



Khalid Aziz

Otto N. Miller Professor in the School of Earth Sciences, Emeritus
Energy Science & Engineering

CONTACT INFORMATION

- **Alternate Contact**

Thuy Nguyen

Email ttnguyen@stanford.edu

Tel 650 725 2725

Bio

BIO

Khalid Aziz is the Otto N. Miller Professor Emeritus of Earth Sciences and Emeritus Professor of Energy Resources Engineering at Stanford University. Over the years he has held several positions in industry and academia, including various assignments at Stanford University, including Chair of the Petroleum Engineering Department and Associate Dean for Research in the School of Earth Sciences at Stanford University. He is the founder of the Computer Modelling Group (CMG) and a co-founder of Neotechnology Consultants, both in Calgary, Canada.

Dr. Aziz is a member of the National Academy of Engineers and a distinguished member of the Society of Petroleum Engineers. He is the recipient of numerous industry awards including the SPE's Honorary Member Award (highest award given by SPE), SPE Ferguson Award, SPE Reservoir Engineering Award, and SPE Lester C. Uren Award. He served as a Director of SPE from 1997 to 2000. He is the author or co-author of over 150 technical papers, two books (Petroleum Reservoir Simulation and Flow of Complex Mixtures in Pipes), one monograph (Gradient Curves for Well Analysis and Design), and contributor to the classic handbook (Theory and Practice of the Testing of Gas Wells).

Dr. Aziz's technical interests include multiphase and single phase flow in pipes, reservoir simulation, natural gas engineering, non-conventional well modeling and hydrocarbon fluid phase behavior, shale gas and shale oil recovery. He is a frequent consultant to the international oil and gas industry and national oil companies in various countries.

ACADEMIC APPOINTMENTS

- Emeritus Faculty, Acad Council, Energy Science & Engineering
- Affiliate, Precourt Institute for Energy
- Affiliate, Stanford Woods Institute for the Environment

ADMINISTRATIVE APPOINTMENTS

- Professor Emeritus Energy Resources Engineering, Stanford University, (2009- present)
- Director or Co-Director of Smart Fields Consortium (SFC), Stanford University, (2006- present)
- Professor of Energy Resources Engineering, Stanford University, (2006-2009)

- Associate Chair, Petroleum Engineering, Stanford University, (2001-2003)
- Chair, Petroleum Engineering, Stanford University, (1994-1995)
- Director or Co-Director of Advanced Wells Industrial Affiliates Program (SUPRI-HW), Stanford University, (1993-2010)
- Acting Chair, Petroleum Engineering, Stanford University, (1993-1994)
- Otto N Miller Professor, School of Earth Sciences, Stanford University, (1989-2009)
- Chair, Petroleum Engineering, Stanford University, (1986-1991)
- Director or Co-Director of Reservoir Simulation Industrial Affiliates Program (SUPRI-B), Stanford University, (1983- present)
- Associate Dean for Research, School of Earth Sciences, Stanford University, (1983-1986)
- Professor of Petroleum Engineering, Stanford University, (1982-2006)
- Manager and Director, Computer Modeling Group (CMG), (1977-1982)
- Chairman of Board and Other Positions, Neotechnology Consultants, (1972-1985)
- Assistant Professor to Professor of Chemical and Petroleum Engineering, The University of Calgary, (1965-1982)
- Chief Engineer, Karachi Gas Company, (1962-1963)
- Distribution Engineer, Karachi Gas Company, (1958-1959)
- Junior Design Engineer, Massey Ferguson, (1955-1956)

HONORS AND AWARDS

- Gold Medal, Association of Professional Engineers of Alberta (1958)
- Ralph Budd Award, Rice University (1966)
- Distinguished Service Award, Petroleum Society of CIM (1975)
- Killam Resident Fellow, University of Calgary (1977)
- Ferguson Award, Ferguson Award (1979)
- Distinguished Member, Society of Petroleum Engineers (1983)
- Reservoir Engineering Award, Society of Petroleum Engineers (1987)
- Lester C Uren Award, Society of Petroleum Engineers (1988)
- Distinguished Achievement Award for Petroleum Engineering Faculty, Society of Petroleum Engineers (1990)
- Diploma of Honor, Pi Epsilon Tau, National Petroleum Engineering Honor Society (1991)
- Honorary Professor, Department of Chemical and Petroleum Engineering, The University of Calgary (1994)
- Honorary Member, American Institute of Mining, Metallurgical, and Petroleum Engineers (AIME) (1995)
- Honorary Member, Society of Petroleum Engineers (1995)
- Membership, National Academy of Engineering (1996)
- Foreign Member, Russian Academy of Natural Sciences (1996)
- Doctor of Laws (Honoris Causa), The University of Calgary (2008)
- Legion of Honor, Society of Petroleum Engineers (2009)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Member, Technical Advisory Committee, Computer Modelling Group, Calgary, Canada (1982 - 2004)
- Co-Director, Stanford Reservoir Simulation Industrial Affiliates Program (SUPRI-B), Stanford University (1983 - present)
- Member, U.S. National Committee for World Petroleum Congresses (1983 - 2011)
- Chair, Petroleum Engineering, Stanford University (1986 - 1991)

- Associate Editor, Journal of Petroleum Science and Engineering (1987 - 1995)
- Associate Editor, In-Situ, Stanford University (1987 - 1995)
- Co-organizer and Co-chair, International Forums on Reservoir Simulation (1988 - 2007)
- Member, ASME Multiphase Flow Technical Committee (1990 - 2004)
- Member, Advisory Board, Gulam Ishaq Khan Institute of Engineering Science and Technology, Pakistan (1992 - present)
- Member, Research Advisory Council, Petronas, Malaysia (1992 - 1995)
- Member, SPE Anthony F. Lucas Gold Medal Committee (Chair, 1996-1997) (1994 - 1997)
- Chair of Petroleum Engineering, Stanford University (1994 - 1995)
- Member, Editorial Board, Encyclopedia of Life Support Systems (EOLSS) (1995 - 1998)
- Executive Editor, SPE Journal (1995 - 1997)
- Session coordinator, Heriot-Watt and Stanford Forum on Reservoir Description and Modeling (1995 - 2004)
- Member, Visiting Committee, Petroleum Engineering Department, Colorado School of Mines (1995 - 2001)
- Co-Director, Stanford Project on the Productivity and Injectivity of Horizontal Wells (SUPRI-HW), Stanford University (1995 - 2010)
- Member, Technical Program Committee, SPE Reservoir Simulation Symposium, Stanford University (1996 - 1997)
- Instructor, Short course of Reservoir Simulation, Petroleum Engineering Department, Stanford University (1996 - 2006)
- Freshman/Sophomore Adviser, Stanford University (1996 - 1998)
- Invited faculty member, 21st Nathiagali Summer College, Nathiagali, Pakistan (1996 - 1996)
- Invited speaker, University of Valencia, Valencia, Spain; RIPED, Beijing, China; Japan National Oil Corp., Chiba, Japan; Japan Petroleum Exploration Co., Tokyo, Japan; Wasada University, Japan; Norsk Hydro, Bergen, Norway; Department of Computer Science, University of Texas, Austin; Department of Petroleum Engineering, University of Texas, Austin (1996 - 1996)
- Member, Search Committee, Research Professor, Department of Petroleum Engineering, Stanford University (1997 - 1998)
- Member, Graduate Admission Committee, Department of Petroleum Engineering, Stanford University (1997 - 1998)
- Member, Search Committee, Ocean Margins Initiative (1997 - 1998)
- Speaker, SPE Western Regional Meeting, Long Beach, California (1997 - 1997)
- Speaker, IEA Workshop and Symposium on Enhanced Oil Recovery, Copenhagen, Denmark (1997 - 1997)
- Invited speaker, Norsk Hydro Meeting on Simulation While Drilling, Bergen, Norway (1997 - 1997)
- Invited speaker, BP's Reservoir Management Meeting, United Kingdom (1997 - 1997)
- Lecturer, Stanford Travel/Study Program's Arabia Coast College, Stanford University (1997 - 1997)
- Invited faculty member, 22nd International Nathiagali Summer College on Physics and Contemporary Needs, Islamabad, Pakistan (1997 - 1997)
- Invited speaker, SPE Asia Pacific Oil and Gas Conference and Exhibition, Kuala Lumpur, Malaysia (1997 - 1997)
- Invited speaker, School of Engineering, Distinguished Lecture Series, Rice University, Houston, Texas (1997 - 1997)
- Member, SPE Board Committee on Technical Publications (1997 - 2000)
- Director, Society of Petroleum Engineers (1997 - 2000)
- Chair, Search Committee, Petroleum Engineering Faculty, Stanford University (1998 - 2002)
- Member, Earth Sciences Council, Stanford University (1998 - 2006)
- Invited speaker, Japan Petroleum Institute, Tokyo, Japan; Norsk-Hydro, Oslo, Norway; Saga Petroleum, Oslo, Norway; Schlumberger, Paris, France; Pakistan Institute of Petroleum, Islamabad, Pakistan; Professor T. David Hellums Retirement Symposium, Rice University (1998 - 1998)
- Member, Steering Committee, SPE Foundation on History of Petroleum Engineering (1998 - 1998)
- Member, SPE Honorary Member Award Committee (1998 - 2001)
- Instructor, Reservoir Simulation Short Course, Chevron (1999 - 1999)
- Invited speaker, SPE Kuwait Section; SIAM Conference (1999 - 1999)

- Consultant, Evaluation of Kuwait University M.Sc. program in Petroleum Engineering (1999 - 1999)
- Invited speaker, California Independent Petroleum Association, Newport Beach, CA; SPE Western Regional Meeting, Long Beach, CA; International Petroleum Seminar, Vitoria, Brazil; SPE Asia Pacific Conference, Yokohama, Japan; Waseda University, Tokyo, Japan; Schlumberger Doll Research, Ridgefield, CT (2000 - 2000)
- Invited Speaker, The Lynam Handy Colloquium, University of Southern California, Los Angeles, CA (2000 - 2000)
- Member, Science and Engineering Advisory Committee, Alberta Ingenuity Fund (2000 - 2010)
- Lecturer, Stanford Travel/Study Program, Saudi Arabia, Stanford University (2001 - 2001)
- Member, Peer Review Committee, National Academy of Engineering (2001 - 2004)
- Invited speaker, W.E.B. Jubilee Symposium, Stanford University; Stanford Women's Club, San Francisco; SPE Forum Series in North America; Stanford/Heriot-Watt Forum; KFUPM, Dhahran, Saudi Arabia; SPE Angola Section (2001 - 2001)
- Keynote speaker, First National Meeting on Reservoir Simulation, Buenos Aires, Argentina (2001 - 2001)
- Invited speaker, Petroleum Institute of Pakistan and SPE Pakistan Section (2001 - 2001)
- Session chair, Stanford/Heriot-Watt Forum (2001 - 2001)
- Member, SPE Reservoir Simulation Symposium Program Committee (2001 - 2001)
- Session Chair, SPE Reservoir Simulation Symposium (2001 - 2001)
- Evaluator, Norwegian Centers of Excellence Programs (2001 - 2001)
- International Advisory Editor, The Arabian Journal for Science and Engineering (2001 - 2008)
- Chair, MAP/Ming Visiting Professorship Committee, Stanford University (2002 - 2003)
- Invited speaker, Petroleum Institute of Pakistan; Rotary Club of Santa Cruz (2002 - 2002)
- Member, Organizing Committee, SPE Forum on Reservoir Simulation --A New Era. (2002 - 2003)
- Chair, Jef Caers Reappointment Committee, Stanford University (2002 - 2002)
- Member, Program Committee, 17th Society of Petroleum Engineers Reservoir Simulation Symposium, Houston, Texas (2003 - 2003)
- Invited Speaker, Iberoamerican University, Mexico City, Mexico; Stanford/Heriot-Watt Forum (2003 - 2003)
- SPE Distinguished Lecturer, Beijing, Tianjin, and Dongying, People's Republic of China; Seoul, South Korea (2004 - 2003)
- Co-Organizer, Delft-Stanford Workshop on Closed-Loop Reservoir Management (2003 - 2004)
- Co-Chair, 8th International Forum on Reservoir Simulation, Stresa, Italy, 20-24 June 2005 (2003 - 2005)
- Member SPE organizing committee, Forum on Understanding and Modeling the Near Wellbore, Dubrovnik, Croatia, 4-9 September (2004 - 2005)
- Member, organizing committee, SPE Applied technology Workshop on Modeling and Optimizing Smart Wells, Huntington Beach, California, 25-26 April (2004 - 2005)
- Invited Speaker, ENI, Milan, Italy; ExxonMobil, Houston; Schlumberger Cambridge Laboratory, Cambridge, U.K. (2004 - 2004)
- External Examiner, PhD Thesis of D. R. Brouwer, Technische Universiteit Delft (2004 - 2004)
- SPE Distinguished lecturer, Socorro, New Mexico; Bartlesville and Oklahoma City, Oklahoma, Zagreb, Croatia; Budapest, Hungary; Krakow, Poland; London, England; Trondheim, Norway, Sana'a, Yemen Arab Republic; Awali, Bahrain; Dhahran, Saudi Arabia; Kuwait City, Kuwait; Cairo, Egypt; Dhaka, Bangladesh; Islamabad, Pakistan, Buenos Aires, Argentina; Rio de Janeiro, Macae, and Salvador, Brazil; Lima, Peru; Daqing, Beijing, Tianjin, Dongying, China; Seoul, South Korea (2004 - 2004)
- Member, AIME Mineral Industry Education Award Committee (2004 - 2007)
- Member, PhD Examination Committee, Roald Brouwer, Delft University (2004 - 2004)
- Member, MAP/Ming Visiting Professorship Committee (2004 - 2007)
- Invited speaker, International Petroleum Technology Conference, Doha, UAE (2005 - 2005)
- Member, Advisory Board, School of Science & Engineering, LUMS, Pakistan (2005 - present)
- Member, Evaluation committee, PhD candidate Jarle Haukås, University of Bergen, Norway (2005 - 2006)
- Member Search Committee, Delft University chair Reservoir Systems & Control (2005 - 2005)

- Member, Program Committee, SPE Summit on Talent and Technology (2006 - 2007)
- Co-Director, Stanford Consortium on Smart Fields, Stanford University (2006 - present)
- Chair, AIME Mineral Industry Education Award Committee (2007 - 2008)
- Member, International Advisory Board, National University of Sciences & Technology, Pakistan (2007 - present)
- Chair Program Committee, SPE WR 2009 Meeting (2007 - 2009)
- Member, Organizing Committee, SPE WR 2009 Meeting (2007 - 2009)
- Member, Editorial Board, International Journal of Oil, Gas and Coal Technology (2007 - present)
- Member, SPE Talent Council (2007 - 2010)
- Distinguished Lecturer, Texas A&M University at Qatar (2010 - 2010)
- Member, Steering Committee, SPE Advanced Technology Workshop, Trondheim, Norway (2010 - 2011)
- Member, IO Center Technical Committee, NTNU, Trondheim, Norway (2007 - present)
- Program Committee, 7th International Conference on Integrated Operations in the Oil Industry, Trondheim, Norway (2010 - 2011)
- Member, Program Committee, 8th International Conference on Integrated Operations in the Oil Industry, Trondheim, Norway (2011 - present)
- Member, SPE ATW on Norne Field, June 2011, Trondheim, Norway (2011 - 2011)
- Member, Advisory Board of the Petroleum Institute, Abu Dhabi (2011 - present)
- Member, Program committee, SEG/SPE/AAPG Workshop on New Advances in Integrated Reservoir Surveillance (2011 - 2012)
- Invited Speaker, Session Chair and Panel Member, Oil and Gas Production Optimization Conference, Rio de Janeiro (2012 - 2012)
- Zandmer Distinguished Lecturer, University of Calgary (2014 - 2014)

PROFESSIONAL EDUCATION

- Ph.D., Rice University , Chemical Engineering (1966)
- M.Sc., University of Alberta , Petroleum Engineering (1961)
- B.Sc., University of Alberta , Petroleum Engineering (1958)
- B.S.E, University of Michigan , Mechanical Engineering (1955)

LINKS

- SUPRI-B: Reservoir Simulation: <https://supri-b.stanford.edu/>
- Smart Fields Consortium: <https://smartfields.stanford.edu/>
- Google Scholar Profile: <https://scholar.google.com/citations?user=nZcNWm0AAAAJ&hl=en>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

I was born in Pakistan and came to the U.S. in 1952 to study engineering. Since then I have spent most of my life in Canada and the U.S.A. working both in academia and industry. I have also worked in Pakistan for the Karachi Gas Company. I have also founded the Computer Modelling Group (CMG) and co-founded Neotechnology Consultants. While I am no longer formally associated with these companies, they have been highly successful in their respective fields.

Research

The overall goal of my research is the development of robust and reliable models for predicting performance of hydrocarbon reservoirs (including shale oil and gas) and CO₂ sequestration operations. Over the years I have been involved with the development of four different industrial consortia dealing with different aspects of this problem. The first was on reservoir simulation (SUPRI-B), the second on data integration (SCRF), the third on advanced wells (SUPRI-HW), and the most recent one on Smart Fields (SFC). Underlying my research is the desire to understand mechanisms involved during the flow of complex mixtures in porous rocks and in pipes, and

efficient modeling of these processes on computers. While I am no longer directly involved with SCRF and we have merged SUPRI-HW with other programs, I co-direct the other two consortia. All are highly successful and have led to a number of developments and innovations that have found important applications in industry.

Teaching

While I have been extensively involved in teaching in the past, I am slowly winding down my activities in this area. I still give lectures in some courses but I do not teach any full courses. I do participate in a summer short course on reservoir simulation that we offer each year for industry people. My main current activity at Stanford is research.

Professional Activities

In 2008 I was awarded the degree of Doctor of Laws (Honoris Causa) from the University of Calgary for my contribution to that university before moving to Stanford. In 2006 I received the Lifetime Achievement Award of the Petroleum Society of Canada and in 2005 I received the Blaise Pascal Medal in Earth Sciences of the European Academy of Sciences. In previous years I have received numerous national and international awards. I serve on the Advisory Board of several universities in Pakistan and have been particularly active in developing a new School of Science and Engineering at LUMS in Lahore. This school admitted its first undergraduate class of about 160 outstanding freshmen in 2008. I am a member of the national Academy of Engineering.

Publications

PUBLICATIONS

- **Gradient-based Pareto optimal history matching for noisy data of multiple types** *COMPUTATIONAL GEOSCIENCES*
Volkov, O., Bukshtynov, V., Durlafsky, L. J., Aziz, K.
2018; 22 (6): 1465–85
- **Comprehensive framework for gradient-based optimization in closed-loop reservoir management** *COMPUTATIONAL GEOSCIENCES*
Bukshtynov, V., Volkov, O., Durlafsky, L. J., Aziz, K.
2015; 19 (4): 877-897
- **Waterflood management using two-stage optimization with streamline simulation** *COMPUTATIONAL GEOSCIENCES*
Wen, T., Thiele, M. R., Ciaurri, D. E., Aziz, K., Ye, Y.
2014; 18 (3-4): 483-504
- **Adjoint formulation and constraint handling for gradient-based optimization of compositional reservoir flow** *COMPUTATIONAL GEOSCIENCES*
Kourounis, D., Durlafsky, L. J., Jansen, J. D., Aziz, K.
2014; 18 (2): 117-137
- **Approximate dynamic programming for optimizing oil production** *Reinforcement Learning and Approximate Dynamic Programming for Feedback Control*
Zheng, W., Durlafsky, L. J., Van Roy, B., Aziz, K., K.
edited by Lewis, F. L., Liu, D.
Wiley-IEEE Press.2012
- **Then and Now Dewpoint of Natural Gases** *JOURNAL OF CANADIAN PETROLEUM TECHNOLOGY*
Aziz, K.
2011; 50 (1): 10-11
- **A Semianalytical Thermal Multiphase Wellbore-Flow Model for Use in Reservoir Simulation** *SPE JOURNAL*
Livescu, S., Durlafsky, L. J., AZIZ, K.
2010; 15 (3): 794-804
- **Adaptively Localized Continuation-Newton Method Nonlinear Solvers That Converge All the Time** *SPE JOURNAL*
YOUNIS, R. M., Tchelepi, H. A., AZIZ, K.
2010; 15 (2): 526-544
- **A fully-coupled thermal multiphase wellbore flow model for use in reservoir simulation** *4th International Symposium on Hydrocarbons and Chemistry*

Livescu, S., Durlofsky, L. J., AZIZ, K., GINESTRA, J. C.
ELSEVIER SCIENCE BV.2010: 138–46

- **Modeling of Multisegmented Thermal Wells in Reservoir Simulation** *SPE EUROPEC/EAGE Annual Conference and Exhibition*
Semenova, A., Livescu, S., Durlofsky, L. J., Aziz, K.
2010
- **Optimization of Multilateral Well Design and Location in a Real Field Using a Continuous Genetic Algorithm** *SPE/DGS Annual Technical Symposium and Exhibition*
Bukhamsin, A. Y., Farshi, M. M., Aziz, K.
2010
- **Development and application of a fully-coupled thermal compositional wellbore flow model, SPE paper 121306** *SPE Western Regional Meeting, San Jose, CA, March 24-26*
Livescu, S., Aziz, K., Durlofsky, L. J.
2009
- **Production optimization with adjoint models under nonlinear control-state path inequality constraints** *2006 SPE Intelligent Energy Conference and Exhibition*
Sarma, P., Chen, W. H., Durlofsky, L. J., Aziz, K.
SOC PETROLEUM ENG.2008: 326–39
- **Characterization of the Pliocene gas reservoir aquifers for predicting subsidence on the Ravenna coast** *PETROLEUM SCIENCE AND TECHNOLOGY*
Stright, D. H., Settari, A., Walters, D. A., AZIZ, K.
2008; 26 (10-11): 1267-1281
- **Application of a new fully-coupled thermal multiphase wellbore flow model** *SPE Improved Oil Recovery Symposium*
Livescu, S., Durlofsky, L. J., Aziz, K., Ginestra, J. C.
2008
- **Application of statistical proxies to speed up field development optimization procedures** *International Petroleum Exhibition and Conference*
Onwunali, J., Litvak, M., Durlofsky, L. J., Aziz, K.
2008
- **Upscaling and discretization errors in reservoir simulation** *PETROLEUM SCIENCE AND TECHNOLOGY*
Sablok, R., AZIZ, K.
2008; 26 (10-11): 1161-1186
- **Kernel principal component analysis for efficient, differentiable parameterization of multipoint geostatistics** *MATHEMATICAL GEOSCIENCES*
Sarma, P., Durlofsky, L. J., Aziz, K.
2008; 40 (1): 3-32
- **Numerical techniques used for predicting subsidence due to gas extraction in the North Adriatic Sea** *PETROLEUM SCIENCE AND TECHNOLOGY*
Settari, A., Walters, D. A., Stright, D. H., AZIZ, K.
2008; 26 (10-11): 1205-1223
- **Computational techniques for closed-loop reservoir modeling with application to a realistic reservoir** *PETROLEUM SCIENCE AND TECHNOLOGY*
Sarma, P., Durlofsky, L. J., AZIZ, K.
2008; 26 (10-11): 1120-1140
- **A New Approach to Automatic History Matching using Kernel PCA** *SPE Reservoir Simulation Symposium*
Sarma, P., Durlofsky, L. J., Aziz, K., Chen, W.
2007
- **Parallel Automatically Differentiable Data-types for Next Generation Simulator Development** *SPE Reservoir Simulation Symposium*
Younis, Y. M., Aziz, K.
2007
- **Optimization of nonconventional wells under uncertainty using statistical proxies** *COMPUTATIONAL GEOSCIENCES*
Artus, V., Durlofsky, L. J., Onwunali, J., Aziz, K.
2006; 10 (4): 389-404

- **New transfer functions for simulation of naturally fractured reservoirs with dual-porosity models** *2004 SPE Annual Technical Conference and Exhibition*
Sarma, P., Aziz, K.
SOC PETROLEUM ENG.2006: 328–40
- **Closed-loop reservoir management - Preface** *COMPUTATIONAL GEOSCIENCES*
Jansen, J., Durlofsky, L., Aziz, K., van Kruijsdijk, C.
2006; 10 (1): 1-2
- **Efficient real-time reservoir management using adjoint-based optimal control and model updating** *Workshop on Closed-Loop Reservoir Management*
Sarma, P., Durlofsky, L. J., Aziz, K., Chen, W. H.
SPRINGER.2006: 3–36
- **Drift-flux parameters for three-phase steady-state flow in wellbores** *2004 SPE Annual Technical Conference and Exhibition*
Shi, H., Holmes, J. A., Diaz, L. R., Durlofsky, L. J., AZIZ, K.
SOC PETROLEUM ENG.2005: 130–37
- **Drift-flux modeling of two-phase flow in wellbores** *2003 SPE Annual Technical Conference and Exhibition*
Shi, H., Holmes, J. A., Durlofsky, L. J., AZIZ, K., Diaz, L. R., Alkaya, B., Oddie, G.
SOC PETROLEUM ENG.2005: 24–33
- **Characterization of the Pliocene gas reservoir aquifers for predicting subsidence on the Ravenna Coast** *7th International Symposium on Land Subsidence*
Stright, D. H., Settari, A., Walters, D. A., Aziz, K.
MILLPRESS SCIENCE PUBLISHERS.2005: 19–33
- **Upscaling and Discretization Errors in Reservoir Simulation** *SPE Reservoir Simulation Symposium*
Sablok, R., Aziz, K.
2005
- **Implementation of Adjoint Solution for Optimal Control of Smart Wells** *SPE Reservoir Simulation Symposium*
Sarma, P., Aziz, K., Durlofsky, L. J.
2005
- **Efficient Closed-loop Production Optimization Under Uncertainty** *14th Europec Biennial Conference*
Sarma, P., Durlofsky, L. ., Aziz , K.
2005
- **Advances in Reservoir Simulation** *8th International Forum on Reservoir Simulation*
Tchelepi, H. A., Aziz, K.
2005
- **Numerical techniques used for predicting subsidence due to gas extraction in the Northern Adriatic** *7th International Symposium on Land Subsidence*
Settari, A. (., Walters, D. A., Stright, D. H., Aziz, K.
MILLPRESS SCIENCE PUBLISHERS.2005: 101–119
- **Decision analysis under uncertainty for smart well deployment (vol 43, pg 183, 2004)** *JOURNAL OF PETROLEUM SCIENCE AND ENGINEERING*
Yeten, B., Brouwer, D. R., Durlofsky, L. J., AZIZ, K.
2004; 44 (1-2): 173-?
- **Decision analysis under uncertainty for smart well deployment** *SPE International Thermal Operations and Heavy Oil Symposium*
Yeten, B., Brouwer, D. R., Durlofsky, L. J., AZIZ, K.
ELSEVIER SCIENCE BV.2004: 183–99
- **An efficient discrete-fracture model applicable for general-purpose reservoir simulators** *2003 SPE Reservoir Simulation Symposium*
Karimi-Fard, M., Durlofsky, L. J., Aziz, K.
SOC PETROLEUM ENG.2004: 227–36
- **Modeling and Optimization of Oil and Gas Producing Wells** *Gubkin Workshop*
Aziz and , K., Durlofsky , L.
2004

- **New Transfer Functions for Simulation of Naturally Fractured Reservoirs with Dual Porosity Models** *SPE Annual Technical Conference and Exhibition*
Sarma, P., Aziz, K.
2004
- **Drift-flux Parameters for Three-phase Steady-state Flow in Wellbores** *SPE Annual Technical Conference and Exhibition*
Shi, H., Holmes, J. A., Diaz, L. R., Durlofsky, L. J., Aziz, K.
2004
- **Optimization of advanced well type and performance** *9th European Conference on the Mathematics of Oil Recovery*
Aitokhuehi, I., Durlofsky, L. J., Artus, V., Yeten, B., Aziz, K.
2004
- **Optimization of nonconventional well type, location, and trajectory** *2002 SPE Annual Technical Conference and Exhibition*
Yeten, B., Durlofsky, L. J., Aziz, K.
SOC PETROLEUM ENG.2003: 200–210
- **Efficient modeling of nonconventional wells with downhole inflow control devices** *Brigham Symposium*
Valvatne, P. H., Serve, J., Durlofsky, L. J., AZIZ, K.
ELSEVIER SCIENCE BV.2003: 99–116
- **Experimental study of two and three phase flows in large diameter inclined pipes** *INTERNATIONAL JOURNAL OF MULTIPHASE FLOW*
Oddie, G., Shi, H., Durlofsky, L. J., AZIZ, K., Pfeffer, B., Holmes, J. A.
2003; 29 (4): 527-558
- **Calculation of well index for nonconventional wells on arbitrary grids** *COMPUTATIONAL GEOSCIENCES*
Wolfsteiner, C., Durlofsky, L. J., AZIZ, K.
2003; 7 (1): 61-82
- **An Efficient Discrete Fracture Model Applicable for General Purpose Reservoir Simulators** *SPE Reservoir Simulation Symposium*
Karimi-Fard, M., Durlofsky, L. J., Aziz, K.
2003
- **Drift-Flux Modeling of Multiphase Flow in Wellbores** *SPE Annual Technical Conference and Exhibition*
Shi, H., Alkaya, B., Holmes, J. A., Durlofsky, L. J., Aziz, K., Oddie, G.
2003
- **Optimization of Intelligent Well Control** *World Oil*
Yeten, B., Durlofsky, L. J., Aziz, K.
2003; Optimization of Intelligent Well Control (35-40)
- **Stabilized Finite Element Methods for Coupled Geomechanics - Reser Flow Simulations** *SPE Reservoir Simulation Symposium*
Wan, J., Durlofsky, L. J., Hughes, T. R., Aziz, K.
2003
- **Semi-analytical well model of horizontal wells with multiple hydraulic fractures** *1999 SPE Western Regional Meeting*
Wan, J., Aziz, K.
SOC PETROLEUM ENG.2002: 437–45
- **A mechanistic model for gas-liquid flow in horizontal wells with radial influx or outflux** *PETROLEUM SCIENCE AND TECHNOLOGY*
Ouyang, L. B., AZIZ, K.
2002; 20 (1-2): 191-222
- **Optimization of Production Operations in Petroleum Fields** *SPE Annual Technical Conference and Exhibition*
Yeten, B., Durlofsky, L. J., Aziz, K.
2002
- **Performance of IMPSAT and IMPSAT-AIM Models in Compositional Simulation** *SPE Annual Technical Conference and Exhibition*
Cao, H., Aziz, K.
2002

- **Optimization of Production form Mature Fields** *17th World Petroleum Congress*
Wang, P., Litvak, M. L., Aziz, K.
2002
- **Solution nonuniqueness for separated gas-liquid flow in pipes and wells. II. Analysis** *PETROLEUM SCIENCE AND TECHNOLOGY*
Ouyang, L. B., AZIZ, K.
2002; 20 (1-2): 173-190
- **Solution nonuniqueness for separated gas-liquid flow in pipes and wells. I. Occurrence** *PETROLEUM SCIENCE AND TECHNOLOGY*
Ouyang, L. B., AZIZ, K.
2002; 20 (1-2): 143-171
- **Transient gas-liquid two-phase flow in pipes with radial influx or efflux** *JOURNAL OF PETROLEUM SCIENCE AND ENGINEERING*
Ouyang, L. B., AZIZ, K.
2001; 30 (3-4): 167-179
- **A general single-phase wellbore/reservoir coupling model for multilateral wells** *1998 SPE Annual Technical Conference and Exhibition*
Ouyang, L. B., AZIZ, K.
SOC PETROLEUM ENG.2001: 327-35
- **Productivity of horizontal and multilateral wells** *PETROLEUM SCIENCE AND TECHNOLOGY*
AZIZ, K., Ouyang, L. B.
2001; 19 (7-8): 1009-1025
- **Semi-Analytical Modeling of the Performance of Intelligent Well Completions** *SPE Reservoir Simulation Symposium*
Valvatne, P. H., Durlofsky, L. J., Aziz, K.
2001
- **Modeling Conventional and Non-Conventional Wells** *Sixth International Forum on Reservoir Simulation*
Wolfsteiner, C., Aziz, K., Durlofsky, L. J.
2001
- **Discussion of effects of grid systems on predicting horizontal-well productivity - Reply** *SPE JOURNAL*
AZIZ, K., Wang, J.
2000; 5 (4): 492-492
- **Effects of grid systems on predicting horizontal-well productivity** *1998 SPE Western Regional Meeting*
Wan, J., Penmatcha, V. R., Arbabi, S., Aziz, K.
SOC PETROLEUM ENG.2000: 309-14
- **A homogeneous model for gas-liquid flow in horizontal wells** *JOURNAL OF PETROLEUM SCIENCE AND ENGINEERING*
Ouyang, L. B., AZIZ, K.
2000; 27 (3-4): 119-128
- **A mechanistic model for multiphase flow in pipes** *49th Annual Technical Meeting*
Petalas, N., AZIZ, K.
CANADIAN INST MINING METALLURGY PETROLEUM.2000: 43-55
- **Approximate model for productivity of nonconventional wells in heterogeneous reservoirs** *1999 SPE Annual Technical Conference and Exhibition*
Wolfsteiner, C., Durlofsky, L. J., AZIZ, K.
SOC PETROLEUM ENG.2000: 218-26
- **Productivity and Injectivity of Horizontal Wells - Final Report for the Period March 10, 1993 to May 30, 1998** *DOE Contract*
Aziz, K.
U.S. Dept. of Energy.2000; March (DE-FG22-93BC14862)
- **Efficient Estimation of the Effects of Wellbore Hydraulics and Reservoir Heterogeneity on the Productivity of Non-Conventional Wells** *SPE Asia Pacific Conference on Integrated Modellin*
Wolfsteiner, C., Durlofsky, L. J., Aziz, K.
2000

- **Approximate Finite Difference Modeling of the Performance of Horizontal Wells in Heterogeneous Reservoirs** *SPE Western Regional Meeting*
Yeten, B., Wolfsteiner, C., Durlofsky, L. J., Aziz, K.
2000
- **Why is it so difficult to predict the performance of horizontal wells?** *JOURNAL OF CANADIAN PETROLEUM TECHNOLOGY*
AZIZ, K., Arbabi, S., Deutsch, C. V.
1999; 38 (10): 37-45
- **Comprehensive Reservoir/Wellbore Model for Horizontal Wells** *SPE JOURNAL*
Penmatcha, V. R., Aziz, K.
1999; 4 (3): 224-234
- **Effects of Pressure Drop in Horizontal Wells and Optimum Well Length** *SPE JOURNAL*
Penmatcha, V. R., Arbabi, S., Aziz, K.
1999; 4 (3): 215-223
- **Evaluation of Dynamic Pseudofunctions for Reservoir Simulation** *SPE JOURNAL*
Guzman, R. E., Giordano, D., FAYERS, F. J., Godi, A., Aziz, K.
1999; 4 (1): 37-46
- **Multiple Hydraulic Fractures in Horizontal Wells** *SPE Western Regional Conference*
Wan, J., Aziz, K.
1999
- **A Comprehensive Reservoir-Wellbore Model for Horizontal Wells** *SPE Journal*
Penmatcha, V. R., Aziz, K.
1999; 4 (3): 224-234
- **Evaluation of Pseudofunctions** *SPE Western Regional Conference*
Cao, H., Aziz, K.
1999
- **Modular Mesh Generation With Embedded Streamline Potential Grids** *SPE Reservoir Simulation Symposium*
Edwards, M. G., Li, B., Aziz, K.
1999
- **A Preconditioned Adaptive Implicit Method for Reservoirs with Surface Facilities** *SPE Reservoir Simulation Symposium*
Byer, T. J., Edwards, M. G., Aziz, K.
1999
- **A Mechanistic Model for Gas-Liquid Flow in Pipes with Radial Influx or Outflux** *SPE Annual Technical Conference and Exhibition*
Ouyang, L., Aziz, K.
1999
- **Effects of Pressure Drop in Horizontal Wells and Optimum Well Length** *SPE Journal*
Penmatcha, V. R., Arbabi, S., Aziz, K.
1999; 4 (3): 215-223
- **Evaluation of Dynamic Pseudo Functions for Reservoir Simulation** *SPE Journal*
Guzman, R. E., Giordano, D., Fayers, F. J., Godi, A., Aziz, K.
1999; 4 (1): 37-46
- **Effect of chokes on simultaneous simulation of reservoir and surface facilities** *Informacion Tecnologica CIT*
Schiozer, D. J., Aziz, K.
1998; 9 (1): 25-32
- **Practical procedure to predict cresting behavior in horizontal wells** *SPE Journal*
Souza, A. S., Arbabi, S., Aziz, K.
1998; 3 (4): 382-392

- **Productivity of horizontal and multilateral wells** *10th International Conference on Horizontal Well Technology and Applications*
Aziz, K., Ouyang, L.
1998
- **Experimental study of single phase and two-phase fluid flow in horizontal wells** *SPE Western Regional Meeting*
Ouyang, L., Petalas, N., Arbabi, S., Schroeder, D. E., Aziz, K.
1998
- **Preconditioning methods for coupled reservoir and facility models** *6th European Conference on the Mathematics of Oil Recovery (ECMOR)*
Byer, T. J., Edwards, M. G., Aziz, K.
1998
- **General wellbore flow model for horizontal, vertical, and slanted well completions, SPE 36608** *SPE Journal*
Ouyang, L. B., Arbabi, S., Aziz, K.
1998: 124-133
- **Preconditioned newton methods for fully coupled reservoir and surface facility models** *SPE Annual Technical Conference and Exhibition*
Byer, T. J., Edwards, M. G., Aziz, K.
1998
- **Quasi K-orthogonal streamline grids: gridding and discretization** *SPE Annual Technical Conference and Exhibition*
Edwards, M. G., Agut, R., Aziz, K.
1998
- **A mechanistic model for multiphase flow in pipes** *49th Annual Technical Meeting of the Petroleum Society of the CIM*
Petalas, N., Aziz, K.
1998
- **A Single-Phase Wellbore-Flow Model for Horizontal, Vertical, and Slanted Wells** *SPE Journal*
Ouyang, L., Arbabi, S., Aziz, K.
1998; 6: 124-133
- **A simplified approach to couple wellbore flow and reservoir inflow for arbitrary well configurations** *SPE Annual Technical Conference and Exhibition*
Ouyang, L., Aziz, K.
1998
- **A comprehensive reservoir-wellbore model for horizontal wells** *SPE India Oil and Gas Conference and Exhibition*
Penmatcha, V. R., Aziz, K.
1998
- **Effects of grid systems on predicting horizontal well productivity** *SPE Western Regional Meeting*
Wan, J., Penmatcha, V. R., Arbabi, S., Aziz, K.
1998
- **Flexible streamline-potential grids with discretization on highly distorted cells** *6th European Conference on the Mathematics of Oil Recovery (ECMOR)*
Agut, R., Edwards, M., Verma, S., Aziz, K.
1998
- **Modelling the behavior of horizontal wells** *IEA Workshop and Symposium on EOR*
Aziz, K., Arbabi, S., Penmatcha, V. R.
1997
- **Simple but accurate equations for wellbore pressure drawdown calculation** *SPE Western Regional Meeting*
Ouyang, L., Thomas, L. K., Evans, C. E., Aziz, K.
1997
- **High-throughput TVD-based simulation of tracer flow** *13th SPE Reservoir Simulation Symposium*
Wattenbarger, R. C., Aziz, K., Orr, Jr., F. M.
1997: 25

- **A control volume scheme for flexible grids in reservoir simulation** *SPE Reservoir Simulation Symposium*
Verma, S., Aziz, K.
1997
- **Effects of pressure drop in horizontal wells and optimum well length** *SPE Production Operations Symposium*
Penmatcha, V. R., Arbabi, S., Aziz, K.
1997
- **Steady-state gas flow in pipes** *JOURNAL OF PETROLEUM SCIENCE AND ENGINEERING*
Ouyang, L. B., AZIZ, K.
1996; 14 (3-4): 137-158
- **MATRIX-FRACTURE TRANSFER SHAPE FACTORS FOR DUAL-POROSITY SIMULATORS** *JOURNAL OF PETROLEUM SCIENCE AND ENGINEERING*
Lim, K. T., AZIZ, K.
1995; 13 (3-4): 169-178
- **SIMPLIFIED EQUATION PREDICTS GAS-FLOW RATE, PRESSURE-DROP** *OIL & GAS JOURNAL*
AZIZ, K., Ouyang, L. B.
1995; 93 (19): 70-71
- **RESERVOIR SIMULATION GRIDS - OPPORTUNITIES AND PROBLEMS (JPT, VOL 45, PG 658, 1993)** *JOURNAL OF PETROLEUM TECHNOLOGY*
AZIZ, K.
1993; 45 (9): 856-856
- **RESERVOIR SIMULATION GRIDS - OPPORTUNITIES AND PROBLEMS** *JOURNAL OF PETROLEUM TECHNOLOGY*
AZIZ, K.
1993; 45 (7): 658-663
- **PREDICTION OF UNCERTAINTY IN RESERVOIR PERFORMANCE FORECAST** *JOURNAL OF CANADIAN PETROLEUM TECHNOLOGY*
Ballin, P. R., Journel, A. G., AZIZ, K.
1992; 31 (4): 52-62
- **RELATIVE PERMEABILITIES FROM CENTRIFUGE DATA** *JOURNAL OF CANADIAN PETROLEUM TECHNOLOGY*
Firoozabadi, A., AZIZ, K.
1991; 30 (5): 33-42
- **Use of symbolic computation in petroleum engineering** *JOURNAL OF PETROLEUM SCIENCE AND ENGINEERING*
Oberaigner, E., Aziz, K.
1991; 5 (3): 237-246
- **4TH SPE COMPARATIVE SOLUTION PROJECT - COMPARISON OF STEAM INJECTION SIMULATORS** *JOURNAL OF PETROLEUM TECHNOLOGY*
AZIZ, K., RAMESH, A. B., WOO, P. T.
1987; 39 (12): 1576-1584
- **HANDLING OF PHASE-CHANGE IN THERMAL SIMULATORS** *JOURNAL OF PETROLEUM TECHNOLOGY*
ABOUKASSEM, J. H., AZIZ, K.
1985; 37 (10): 1661-1663
- **MICROCOMPUTER DESIGNS SINGLE AND MULTIPHASE PIPE LINES .2. PIPE LINE INDUSTRY**
AZIZ, K., Gregory, G. A., DESOUZA, E. A.
1985; 62 (6): 38-39
- **MICROCOMPUTER DESIGNS SINGLE AND MULTIPHASE PIPE LINES .1. PIPE LINE INDUSTRY**
AZIZ, K., Gregory, G. A., DESOUZA, E. A.
1985; 62 (5): 31-?
- **ANALYTICAL WELL MODELS FOR RESERVOIR SIMULATION** *SOCIETY OF PETROLEUM ENGINEERS JOURNAL*
ABOUKASSEM, J. H., AZIZ, K.

-
- 1985; 25 (4): 573-579
- **SENSITIVITY OF STEAMFLOOD MODEL RESULTS TO GRID AND TIMESTEP SIZES** *SOCIETY OF PETROLEUM ENGINEERS JOURNAL*
ABOUKASSEM, J. H., AZIZ, K.
1984; 24 (1): 65-74
 - **COMPUTER-SIMULATION OF WATER CONING BY A SEQUENTIAL SOLUTION METHOD** *JOURNAL OF CANADIAN PETROLEUM TECHNOLOGY*
KO, S. C., AZIZ, K., Settari, A.
1980; 19 (1): 61-73
 - **ANALYSIS OF VERTICAL 2-PHASE FLOW CALCULATIONS - CRUDE OIL-GAS FLOW IN WELL TUBING** *JOURNAL OF CANADIAN PETROLEUM TECHNOLOGY*
Gregory, G. A., Fogarasi, M., AZIZ, K.
1980; 19 (1): 86-92
 - **Petroleum reservoir Simulation-New translations in Russian and Chinese**
Aziz, K., Settari, A.
Applied Science Publishers.1979
 - **COMPUTER DESIGN OF DENSE-PHASE PIPELINES** *JOURNAL OF PETROLEUM TECHNOLOGY*
Gregory, G. A., AZIZ, K., Moore, R. G.
1979; 31 (1): 40-50
 - **ORIFICE METERING OF 2-PHASE FLOW** *JOURNAL OF PETROLEUM TECHNOLOGY*
Mattar, L., Nicholson, M., AZIZ, K., Gregory, G. A.
1979; 31 (8): 955-961
 - **CALCULATION OF PRESSURE AND TEMPERATURE PROFILES IN MULTIPHASE PIPELINES AND SIMPLE PIPELINE NETWORKS** *JOURNAL OF CANADIAN PETROLEUM TECHNOLOGY*
Gregory, G. A., AZIZ, K.
1978; 17 (1): 56-68
 - **ANALYSIS OF MODIFIED ISOCHRONAL TESTS TO PREDICT STABILIZED DELIVERABILITY POTENTIAL OF GAS-WELLS WITHOUT USING STABILIZED FLOW DATA** *JOURNAL OF PETROLEUM TECHNOLOGY*
Brar, G. S., AZIZ, K.
1978; 30 (FEB): 297-304
 - **INTERMITTENT 2 PHASE FLOW IN HORIZONTAL PIPES - PREDICTIVE MODELS** *CANADIAN JOURNAL OF CHEMICAL ENGINEERING*
Nicholson, M. K., AZIZ, K., Gregory, G. A.
1978; 56 (6): 653-663
 - **CORRELATION OF LIQUID VOLUME FRACTION IN SLUG FOR HORIZONTAL GAS-LIQUID SLUG FLOW** *INTERNATIONAL JOURNAL OF MULTIPHASE FLOW*
Gregory, G. A., Nicholson, M. K., AZIZ, K.
1978; 4 (1): 33-39
 - **CARBON-DIOXIDE INJECTION INTO BOTTOM-WATER, UNDERSATURATED VISCOUS OIL-RESERVOIRS** *JOURNAL OF PETROLEUM TECHNOLOGY*
STRIGHT, D. H., AZIZ, K., Settari, A., STARRATT, F. E.
1977; 29 (OCT): 1248-1258
 - **USE OF PRESSURE, PRESSURE-SQUARED OR PSEUDO-PRESSURE IN ANALYSIS OF TRANSIENT PRESSURE DRAWDOWN DATA FROM GAS-WELLS** *JOURNAL OF CANADIAN PETROLEUM TECHNOLOGY*
AZIZ, K., Mattar, L., Ko, S., Brar, G. S.
1976; 15 (2): 58-65
 - **INFLUENCE OF PRODUCTION-RATE ON RECOVERY OF OIL FROM HORIZONTAL WATERFLOODS** *JOURNAL OF PETROLEUM TECHNOLOGY*
STRIGHT, D. H., Bennion, D. W., AZIZ, K.
1975; 27 (MAY): 555-563
-

- **COMPRESSIBILITY OF NATURAL GASES** *JOURNAL OF CANADIAN PETROLEUM TECHNOLOGY*
Mattar, L., Brar, G. S., AZIZ, K.
1975; 14 (4): 77-80
- **SOME DESIGN CONSIDERATIONS FOR 2-PHASE FLOW IN PIPES** *JOURNAL OF CANADIAN PETROLEUM TECHNOLOGY*
Gregory, G. A., MANDHANE, J. M., AZIZ, K.
1975; 14 (1): 65-71
- **DESIGN OF PIPELINES FOR MULTIPHASE (GAS-CONDENSATE) FLOW** *JOURNAL OF CANADIAN PETROLEUM TECHNOLOGY*
Gregory, G. A., AZIZ, K.
1975; 14 (3): 28-33
- **CRITICAL EVALUATION OF HOLDUP PREDICTION METHODS FOR GAS-LIQUID FLOW IN HORIZONTAL PIPES** *JOURNAL OF PETROLEUM TECHNOLOGY*
MANDHANE, J. M., Gregory, G. A., AZIZ, K.
1975; 27 (AUG): 1017-1026
- **USE OF IRREGULAR GRID IN CYLINDRICAL COORDINATES** *SOCIETY OF PETROLEUM ENGINEERS JOURNAL*
Settari, A., AZIZ, K.
1974; 14 (4): 396-412
- **SOME OBSERVATIONS ON MOTION OF ELONGATED BUBBLES IN HORIZONTAL PIPES** *CANADIAN JOURNAL OF CHEMICAL ENGINEERING*
AZIZ, K., Gregory, G. A., Nicolson, M.
1974; 52 (6): 695-702
- **COMPUTER MODEL FOR 2-PHASE CONING SIMULATION** *SOCIETY OF PETROLEUM ENGINEERS JOURNAL*
Settari, A., AZIZ, K.
1974; 14 (3): 221-236
- **GENERALIZATION OF ADDITIVE CORRECTION METHODS FOR ITERATIVE SOLUTION OF MATRIX EQUATIONS** *SIAM JOURNAL ON NUMERICAL ANALYSIS*
Settari, A., AZIZ, K.
1973; 10 (3): 506-521
- **USE OF IRREGULAR GRID IN RESERVOIR SIMULATION** *SOCIETY OF PETROLEUM ENGINEERS JOURNAL*
Settari, A., AZIZ, K.
1972; 12 (2): 103-?
- **NEW ITERATIVE METHOD FOR SOLVING RESERVOIR SIMULATION EQUATIONS** *JOURNAL OF CANADIAN PETROLEUM TECHNOLOGY*
AZIZ, K., Settari, A.
1972; 11 (1): 62-?
- **PRESSURE-DROP IN WELLS PRODUCING OIL AND GAS** *JOURNAL OF CANADIAN PETROLEUM TECHNOLOGY*
AZIZ, K., Fogarasi, M., GOVIER, G. W.
1972; 11 (3): 38-?