

Mehran Pooladi-Darvish, Ph.D., P.Eng.

President, MPD Reservoir Engineers Ltd.

Adjunct Professor, University of Calgary

ACADEMIC EXPERIENCE

Education

B.Sc. Chemical Engineering Amir Kabir University of Technology, Tehran, Iran	1989
M.Sc. Chemical and Petroleum Engineering University of Petroleum Technology, Ahwaz, Iran	1992
Ph.D. Petroleum Engineering University of Alberta, Edmonton, Canada	1995

AWARDS, DISTINCTIONS AND FELLOWSHIPS

- Distinguished Lecturer of the Society of Petroleum Engineers on Geological Storage of CO₂ 2012 - 13
- Expert Panel on Gas Hydrates of the Council of Canadian Academies 2007 - 2008
Member (by invitation)
The role the Panel was to write a report for the Government of Canada on potential of gas hydrates as a sustainable and secure source of energy in Canada. (Grace, J., Collett, T., Colwell, F., Englezos, P., Jones, E., Mansell, R., Meekison,, J.P., Ommer, R., **Pooladi-Darvish, M.**, Riedel, M., Ripmeester, J., Shipp, C., Willoughby, E., Energy From Gas Hydrates: Assessing the Opportunities and challenges for Canada - Expert Panel on Gas Hydrates, Report prepared for the Government of Canada, Minister of Natural Resources, Ottawa, Canada, published by Canadian Council of Academies, September 2008.)
- 2007 Best paper presented at the 2006 CIPC Conference, the Second Runner Up Award, (For paper entitled "Use of PITA for Estimating Reservoir Parameters")
- 2006 Best Paper published in the *Journal of Canadian Petroleum Technology (JCPT)* 2005 Award (For paper entitled "Simulation of Depressurization for Gas Production from Gas Hydrates Reservoirs")
- Journal of Petroleum Technology (JPT): **Distinguished Author** 2004
- The Society of Petroleum Engineers: **Outstanding Technical Editor** 2004
- Department of Chemical and Petroleum Engineering: **Teaching Excellence Award** 2003 – 2004
- Students' Union: **Teaching Excellence Award** 2001 - 2002
- Chemical and Oil and Gas Engineering: **Professor of the Year** 2001 - 2002
- 2001 Best Paper published in the *Journal of Canadian Petroleum Technology (JCPT)* 2000 Award (For paper entitled Experiments and Modelling of Water Injection in Water-Wet Fractured Media)
- CIM International: **Student Paper Competition Award** 1995
- Gulf Canada: **Scholarship in Hydrocarbon Development** 1993 and 1994

WORK EXPERIENCE

MPD Reservoir Engineers Ltd, Calgary, Alberta, Canada

President

July 2015 – Present

Prepared Expert Witness Report for AER Hearings in relation to Bearspaw Petroleum Ltd. Pool Re-designation Application (Bearspaw vs. Harvest et al.) Jan. 2016 – April 2016

Evaluated of a series of offshore producing and discovered reservoirs as well as exploratory leads in the Canadian East Coast for Pieridae Energy Oct. 2015 – Dec. 2015

Fekete Associates and IHS, Calgary, Alberta, Canada

Vice President Consulting – Reservoir Solutions at IHS

April 2013 – June 2015

Vice-President, Engineering (Fekete Associates Inc)

July, 1998 – April 2013

Reservoir engineering studies (some 100 of them) in areas of (i) Reservoir Development and Optimization: such as WAG, CO₂-EOR, thermal recovery, and waterflood design and optimization, (ii) Unconventional reservoirs such as forecasting condensate production in shale (rich) gas reservoirs and tight oil optimization, (iii) Sequestration and Acid Gas Disposal: such as reservoir engineering and modeling of CO₂ storage in aquifers in the Middle East and in Alberta and post-mortems on five acid gas disposal projects that either unexpectedly pressured up or experienced unexpected acid gas breakthrough, (iv) Reservoir Characterization: such as multi-well interference analysis for characterization of the size and permeability of “top water” and “lean zones” in SAGD operations, or connectivity between gas storage pools, and (v) Experimental Schemes: such as natural-gas hydrate reservoirs and SO₂ disposal. Uncertainty assessment is included in the workflow, when necessary through use of assisted history matching tools.

Led a number of R&D projects, including Rate-Transient-Analysis Software, special well testing applications for perforation-inflow test and formation testing while underbalanced-drilling, numerical models for coalbed methane, RTA and special wellbore models.

Expert witness at regulatory hearings and legal cases

- 2001 hearings of the Alberta Energy Resources and Conservation Board (ERCB) on the topic of Gas-over-Bitumen (Franco-Nevada vs. Anderson)
- May 2013 hearings of the Alberta Energy Resources and Conservation Board (ERCB) on the topic of crossflow between Doig and Halfway (Surge vs. ConocoPhillips/CNRL)
- October 2013 Macondo/Deep Water Horizon court proceeding in New Orleans, Estimate of Cumulative Volume of Oil Released from the MC252 Macondo Well (U.S. vs. BP Exploration & Production Inc. et al.)

University of Calgary

Adjunct Professor

2011 - present

Assistant Professor, Associate Professor and Professor

1997 - 2011

Offered undergraduate and graduate courses in reservoir engineering, well-testing and mathematical modeling of reservoirs, supervised 18 M.Sc. and Ph.D. students in experimental and mathematical modeling multi-phase flow in porous media including of cold production of heavy oil,

gas production from hydrate reservoirs, imbibition and gravity drainage in naturally fractured reservoirs, CO₂ storage in aquifers, CO₂ storage as hydrates

International Hydrate Activities

Senior Researcher 2003

Was invited to join the Mallik Research Team who performed modelling of gas production from gas hydrates. In addition to our group, there were two other modelling groups in this team, one from University of Tokyo/Japan Oil Engineering and one from Lawrence Berkeley National Laboratory, 2003

Petrotech Solutions Inc, Chicago, Illinois, USA

Consultant 2003

Consultant on "SAGD Studies," September 2003.

Epic Consulting Services Limited, Calgary, Alberta, Canada

Consultant 1999

Conducted a two month project titled "A Simulation Study on Behaviour of Heavy Oil Reservoirs Overlain by a Gas Cap."

Reservoir Engineering Research Institute (RERI), Palo Alto, CA, USA

Post-doctoral Research Engineer 1995 - 1997

- Performed experimental and modelling research on solution gas drive in heavy oil reservoirs and imbibition in fractured porous media
- Published the three related papers

National Iranian Oil Company (NIOC), Ahwaz, Iran

Reservoir Engineer 1990 - 1992

- Implemented various reservoir engineering techniques for evaluating two of the Iranian reservoirs
- Performed a research on non-isothermal gravity drainage, and presented the results to the Heavy Oil Committee

PROFESSIONAL AFFILIATIONS AND SERVICE

- Association of Professional Engineers and Geoscientists of Alberta (APEGA), Member
- Society of Petroleum Engineers (SPE)

SELECTED INDUSTRY COURSES

- PDVSA Research Centre, Cold Production of Heavy Oil, Caracas, Venezuela, Oct. 2000
- Canadian Occidental Petroleum Limited, Calgary, In House Short Course of Cold Production of Heavy Oil, January 8, 1999.

PEER REVIEWED PUBLICATIONS

64. *Tabatabaie, S. H., Pooladi-Darvish, M. , Mattar, L. and Tavallali, M. 2016: "Analytical Modeling of Linear Flow in Pressure-Sensitive Formations". Journal of SPE Reservoir Evaluation & Engineering-Formation Evaluation. SPE-181755-PA. <http://dx.doi.org/10.2118/181755-PA>. (in press; posted 26 July 2016)
63. Tabatabaie, S. H. and Pooladi-Darvish, M. 2016. Multiphase Linear Flow in Tight Oil Reservoirs. SPE Reservoir Evaluation & Engineering-Reservoir Engineering. SPE-180932-PA. <http://dx.doi.org/10.2118/180932-PA>. (in press; posted 29 June 2016).
62. Shahbazi, A., and **Pooladi-Darvish, M.**: "Behavior of Depressurization in Type III Hydrate Reservoirs" Society of Petroleum Engineers Journal. (April 2014) Vol. 19 (2), pp. 191 - 205 doi:10.2118/137047-PA
61. Etmnan, S.R., **Pooladi-Darvish, M.**, Maini, B.B., and Chen, Z.: "Modeling the interface resistance in low soluble gaseous solvents-heavy oil systems," Fuel, Vol. 105 (2013), pp. 672-687 DOI: 10.1016/j.fuel.2012.08.048
60. Zeidouni, M., and **Pooladi-Darvish, M.**: ""Leakage Characterization through Above-Zone Pressure Monitoring: 1. Inversion Approach" Journal of Petroleum Science and Engineering, Vol. 98-99 (November 2012), pp. 95-106."
59. Zeidouni, M., and **Pooladi-Darvish, M.**: "Leakage Characterization through Above-Zone Pressure Monitoring: 2. Design Considerations with Application to CO₂ Storage in Saline Aquifers" Journal of Petroleum Science and Engineering, Vol. 98-99 (November 2012), pp. 69-82.
58. Shahbazi, A., and **Pooladi-Darvish, M.** "Application of Operator Splitting Technique in Numerical Simulation of Gas-Hydrate Reservoirs" Society of Petroleum Engineers Journal (July 2013). Vol. 18 (6), pp. 1,067 - 1,079 doi:10.2118/141032-PA
57. Qanbari, F., **Pooladi-Darvish, M.**, Tabatabaie, S.H., and Gerami, S.: "Disposal as hydrate in ocean sediments"; Journal of Natural Gas Science and Engineering; Vol. 8 (September 2012), pp. 139 - 149, doi: 10.1016/j.jngse.2011.10.006
56. Tabatabaie, H., and **Pooladi-Darvish, M.**: "Hydrate Decomposition and Its Material Balance in a Volumetric Tilted Hydrate-Capped Gas Reservoir by Method of Depressurization" SPE Reservoir Engineering and Evaluation (August 2012) Vol. 15 (4) pp. 410 – 422. doi:10.2118/137610-PA
55. Zatsepina, O., and **Pooladi-Darvish, M.**: "CO₂ Storage as Hydrate in Depleted Gas Reservoirs" SPE Reservoir Evaluation & Engineering-Reservoir Engineering (February 2012) Vol. 15, No. 2, pp. 98 – 108. doi:10.2118/137313-PA
54. Zatsepina, O., **Pooladi-Darvish, M.** and Hong, H.: "Behaviour of Gas Production from Type III Hydrate Reservoirs," Journal of Natural Gas Science and Engineering, (July 2011), Vol. 3 (3), pp. 496 - 504, doi:10.1016/j.jngse.2011.05.005
53. Ghaderi, S.M., Tabatabaie, S.H., Hassanzadeh, H., and **Pooladi-Darvish, M.**: "Estimation of concentration-dependent diffusion coefficient in pressure-decay experiment of heavy oils and bitumen" in Fluid Phase Equilibria, (June 2011), Vol. 305, No. 2, pp. 132-144. doi: 10.1016/j.fluid.2011.03.010
52. Zatsepina, O.Y., and **Pooladi-Darvish, M.**: "Storage of CO₂ Hydrate in Shallow Gas Reservoirs – Pre- and Post-Injection Periods", in Journal of Greenhouse Gases: Science and Technology, (May 2011) Vol. 1, pp.223-236.

51. Moridis, G.J., Collett, T.S., **Pooladi-Darvish, M.**, Hancock, S. Santamarina, C., Boswell, R., Kneafsey, T., Rutqvist J., Kowalsky, M., Reagan, M.T., Sloan, E.D., Sum A.K., and Koh, C.: "Challenges, Uncertainties and Issues Facing Gas Production From Hydrate Deposits in Geologic Systems" *SPE Reservoir Evaluation & Engineering*, Volume 14, Number 1, February 2011, pp. 76-112
50. **Pooladi-Darvish, M.**, Bachu, S., and Hong, H.: "Pressure build-up and decay in acid gas injection operations in reefs in the Zama field, Canada, and implications for CO₂ storage", in *Oil & Gas Science and Technology-Revue de l'IFP*, 66 (2011), No. 1, pp. 67 – 80.
49. **Pooladi-Darvish, M.** and Hong, H.: "Use of MDT Results over a Hydrate Interval at Mt. Elbert for Long Term Production Forecast – Implications of Uncertainties," in *Journal of Marine and Petroleum Geology* (Elsevier), Vol. 28 (2), February 2011, pp. 535 – 545, doi:10.1016/j.marpetgeo.2010.01.006.
48. Anderson, B., Kurihara, M., White, M., Wilson, S.J., and **Pooladi-Darvish, M.**: "Regional Long-term Production Modelling from a Single Well Test, Mount Albert Gas Hydrate Stratigraphic Test Well" in *Journal of Marine and Petroleum Geology* (Elsevier), Vol. 28 (2), February 2011, pp. 493 – 501.
47. Saeedi, M. and **Pooladi-Darvish, M.**: "Revisiting the Drainage Saturation Functions by Centrifuge Method Using a Forward-Backward Modeling Scheme," in *Transport in Porous Media (TiPM) Journal*, 86 (1), (January 2011), 49 – 71. 10.1007/s11242-010-9605-9.
46. Hassanzadeh, H., Abedi, J., and **Pooladi-Darvish, M.**: "Equivalent Rate Constant for Numerical Simulation of Linear Convection-Diffusion-Reaction," *Journal of Canadian Petroleum Technology (JCPT)* Vol 49, No. 4 (April 2010), pp. 51 – 57.
45. Rostami, B., Kharrat, R., **Pooladi-Darvish, M.** and Ghotbi, C.: "Identification of Fluid Dynamics in Forced Gravity Drainage Using Dimensionless Groups," *Transport in Porous Media* DOI: 10.1007/s11242-009-9478-ypp. Vol. 83, Issue 3, 725 – 740.
44. Hassanzadeh, H., **Pooladi-Darvish, M.** and Atabay, S.: "Shape factors in the drawdown solution for welltesting of dual porosity systems," *Advanced in Water Resources*, 32 (11) pp 1652-1663.
43. Gerami, S. and **Pooladi-Darvish, M.**: "An Early-Time Model for Drawdown Testing of a Hydrate-Capped Gas Reservoir", *SPE Reservoir Evaluation and Engineering*, Volume 12 (2009) No. 4, pp 596 - 609.
42. Heidari, M., **Pooladi-Darvish, M.**, Azaeiz, J., and Maini, B.: "Effect of Drainage Height and Permeability on SAGD Performance" *Journal of Petroleum Science and Technology* Vol. 68 (2009), pp 99–106
41. Ewens, S. and **Pooladi-Darvish, M.**: "When does a Longer Shut-in Lead to a Larger Radius of Investigation?", *Journal of Petroleum Science and Technology* Vol. 68, Issues 3-4 (October 2009) pp. 187 – 196.
40. Zeidouni, M.; **Pooladi-Darvish, M.**, and Keith, D.: "Analytical Solution to Evaluate Salt Precipitation during CO₂ Injection in Saline Aquifers, *International Journal of Greenhouse Gas Control*, Vol 3. No. 5 (September 2009) pp. 600 – 611.
39. **Pooladi-Darvish, M.**, Hong, H., Stocker, R., Bennion, B., and Bachu, S.: "Chromatographic Partitioning of H₂S and CO₂ in Acid Gas Disposal," *Journal of Canadian Petroleum Technology (JCPT)* Vol 48, No. 10. (October 2009) pp. 52 – 57.

38. Tabatabaie, S.H., and **Pooladi-Darvish, M.**: “Analytical Solutions for Gas Production from Hydrate Reservoirs Underlain with Free Gas,” in *Journal of Natural Gas Science and Engineering*, Vol. 1, No. 1-2, (July 2009) pp. 46-57, doi 10.1016/j.jngse.2003.03.006
37. Shahvali, M. and **Pooladi-Darvish, M.**: “Dynamic Modelling of Solution-Gas Drive in Heavy Oil,” in press in *Journal of Canadian Petroleum Technology (JCPT)* Vol. 48, No. 12. (December 2009). pp 39 – 46.
36. Sheikha, H. and **Pooladi-Darvish, M.**: “The Effect of Pressure Decline Rate and Pressure Gradient on the Behaviour of Solution Gas Drive in Heavy Oils,” *SPE Reservoir Evaluation and Engineering*, Volume 12 (June 2009) No. 3, pp 390 – 398.
35. Hassanzadeh, H, **Pooladi-Darvish, M.**, and Abedi, A.: “Improving accuracy of coarse grid numerical solution of solid-solid reactions by Taylor series expansion of the reaction term,” *Mathematical Problems in Engineering*, Volume 2009, Article ID 696253, 13 pages doi:10.1155/2009/696253.
34. Hassanzadeh, H., **Pooladi-Darvish, M.**, and Keith. D.W.: “Accelerating CO₂ Dissolution in Saline Aquifers for Geological Storage – Mechanistic and Sensitivity Studies,” *Energy and Fuels* Vol. 23, (April 2009), pp. 3328–3336, DOI:10.1021/ef900125m.
33. Bachu, S., **Pooladi-Darvish, M.**, and Hong, H.: “Chromatographic partitioning of impurities contained in a CO₂ stream injected into a deep saline aquifer: Part 2 - effects of flow conditions,” *International Journal of Greenhouse Gas Control* doi: 10.1016/j.ijggc.2009.01.002 Vol. 3, No. 4 (July 2009) 468 – 473.
32. Hassanzadeh, H., **Pooladi-Darvish, M.**, and Keith. D.W.: “The Effect of Natural Flow of Aquifers and Associated Dispersion on the Onset of Buoyancy-Driven Convection in a Saturated Porous Medium,” in *American Institute of Chemical Engineers’ Journal (AIChE)* Vol. 55, No. 2 (February 2009) pp. 475 – 485.
31. Hassanzadeh, H, Abedi, A., and **Pooladi-Darvish, M.**: “A comparative study of flux-limiting methods for numerical simulation of gas-solid reactions with Arrhenius type reaction kinetics,” *Computers and Chemical Engineering Journal* Vol. 33 No. 1. (January 2009) 133 – 143.
30. Rahman, A., **Pooladi-Darvish, M.**, Santo, M. and Mattar, L.: “Use of PITA for Estimating Reservoir Parameters,” *Journal of Canadian Petroleum Technology (JCPT)*, Vol. 47, No. 8 (August 2008) pp. 24 – 33, winner of the “Best paper presented at the 2006 CIPC Conference, the Second Runner Up Award”.
29. Gerami, S., **Pooladi-Darvish, M.**, Morad, K. and Mattar, L.: “Type Curves for Dry CBM Reservoirs with Equilibrium Desorption,” in *Journal of Canadian Petroleum Technology (JCPT)*, Vol. 47, No. 7 (July 2008) pp 48 – 56.
28. Farshidi, S., *Yu, F., **Pooladi-Darvish, M.**, and Mattar, L.: “Permeability Estimation from Inflow Data during Underbalanced Drilling”, in *Journal of Canadian Petroleum Technology (JCPT)*, Vol 47, No. 6 (June 2008) pp 56 – 63.
27. Hassanzadeh, H., **Pooladi-Darvish, M.**, Elsharkawy, A., Keith. D.W. and Leonenko, Y.: “Predicting PVT Data for CO₂-Brine Mixtures for Black-Oil Simulation of CO₂ Geological Storage,” in *International Journal of Greenhouse Gas Control* Vol. 2 No. 1 (January 2008) 65 – 77.

26. *Gerami, S. and **Pooladi-Darvish, M.**: “Effect of Hydrates on Sustaining Reservoir Pressure in a Hydrate-Capped Gas Reservoir”, *Journal of Canadian Petroleum Technology (JCPT)*, Vol. 46, No. 10 (October 2007) pp 39 – 48.
25. Hassanzadeh H. and **Pooladi-Darvish, M.**: “Comparison of Different Numerical Laplace Inversion Methods for Engineering Applications,” *Journal of Applied Mathematics and Computation* Vol. 189 No. 2 (June 2007) pp 1966 – 1981.
24. Hassanzadeh, H., **Pooladi-Darvish, M.** and Keith, W.D.: “Scaling Behavior of Convective Mixing, with Application to Geological Storage of CO₂,” *American Institute of Chemical Engineers’ Journal (AIChE)*, Vol. 53 (May 2007) pp. 1121 - 1131.
23. Gerami, S. and **Pooladi-Darvish, M.**: “Predicting Gas Generation by Depressurization of Hydrates where the Sharp-Interface Assumption is not Valid”, *Journal of Petroleum Science and Engineering*, Vol. 56, No. 1 – 3 (March 2007) pp. 146 – 164.
22. Sheikha, H., Mehrotra, A., and **Pooladi-Darvish, M.**: “An Inverse Solution Methodology for Estimating the Diffusion Coefficient of Gases in Athabasca Bitumen from Pressure-Decay Data,” *Journal of Petroleum Science and Engineering*, Vol. 53 (2006) pp. 189 – 202.
21. Hassanzadeh, H., **Pooladi-Darvish, M.** and Keith, W.D.: “Stability of a Fluid in a Saturated Horizontal Porous Layer: Effect on Nonlinear Concentration Profile, Initial and Boundary Conditions,” *Transport in Porous Media*, 65 (2006) pp. 193 – 211.
20. Hassanzadeh, H. and **Pooladi-Darvish, M.**: “Effects of Fracture Boundary Conditions on Matrix-Fracture Transfer Shape factor,” *Transport in Porous Media*, 64 (2006) pp. 51 – 71.
19. Hong, H. and **Pooladi-Darvish, M.**: “Simulation of Depressurization for Gas Production from Gas Hydrates Reservoirs,” *Journal of Canadian Petroleum Technology (JCPT)*, Vol. 44, November 2005, pp. 39 – 46. Winner of the “S.M. Farouq Ali Best Paper Published in the JCPT 2005 Award”.
18. Hassanzadeh H. and **Pooladi-Darvish, M.**, Keith, D.W.: “Modelling Convective Mixing in CO₂ Sequestration” *Journal of Canadian Petroleum Technology (JCPT)*, Vol. 44 (October 2005) pp. 43 – 51.
17. Rostami, B., Kharrat, R., Ghotbi, S., and **Pooladi-Darvish, M.**: “Dependency of Relative Permeability on Dominated Flow Regimes under Gas Gravity Assisted Flow,” *Energy Resources*, Vol. 27, No. 10 (October 2005)
16. Sheikha, H., **Pooladi-Darvish, M.** and Mehrotra, A.: “Development of Graphical Methods for Estimating the Diffusivity Coefficient of Gases in Bitumen from Pressure Decay Data,” *Energy & Fuels* Vol. 19 (June 2005) pp. 2041 – 2049
15. Shokoya, O. S., Mehta, R.G., Moore, R.G., **Pooladi-Darvish, M.**, Chakma, A.: “The Mechanism of Flue Gas Injection for Enhanced Light Oil Recovery,” *Journal of Energy Resources Technology*, ASME Petroleum Division Transactions, Vol. 126 (June 2004) pp. 119 – 124.
14. Javadpour, F. and **Pooladi-Darvish, M.**: “Network Modelling of Gas Relative Permeability in Heavy Oil,” *Journal of Canadian Petroleum Technology (JCPT)*, Vol. 43, (April 2004) pp. 23 – 30.
13. Talabi, O. and **Pooladi-Darvish, M.**: “A Simulator for Solution-Gas Drive in Heavy Oil, *Journal of Canadian Petroleum Technology (JCPT)* Vol. 43, (April 2004), pp. 31 – 38.
12. Javadpour, F., **Pooladi-Darvish, M.**, Jeje, A., and Shen, L.C.: “Effect of Transient Temperature on MWD Resistivity Logs,” *Petrophysics*, Vol. 44 (November-December 2003), no. 6, pp. 435 – 445.

11. Hong H., **Pooladi-Darvish, M.**, and Bishnoi, P.R.: "Analytical Modelling of Gas Production from Hydrates in Porous Media," *Journal of Canadian Petroleum Technology (JCPT)* Vol. 42, November 2003, (11) pp. 45 – 56.
10. Shokoya, O. S., Mehta, R.G., Moore, R.G., **Pooladi-Darvish, M.**, Chakma, A. "Does Miscibility of In Situ Generated Flue Gas with Light Crude Oils Contribute to Its Recovery Under High Pressure Air Injection?," *Journal of Canadian Petroleum Technology (JCPT)* Vol. 41, October 2002, (10) pp. 58 – 67.
9. Kumar, R., **Pooladi-Darvish, M.**, and Okazawa, T.: "Effect of Depletion Rate on Gas Mobility and Solution Gas Drive in Heavy Oil," *Society of Petroleum Engineers Journal (SPEJ)*, June 2002, pp. 213 – 220.
8. **Pooladi-Darvish, M.** and Mattar, L.: "SAGD Operations in the Presence of overlying Gas Cap and Water Layer – Effect of Shale Layers" *Journal of Canadian Petroleum Technology (JCPT)*, Vol. 41, June 2002, (6) pp. 40 – 51.
7. Kumar R., and **Pooladi-Darvish, M.**: "Solution Gas Drive in Heavy Oil: Field Prediction and Sensitivity Studies Using Low Gas Relative Permeability," *Journal of Canadian Petroleum Technology (JCPT)*, Vol. 41, March 2002, (3) pp. 26 – 32.
6. Kumar, R. and **Pooladi-Darvish, M.**: "Effect of Viscosity and Diffusion Coefficient in the Kinetics of Bubble Growth in Solution Gas Drive in Heavy Oil Reservoirs," published in *Journal of Canadian Petroleum Technology (JCPT)*, Vol. 40, March 2001, (3) pp. 30– 37.
5. **Pooladi-Darvish, M.** and Firoozabadi, A.: "Co-Current and Counter-Current Imbibition in a Water-Wet Matrix Block," *Society of Petroleum Engineers Journal (SPEJ)*, Vol. 5, March 2000, (1) pp. 3 – 11.
4. **Pooladi-Darvish, M.** and Firoozabadi, A.: "Experiments and Modelling of Water Injection in Water-Wet Fractured Media," published in *Journal of Canadian Petroleum Technology (JCPT)*, Vol. 39, March 2000, (3) pp. 31 – 42. (Recipient of the Best Paper Award of 2000)
3. Clarke, M.A., **Pooladi-Darvish, M.**, and Bishnoi, P.R.: "A Method to Predict Equilibrium Conditions of Gas Hydrate Formation in Porous Media," published in *Industrial and Engineering Chemistry Research*, Vol. 38, February 1999, (2) pp. 2458 – 2490.
2. **Pooladi-Darvish, M.** and Firoozabadi, A.: "Solution Gas Drive in Heavy Oil Reservoirs," published in *Journal of Canadian Petroleum Technology (JCPT)*, Vol. 38, April 1999, (4) pp. 54 – 61.
1. **Pooladi-Darvish, M.** and Kharrat, R.: "Heavy Oil Recovery Using Steam Injection Methods and Their Application for Fractured Reservoirs," published in *Journal of Petroleum Institute*, Summer 1993, pp. 6 – 14.

TECHNICAL VIDEOS

Video 15: Bachu, S., **Pooladi-Darvish, M.**: "Geological Storage of CO₂; Part 1: Need, Potential and Future; Part 2: Reservoir Engineering Aspects", February 2009, 60 min; www.ihs.com