "A review on pipeline corrosion, in-line inspection (ILI), and corrosion growth rate models." *International Journal of Pressure Vessels and Piping* 149 (2017): 43-54.
- Ghalambaz, M., M. Abdollahi, **A. Eslami**, and A. Bahrami. "A case study on failure of AISI 347H stabilized stainless steel pipe in a petrochemical plant." *Case studies in engineering failure analysis* 9 (2017): 52-62.

- Sabooni, S., Rashtchi, H., **Eslami, A.**, Karimzadeh, F., Enayati, M. H., Raeissi, K., ... & Imani, R. F. (2017). Dependence of corrosion properties of AISI 304L stainless steel on the austenite grain size. *International Journal of Materials Research*, 108(7), 552-559.
- Zohoori-Shoar, V., **A. Eslami**, F. Karimzadeh, and M. Abbasi-Baharanchi. "Resistance spot welding of ultrafine grained/nanostructured Al 6061 alloy produced by cryorolling process and evaluation of weldment properties." *Journal of Manufacturing Processes* 26 (2017): 84-93.
- Riazi, Hamidreza, Fakhreddin Ashrafizadeh, and **Abdoulmajid Eslami**. "Effect of plasma nitriding parameters on corrosion performance of 17-4 PH stainless steel." *Canadian Metallurgical Quarterly* 56, no. 3 (2017): 322-331.
- Dehnavi, F., **A. Eslami**, and F. Ashrafizadeh. "A case study on failure of superheater tubes in an industrial power plant." *Engineering Failure Analysis* 80 (2017): 368-377.
- Panahi, H., **A. Eslami**, M. A. Golozar, A. Ashrafi Laleh, M. Aryanpur, and M. Mazarei. "Failure analysis of type 304 stainless steel amine exchanger sheets in a gas sweetening plant." *Case studies in engineering failure analysis* 9 (2017): 87-98.
- Panahi, H., **A. Eslami**, and M. A. Golozar. "Corrosion and stress corrosion cracking initiation of grade 304 and 316 stainless steels in activated Methyl Diethanol Amine (aMDEA) solution." *Journal of Natural Gas Science and Engineering* 55 (2018): 106-112.
- Khouzani, M. Kiani, A. Bahrami, and **A. Eslami**. "Metallurgical aspects of failure in a broken femoral HIP prosthesis." *Engineering Failure Analysis* 90 (2018): 168-178.

SELECTED AWARDS

2010: Mary Louise Imrie Graduate Student Award, University of Alberta, Canada

2010: IPC 2010, Student Paper Competition, Selected Paper

TECHNICAL ABILITIES

- Conducting Materials characterization tests (ASTM and NACE Standards)
- Proficient in technical report writing; prepared several technical reports for industry, published journal papers and presented conference papers

References

- **Trevor Palce, Enbridge Pipelines, Cell: 780 405 3545 , E-mail: Trevor.Palce@Enbridge.com**
- **Reg Eadie, University of Alberta, Cell: 780 492 2858 , E-mail: physmetprof@gmail.com**
- **Weixing Chen, Cell: 780 4927 706 , E-mail: Weixing.chen@ualberta.ca**