

NAZMUL RAHMANI

Education

Ph.D. in Chemical Engineering, University of Alberta, Canada 2004
M.S. in Chemical Engineering, University of North Dakota, USA 1998
B.S. in Chemical Engineering, Bangladesh University of Engineering & Technology, 1995

Research Interest

Reservoir fluid thermodynamics phase behavior
Flow assurance and production chemistry
Pipeline thermo-hydraulic modelling
Hydraulic fracturing fluids
Bioremediation of industrial wastewater

Professional Experience

Van Mooney Professor of Practice, Department of Chemical & Natural Gas Engineering, Texas A&M University - Kingsville, 2016 – todate
Senior Flow assurance Specialist, Genesis Oil & Gas Consultants Limited – Technip USA, Houston, TX 2013-2015
Development Engineer, Stimulation Fluids Engineering Group - Schlumberger Technologies Limited, Sugarland, TX 2011-2013
Senior Research Engineer, Subsurface Team, Research & Technology (R&T) Group, Kuwait Oil Company, 2010-2011
Research Project Manager, DBR Technology Center - Schlumberger Canada Limited, Edmonton, AB 2005-2009
NSERC Postdoctoral Research Fellow, CANMET Energy Technology Centre - Natural Resources Canada, Devon, AB 2004-2005

Research Proposals

Alexander, M., Amaya, J., Rahmani, N., Lopez, A., TAMUK undergraduate research program titled “REU Site: STUCHERE—South Texas Undergraduate Chemical Engineering Research Experience”, proposal submitted to NSF, Fall 2019.
Rahmani, N., TAMUK Undergraduate research proposal for TCUR, “Texas Permian Basin Gas Gathering Pipeline System - Fluid Flow Dynamics Assessment”, Fall 2017.

Selected Publications

Peer-reviewed journal manuscripts

Rahmani, N.H.G., Gao, J., Ibrahim, M.N., Bou-Mikael, S., Al-Matar, B.S., Ruhaimani, F. “Core Flood Investigation into Asphaltene Deposition Tendencies in the Marrat Reservoir SEK”, SPE 121414, Paper presented at the SPE Intl Symp on Oilfield Chemistry, Woodlands, Texas, 2009.
Rahmani Nazmul, Tadeusz Dabros, and Jacob H. Masliyah, “Fractal Structure of Asphaltene Aggregates”, Journal of Colloid and Interface Science, 285, 599-608, 2005.
Rahmani Nazmul, Tadeusz Dabros, and Jacob H. Masliyah, “Settling Properties of Asphaltene Aggregates”, Energy & Fuels, 19, 1099-1108, 2005.
Rahmani Nazmul, Tadeusz Dabros, and Jacob H. Masliyah, “On-line Optical Monitoring of Asphaltene Aggregation”, Industrial & Engineering Chemistry Res, 44, 75-84, 2005
Rahmani Nazmul, Tadeusz Dabros, Jacob H. Masliyah, “Evolution of Asphaltene Floc Size Distribution in Organic Solvents under Shear”, Chemical Eng Sci, 59, 685-97, 2004.

Rahmani Nazmul, Tadeusz Dabros, Jacob H. Masliyah, "Characterization of Asphaltenes Aggregation and Fragmentation in a Shear Field", *AIChE Journal*, 49, 1645, 2003.

Rahmani GNH and Sternberg SPK, "Bioremoval of lead from water using Lemna Minor", *Bioresource Technology*, 70(3), 225-230, 1999

Conferences and Presentations

Kaushik Manikonda, Rashid Hasan, Nazmul Rahmani, Aziz Rahman and Omer Kaldirim, "Estimating Swelling in Oil-Based Mud Due to Gas Kick Dissolution", Abstract submitted at the 39th International Conference on Ocean, Offshore and Arctic Engineering (OMAE) in Fort Lauderdale, USA, 2020

Abu Jamaluddin and Nazmul Rahmani, "Asphaltene Science and Flow Assurance", 4-day classroom training course for Petronas upstream process engineers to elucidate the impact of asphaltenes in flow assurance during oil production from reservoir through midstream, Kuala Lumpur, Malaysia, 2018

"Laboratory PVT/EOS and SCAL Studies for CO₂-EOR Flooding", Invited Technical Speaker in SPE ATW-CO₂ EOR Projects: Opportunities & Challenges in Middle East, Abu Dhabi UAE, 2010

Treinen, R., Rahmani, N., Taylor, S. "Uncertainty in Laboratory Measurements of Crude Oil Viscosity", SPE International Thermal Operations & Heavy Oil Symp-Calgary, 2008.

Rahmani, N., Gao, J., and Zougari, M. "Crystallization Kinetics of Waxy Crude Oils", the 8th Intl phase behav conference, Pau, France, 2007

Rahmani, N., Gao, J., Akbarzadeh, K., and Norpiah, R. "Waxy Crude Oil Properties and Flow Assurance Aspects on Subsea Production Design", 5th PetroMin Deepwater & Subsea Technology Conference & Exhibition, Kuala Lumpur, Malaysia, 2007

Rahmani, N.H.G., Long, Y., Dabros, T., and Hamza, H. "Settling Properties of Emulsified water droplets (WD), dispersed solids (DS), and precipitated asphaltenes (PA) aggregates in bitumen froth treatment", CANMET Western Research Centre, Research Progress Report, CWRC 05-18, May 2005

Rahmani, N.H.G., Dabros, T., and Masliyah, J.H. 'A Population Balance for Shear-Induced Flocculation of Asphaltene Particles in Organic Solvents' Presented at 51st Canadian Chemical Engineering Conference, Halifax, October 2001

Rahmani, GNH and Sternberg, SPK, 'In-situ Bioremediation of Lead and Cadmium Using Aquatic Plant', Presented at AIChE National Conference, Fort Collins, Colorado, USA, 1998

Professional Affiliations

Society of Petroleum Engineers (SPE)

American Institute of Chemical Engineers (AIChE)

Honors and Awards

"Performed by Schlumberger" Award Nominee, 2008

Research Fellowship in Canadian Government laboratory, NSERC, 2004 – 2005

Faculty of Graduate Studies Scholarship & Bursary, U of Alberta, 1999 – 2003

BUET Dean's List Award, 1990; BUET Merit Scholarship, 1991-1994

Contact Information

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