

Curriculum Vitae of Professor Tadeusz (Tad) W. PATZEK

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Married to Joanna Patzek, Registered Physical Therapist. Three children: Lucas, Ph.D.; Sophie, M.D.; and Julie, RN
Polish Citizen, U.S. Citizen since 1991

Fields: Petroleum, Chemical, and Environmental Engineering, Ecology

Education: MS (1974), Ph.D. (1980), Chemical Engineering Department, Silesian Technical University, Poland.

Professional Experience: Professor of Chemical and Petroleum Engineering in the Physical Sciences and Engineering Division, and Director of the Upstream Petroleum Engineering Center, King Abdullah University of Science and Technology, Thuwal, Kingdom of Saudi Arabia (December 2014 – present); Professor and Chairman, Department of Petroleum and Geosystems Engineering, The University of Texas at Austin (September 2008-December 2014); Professor of Geoengineering (May 2002-September 2008), Department of Civil and Environmental Engineering, U.C. Berkeley; Associate Professor (June 1995-May 2002) and Assistant Professor of Petroleum Engineering (1990-1995), Department of Materials Science and Mineral Engineering, U.C. Berkeley; Senior Reservoir Engineer, Shell Western E&P, Inc. (1989-1990); Senior Research Engineer (1986-1989) and Research Engineer (1983-1986), Enhanced Recovery Research Department, Shell Development; Research Associate, Chemical Engineering Department, University of Minnesota (1981-1983); Research Associate, Chemical Engineering Research Center, Polish Academy of Sciences, Gliwice, Poland (1974-1980).

Other Experience: Consultant and Expert Witness for California Energy Commission; Shell Oil Company; Forensic Management Associates, Inc.; Chevron Oil Company; Baker-Hughes Company; Sutherland Resources, Inc.; Fireman's Fund Insurance Company; Grippo & Elden; Rosenfeld, Meyer & Susman; Morgan, Lewis & Bockius; Wilson, Elser, Moskowitz, Edelman & Decker; Lempres & Wulfsberg; General Electric, Inc.; PG&E; and Forensic Technologies International, Inc. President of PV Technologies, Inc., until 2008; Director of U.C. Oil Consortium. Assistant Scoutmaster for BSA Troop 206.

Professional Societies: Member, Society of Petroleum Engineers; Member, American Geophysical Union; Member; American Physical Society, Member; American Chemical Society, Member.

University/Public Service:

2013 – Co-director on the Offshore Energy Safety Institute created by the U.S. Department of Interior

2012 - President of ASPO (Association for the Study of Oil Peak) U.S.A., Washington, D. C.

2011 - Member of the Board of ASPO (Association for the Study of Oil Peak) U.S.A., Washington, D. C.

2011 – Member of the National Offshore Drilling Safety Advisory Committee of BOEMRE on offshore safety.

2010 – Briefed Senate staffers on upcoming problems with global supply of liquid transportation fuels (10/7/10)

2010 – Briefed the Energy and Environment Subcommittee of the Energy and Commerce Committee on BP's Macondo well spill (06/09/10)

2008 – Chair of University Search Committee for Dean of the College of Chemistry, UC Berkeley

2007 – Briefed EU Transportation and Environments Ministers at the Ministerial OECD Round Table on Sustainable Development, "Biofuels: Is the Cure Worse than the Disease?" (9/11/07)

2006 – 2008, Member of the Strategic Planning Committee for CEE

2000 – 2005, Chairman of the College of Engineering Committee on Environmental Eng.

1997 – 2000, Chairman of the College of Engineering Committee on Natural Resources

1997 – 1999, Chairman of the MSME Graduate Admissions Committee

1996 – Graduate Student Major Field Advisor for MSME Earth Resources students
 1996 – 1998, Chairman of the College of Engineering Committee on Environmental Eng.
 1996 – MSME Academic Affairs Committee – member
 1991 – 1995, College of Engineering Petroleum Engineering Committee - member.
 1994 – College of Engineering Standing Committee for Computing and Computer
 Science Education - member
 1992 – College of Engineering Interdisciplinary Committee on Surface and Subsurface
 Hydrology - member
 1992 – College of Engineering Graduate Student Committee - member
 1992 – Mineral Engineering Subcommittee of Academic Planning Committee - member

Honors:

2014 – The Cozzarelli Prize from the National Academy of Sciences for the best paper in engineering: Patzek, T. W., Male, F. and Marder M. “Gas production in the Barnett Shale obeys a simple scaling theory,” PNAS, **110**, 19731-19736, 2013.
 2013 – Honorary Member of the Society of Petroleum Engineers (highest honor)
 2012 – Title of Full Professor in Poland, decision of President of the Polish Republic, 4/12/12 (highest honor)
 2008 – The Lois K. and Richard D. Folger Leadership Chair, The University of Texas at Austin
 2008 – Cockrell Family Regents Chair #11, The University of Texas at Austin
 2006 – Associate Editor of Energy Tribune
 2005 – Editor of *Transport in Porous Media*
 2004 – July - August, Invited Professor at the Groupe Electrofluidodynamique, Laboratoire d'Etudes Aerodynamique, at the University of Poitiers, France
 2004 – February-June, Invited Professor at the Earth Sciences Department, TU Delft, The Netherlands
 2000 – 2003, Editor of the *Society of Petroleum Engineers Journal*
 2000 – “Honorary Book of the Polish Science”
 1998 – Visiting fellow at the Statoil Research Center in Trondheim, Norway
 1994 – Member of SPE Speakers’ Bureau Program
 1993 – 1994 - Distinguished Lecturer, Society of Petroleum Engineers
 1993 – Technical Editor, Society of Petroleum Engineers Publications
 1988 – Special Recognition Award from Shell for a comprehensive study of alternative recovery processes for the Belridge Diatomite
 1985 – Special Recognition Award from Shell for the formulation of a mechanistic model of foam flow in porous media
 1978 – 1979 –Fulbright Fellow, University of Minnesota, Chemical Engineering Department
 1973 – Undergraduate DAAD Fellow, Nuclear Research Center, Institute of Physical Chemistry, Jülich, Germany

Research Activities:

- Simple universal models of hydrocarbon production from shales
- Percolation and rock mechanical models of permeability development in hydrofractured shales
- Complexity, scalability (power laws), and technology-human interfaces
- Complex systems in deepwater exploration and production
- Physics and chemistry of unconventional gas and oil production
- Thermodynamics and ecology of near-future human existence on the Earth
- Energy flow in human activities, sustainability, renewability, biofuels
- Micro-scale (~1cm³) transport and mechanical properties of natural rocks: development of electronic core lab.
- Calculations of relative permeabilities and capillary pressures in drainage and imbibition, and in two- and three-phase flow of immiscible fluids.
- Micro-scale depositional models of sedimentary rocks: pore space reconstruction from Discrete Element depositional and compaction models with cementation, from 3D micro-focused CT images, and from statistical models based on 2D thin sections.
- Micro-scale rock damage: Discrete Element simulations of bi- and tri-axial rock compression

- experiments, generation and coalescence of microcracks, development of fractures.
- Strictly hyperbolic continuum relative permeability models in three-phase flows of immiscible fluids.
 - Continuum non-equilibrium models of counter- and co-current imbibition, spontaneous and forced.
 - Continuum models of damage evolution in almost impermeable, fragile rocks.
 - Development of stabilized finite-element algorithms to model two- and three-phase flow of multi-component fluids, with application to problems involving shocks and boundary layers.
 - Optimal control of fluid injection into low-permeability rocks through growing hydrofractures and with increasing rock damage; well testing.
 - Cradle-to-grave supervisory control of oilfield projects, satellite radar interferometry (InSAR) imaging, smart process-based controllers.
 - Imaging of hydrofracture growth through extended hydraulic impedance methods.
 - Simplified models of contaminant transport in the subsurface, policy issues with MTBE plumes.

Prof. Tadeusz W. Patzek**PUBLICATION LIST**

Up to date publications and media interviews are at

<http://gaia.pge.utexas.edu/publications.html>

Patzek's citation index is at

<http://scholar.google.com/citations?user=JHk7dtgAAAAJ&hl=en>

Invited lectures, papers at meetings:

1. "Constrained Optimization of Chemical Reactors", VIII National Congress of Chemical Engineers, Warsaw, Poland, September 1977.
2. "Optimization of Cold-Shot Ammonia Converters", National Colloquium in Reaction Engineering, Warsaw, Poland, November 1977.
3. "Mass and Energy Transport in Porous Catalyst Pellet in Multicomponent and Multireaction Systems", IX National Congress of Chemical Engineers, Łódź, Poland, September 1980.
4. "Capillary Forces Exerted by Liquid Drops Caught between Cylinders", Presentation at the Second International Colloquium on Drops and Bubbles, Monterey, CA, November 19 - 21, 1981.
5. "Stability of Drops on or Between Cylinders", Paper EC3, Presented at the 34th Annual Meeting of the American Physical Society, Division of Fluid Dynamics, Monterey, CA, November 22-24, 1981.
6. "Nonlinear Oscillations of Inviscid Free Drops", , Paper AE6, Presented at the 35th Annual Meeting of the American Physical Society, Division of Fluid Dynamics, New Brunswick, New Jersey, November 21 - 23, 1982.
7. "Nonlinear Oscillations of Translationally-Symmetric Inviscid Rotating Drops", Paper AE7, Presented at the 35th Annual Meeting of the American Physical Society, Division of Fluid Dynamics, New Brunswick, New Jersey, November 21 - 23, 1982.
8. "Deformation, Oscillation and Break-up of Charged Drops in Electric Field", Paper AE8 Presented at the 35th Annual Meeting of the American Physical Society, Division of Fluid Dynamics, New Brunswick, New Jersey, November 21 - 23, 1982.
9. "Development of a Mechanistic Foam Simulator", Paper at the 1984 Reservoir Engineering/Research Conference, Shell Development Company, Bellaire Research Center, Houston, TX, October 8 - 12, 1984.
10. "Review of the Mecca Steam Foam Drive Pilot Project in the Kern River Field, California", Paper at the 1984 Reservoir Engineering/Research Conference, Shell Development Company, Bellaire Research Center, Houston, TX, October 8 - 12, 1984.
11. "Development of a Mechanistic Foam Simulator: The Population Balance and Generation by Snap-Off", Paper SPE/DOE 14691 presented at the 1986 SPE/DOE Symposium on Enhanced Oil Recovery, Tulsa, Oklahoma, April 20 -23, 1986.
12. "Highlights of Kern River Steam Foam Pilots", Paper presented the 1986 Reservoir Engineering/Research Conference, Shell Development Company, Bellaire Research Center, Houston, TX, October 27 -29, 1986.
13. "Description of Foam Flow in Porous Media by the Population Balance Method", 61st Annual Colloid and Surface Science Symposium, American Chemical Society, Ann Arbor Michigan, June 21 -24, 1987.
14. Patzek, T. W., "Interpretation of Unocal's Dome-Tumbador Steam Foam Pilot", Invited Lecture, Los Angeles Chapter of the SPE, October 1987.
15. "Simulation of Shell's Kern River Steam Foam Pilots", Paper presented at the Reservoir Engineering/Research Conference, Shell Oil Company/Shell Development Company, Houston, TX,

October 17 - 19, 1988.

16. "Diatomite Process Comparisons", Paper presented at the Reservoir Engineering/Research Conference, Shell Oil Company/Shell Development Company, Houston, TX, October 17 - 19, 1988.
17. "Kern River Steam Foam Pilots", Paper SPE/DOE 17380 at the SPE/DOE Enhanced Oil Recovery Symposium, Tulsa, Oklahoma, April 17 - 20, 1988.
18. "Evaluation of Several Foam Pilot Tests, Including Simulator Predictions", Invited Speaker, SPE Forum on Reservoir Conformance Enhancement - Polymers, Gels and Foams, Crested Butte, Colorado, August 7 - 12, 1988.
19. "Modeling of Foam Flow in Porous Media by the Population Balance Method", Third International Colloquium on Drops and Bubbles", Monterey, CA, September 19-21 1988.
20. "Simulation of the Bishop Steam Foam Pilot", Paper SPE 18786 at the SPE California Regional Meeting, Bakersfield, CA, April 5 - 7, 1989.
21. "Belridge Diatomite Projects in 1990 Short-Term Oil Production Forecast", Waterflood Workshop, Shell Oil Company, Houston TX, June 5-6 1990.
22. "Waterflood Surveillance in Belridge Diatomite", Waterflood Workshop, Shell Oil Company, Houston TX, June 5-6 1990.
23. "Foams in Underground Storage and Waste Isolation", 13th Annual Industrial Liaison Conference, University of California, Berkeley, CA, March 13 -14, 1991.
24. "A Simulator for Nonisothermal Multiphase Transport of Multicomponent Organic Liquids in the Subsurface", Presentation at the Computer Applications in MSME, Sponsored by IBM, October 22, 1991.
25. "Three-Dimensional Oscillations of Liquid Drops", 1991 Annual Meeting of AIChE, Los Angeles, CA, November 17-22, 1991.
26. "Water Injection and Pattern Alignment Strategies for the South Belridge Diatomite", Diatomite Reservoir Compaction and Subsidence Workshop, Invited Paper, Chevron Oil Field Research Company, La Habra, CA, January 22-23, 1992.
27. "Problems with Waterflood in the South Belridge Diatomite", Invited Lecture, Mobil Exploration and Producing, U.S. Inc., Bakersfield, CA, March 2, 1992.
28. "Modeling of the Removal of Petroleum Hydrocarbons from Soil and Ground Water", National Meeting of the American Chemical Society, San Francisco, CA, April 5 - 10, 1992.
29. "Surveillance of South Belridge Diatomite", 1992 SPE Regional Meeting, Bakersfield, CA, April 13 - 16, 1992.
30. "Two and Three-Dimensional Oscillations of Free, Charged and/or Rotating Drops", Invited Materials Science Seminar, Department of Materials Science and Mineral Engineering, University of California, Berkeley, CA, May 1992.
31. "Earth Resource Engineering", Invited Presentation for the College of Engineering Advisory Board, University of California, Berkeley, CA, June 2, 1992.
32. "Microseismic Imaging of Massive Hydrofractures", Invited Lecture, Bellaire Research Center, Shell Development Company, Houston, TX, June 5, 1992.
33. Three-Phase, Nonisothermal, Multicomponent Pollutant Transport in the Subsurface, or How to Clean a Gasoline Spill, Mineral Engineering Seminar, Department of Materials Science and Mineral Engineering, University of California, Berkeley, CA, September 6, 1992.
34. "Use and Abuse of Numerical Simulators of Flow in the Subsurface", Invited Seminar, Nuclear Engineering Department, University of California, Berkeley, CA, October 12, 1992.
35. "Environmental Detective or a History of an Old Spill," Mineral Engineering Seminar, Department of

Materials Science and Mineral Engineering, University of California, Berkeley, CA, October 14, 1992.

36. "Passive Seismic Imaging of Massive Hydrofractures," Invited Lecture, Chevron Oil Field Research Company, La Habra, CA, November 10, 1992.
37. "Numerical Modeling of Transport of Petroleum Hydrocarbons in Soil and Groundwater," Invited Lecture, GE Corporate Research Center, Schenectady, New York, November 17, 1992.
38. "Numerical Modeling of Multiphase Transport of Multicomponent Organic Contaminants and Heat in the Subsurface," Fall Meeting of the American Geophysical Union, Paper Number H42B-11, San Francisco, CA, December 7-11, 1992.
39. "Compositional Models of Multiphase Flow in the Subsurface," Invited Lecture, Oak Ridge National Laboratory, Tennessee, January 8, 1993.
40. "Design of Hydrofracture Imaging Experiment in Diatomite," Opening Address, First Meeting of the California Oil and Gas Alliance (COGA), Bakersfield, CA January 15, 1993, Organized by T.W. Patzek (UCB/LBL) and Bob Whittset (LBL).
41. "Cleaning up Spilled Gasoline with Steam: Compositional Simulations," Paper SPE 25257, 12th SPE Symposium on Reservoir Modeling, New Orleans, LA., February 28 -- March 3, 1993.
42. "Modeling of Steam Cleanup in the Gasoline Spill Area at the Lawrence Livermore National Laboratory," 15th Annual Industrial Liaison Conference, University of California, Berkeley, CA, March 6 - 9, 1993.
43. "Design of an Oil-in-the-Tank Steamflood Pilot in Diatomite," Speaker and Moderator at the Second Meeting of the California Oil and Gas Alliance (COGA), Bakersfield, CA, March 17, 1993, Organized by T.W. Patzek (UCB/LBL) and Bob Whittset (LBL).
44. "Microseismic Imaging of Hydrofractures with the Aid of Conical Waves," 63rd Annual Meeting and International Exposition of the Society of Exploration Geologists, Washington, D.C., September 26 - 30, 1993.
45. "Field Applications of Foam for Mobility Improvement and Profile Control," SPE Distinguished Lecture, Golden Gate Section of the SPE, San Francisco, CA, October 14, 1993.
46. "Simulation of Foam Displacement in Porous Media", Paper SPE 26402, 68th Annual Technical Conference and Exhibition of the SPE, Houston, TX, 3 - 6 October 1993.
47. "Thermal Enhanced Recovery of Heavy Crude Oils in California", Four Hour Tutorial to PG&E, San Francisco, CA, October 15, 1993.
48. "Rigorous Modeling of Removal of Organic Contaminants from the Subsurface by Soil Venting," Paper presented at the 1993 National Meeting of AIChE, St. Louis, Missouri, November 7 - 12, 1993.
49. "Overview of Diatomite Projects Proposed for 1994 COGA," Speaker and Moderator at the Third Meeting of the California Oil and Gas Alliance (COGA), Bakersfield, CA January 16, 1994, Organized by T.W. Patzek (UCB/LBL) and Bob Whittset (LBL).
50. "Field Applications of Foam for Mobility Improvement and Profile Control," SPE Distinguished Lecture, Kern County Section of the SPE, Bakersfield, CA, February 16, 1994.
51. "Mechanisms of Enhanced Oil Recovery in Diatomite," Invited Lecture, Unocal Research Center, Brea, CA, February 17, 1994.
52. "Field Applications of Foam for Mobility Improvement and Profile Control," SPE Distinguished Lecture, Orange County of the SPE, Los Angeles, CA, February 17, 1994.
53. "Enhanced Oil Recovery in Diatomite," Invited Lecture, Lawrence Berkeley Director's Review, Berkeley, CA, March 8-9, 1994.
54. "Why Do We Need Complicated Flow Simulators?!", Invited Presentation, Environmental Engineering Session, 1994 Industrial Liaison Conference, University of California, Berkeley, CA, March 9, 1994.

55. "Career Planning for the 90's," Speaker at the Expert Panel Session, 64th Annual Western Regional Meeting, Long Beach, CA, March 23-25, 1994.
56. "Performance and Mechanisms of Waterflood in Diatomite" and "Feasibility of Steam Drive in Diatomite," Invited Presentations at the 1994 Annual Meeting of the Natural Gas&Oil Partnership (DOE), Tulsa, Oklahoma, April 21, 1994.
57. "Field Applications of Foam for Mobility Improvement and Profile Control", SPE Distinguished Lecture, Scientific Research Institute of Petroleum Exploration and Development, China National Oil Corporation, Beijing, May 22, 1994.
58. "Field Applications of Foam for Mobility Improvement and Profile Control," SPE Distinguished Lecture, Tienjin, Science and Technology Development Department, China National Offshore Corporation, China, May 23, 1994.
59. "Field Applications of Foam for Mobility Improvement and Profile Control," SPE Distinguished Lecture, Institute of Oil&Gas Production Technology, Bombay, India, May 26, 1994.
60. "Field Applications of Foam for Mobility Improvement and Profile Control," SPE Distinguished Lecture, Energy Research Division, KDM Institute of Petroleum Exploration, Dehra Dun, India, May 27, 1994.
61. "Field Applications of Foam for Mobility Improvement and Profile Control," SPE Distinguished Lecture, Institute of Reservoir Studies, Oil&Natural Gas Commission, Ahmedabad, India, May 30, 1994.
62. "A Forward and Inverse Model of Rock/Fracture Interactions During Steam Injection Through Vertical Hydrofractures," Presented at the National Meeting of SIAM, San Antonio, Texas, February 10-14, 1995.
63. Opening Lecture, Rogeland Research Institute, 2nd International Foam Workshop, "Field Applications of Foam for Mobility Improvement and Profile Control," Roros, Norway, March 1-3, 1995.
64. Cohen. D., "Network Simulations of Diffusion Driven Coarsening of Foam Inside a Porous Medium, Presented by David Cohen, First Award in the Ph.D. Student Paper Contest, 1995 Western Regional Meeting of the SPE, Bakersfield, CA, March 5-7, 1995.
65. "Feasibility of Steamflooding the Diatomite", Invited Lecture at the DOE NG&OR Partnership/Industry Workshop, Bakersfield CA, March 7, 1995.
66. "Modeling of Organic Contaminant Transport in Soils," Invited Lecture and Tutorial at the 1995 National Meeting of the APS, San Jose, CA, March 19-24, 1995.
67. "Steamflooding the Diatomites," Invited Lecture at the 1995 Director's Review Panel Meeting, Lawrence Berkeley Laboratory, CA, March 23, 1995.
68. "Feasibility of Steamflooding the Diatomite," Invited Presentation, 1995 Meeting of the DOE Natural Gas and Oil Recovery Partnership, Dallas, TX, April 11-12, 1995.
69. "Smart Neural Network Controllers for Fluid Injection into the Diatomite," Invited Presentation, DOE Contractors Meeting, Fountainhead, Oklahoma, June 25-28, 1995.
70. "Mechanistic Modeling of Foam Flow in Porous Media in Two-Dimensions," Invited Presentation, DOE Contractors Meeting, Fountainhead, Oklahoma, June 25-28, 1995.
71. "Modeling, Imaging and Controlling Fluid Injection in the Diatomite," Invited Lecture at the International Forum on Reservoir Characterization, Schlumberger-Doll Research, Ridgefield, Connecticut, October 16-17, 1995.
72. McGraw M., D. I. Kaplan, D. W. Fuerstenau, and T. Patzek, "The effect of particle size on the transport of hydrophobic colloids through unsaturated columns," Paper H12A-11, American Geophysics Union, Fall Meeting, Outstanding Student Paper Award, San Francisco, CA, Dec. 10 - 15, 1995.
73. "Thermal Methods for Recovery of Subsurface Contaminants," Seminar at the Earth Sciences Division of LBNL, December 15, 1995.

74. "Evaluation of Waterflood and Steamdrive Projects in Lost Hills and South Belridge Diatomite," Invited Lecture at the Industry Partners' Meeting, Chevron USA Production Company, Bakersfield, CA, January 10, 1996.
75. "Rigorous Modeling of Contaminant Removal from Subsurface by Soil Heating," Invited Lecture at the 1996 March Meeting of the American Physical Society, Paper C5.03, St. Louis, MO, March 18-25, 1996.
76. "Feasibility of Steamflooding the Diatomite," Invited Presentation, 1996 Meeting of the DOE Natural Gas and Oil Recovery Partnership, Dallas, TX, April 8-9, 1996.
77. Vegas-Landau, M., "Development of a High-Order Sequential Implicit-Explicit Simulator For the Discontinuous Flow of Fluids in Porous Media," First Award in the Ph.D. Student Paper Contest, 1996 Western Regional Meeting of the SPE, Anchorage, AK, 22-24 May 1996.
78. "Fluid Injection Into Tight Rocks," Poster presentation at the SEG Development & Production Forum, Vail, CO, July 7-12, 1996.
79. Nikraves, M., A. Garg, and T. W. Patzek, "Neural Network-Based Reconstruction of CT Scan Images," Chemical Physics Session, American Chemical Society, 32nd Western Regional Meeting and 35th Pacific Conference on Chemistry and Spectroscopy, Cathedral Hill Hotel, San Francisco, CA, October 30 - November 2, 1996.
80. Nikraves, M., T. W. Patzek, "Neural Network Knowledge-Based Modeling of Fluid Flow through Porous Media," Chemical Physics Session, American Chemical Society, 32nd Western Regional Meeting and 35th Pacific Conference on Chemistry and Spectroscopy, Cathedral Hill Hotel, San Francisco, CA, October 30 - November 2, 1996.
81. Patzek, T. W., A. R. Kovscek and P. J. Sullivan, "Inferring Aqueous Contaminant History with an Inverse Model," presented at the Seventh Annual West Coast Conference on Contaminated Soils and Groundwater, Manadaly Bay Resort, Oxnard, CA, March 10-13, 1997.
82. Patzek, T. W., "Problems and Opportunities in the Development of Hydrocarbon Resources in the Diatomites," Invited Lecture at the West Coast Petroleum Technology Transfer Center, Problem Identification Workshop, Bakersfield, CA, November 20, 1996.
83. Patzek, T. W., "Fluid Injection into Low Permeability Reservoirs," DOE OPA Review, Reston, Virginia, January 29, 1997. Highest Ranked ACTI Project.
84. Patzek, T. W., "Optimal Fluid Injection Policy and Producibility in Fractured Low Permeability Reservoirs," invited lecture at the Petroleum Technology Transfer Council Meeting, University of Southern California, Los Angeles, May 15, 1997.
85. Patzek, T. W., "Optimal Fluid Injection Policy and Producibility in Fractured Low Permeability Reservoirs," presentation at the Advanced Computational Technology Initiative (ACTI) Industry/DOE Meeting, Houston, TX, May 25, 1997.
86. Patzek, T. W. "Problems with Fluid Injection and Production in Low Permeability Rocks," Departmental Seminar, Department of Petroleum Engineering, Stanford, May 27, 1997.
87. Patzek, T. W. "Statistical Characterization of Metal-Contaminated Fills," SPE 38307, presented at the 1997 SPE Western Regional Meeting, Long Beach, California, 26 June 1997.
88. Patzek, T. W., "Fluid Injection and Control in Low Permeability Rocks," invited presentation, LBNL Director's Review, Berkeley, CA, November 19, 1997.
89. Patzek, T. W., "Fluid Injection and Control in the Lost Hills Diatomite," invited lecture, Chevron Technology Company, La Habra, CA, January 22, 1998.
90. Patzek, T. W., "Control of Fluid Injection into a Low-Permeability Rock. 1. Hydrofracture Growth," SPE 39698, presented at the SPE/DOE Improved Oil Recovery Symposium, Tulsa, Oklahoma, 19-22 April 1998.
91. Patzek, T. W., "Lossy Transmission Line Model of Hydrofractured Well Dynamics," SPE 46195, presented at the 1998 Western Regional Meeting in Bakersfield, CA, May 10-13, 1998.

92. Patzek, T. W., "Control of Fluid Injection – Hydrofracture Growth," invited lecture at the 9th International Scientific and Technical Conference "New Methods and Technologies in Petroleum Geology, Drilling and Reservoir Engineering," AGH, Cracow, Poland, July 2-3, 1998.
93. Patzek, T. W., "Pore Network Modeling – Trials and Tribulations," lecture at the Statoil Research Center, Trondheim, Norway, October 15, 1998.
94. Patzek, T.W., "Optimal control of fluid injection into tight rocks," presentation at the 1998 NG&OR DOE Partnership Annual Meeting, Houston, TX, November 9, 1998
95. Patzek, T.W., "Pore-network modeling of fluid micro-structures in disordered porous media," Departmental Seminar, MSME, February 4, 1999.
96. Patzek, T. W., "A pore network model of drainage and imbibition," Best paper at the 10th International Conference, "New Methods in Petroleum Geology, Drilling and Reservoir Engineering," AGH, Krakow, Poland, June 24-26, 1999.
97. Patzek, T. W., "A pore network model of drainage and imbibition – quantitative predictions," Seminar invited by Vice-President of Brown and Caldwell, Pleasant Hill, CA, July 29, 1999.
98. Patzek, T. W., "Pore Scale Processes Undergirding Multiphase Flow in Porous Media," Invited Lecture, S01-215, 1999 ASA, CSSA, SSSA Annual Meetings, Salt Lake City, Utah, October 31-Nov.4.
99. Patzek, T.W., "Mechanisms of Oil Recovery in Imbibition and Drainage," Keynote Speaker, Ministério da Educação, República Federative do Brasil, Centro Federal de Educação Tecnológica do Espírito Santo, U
100. Patzek, T.W., "Novel Approaches in Control of Large Oil Field Projects," Keynote Speaker, Ministério da Educação, República Federative do Brasil, Centro Federal de Educação Tecnológica do Espírito Santo, Universidade Federal do Espírito Santo, Technical Conference, "Petróleo – Ciência e Tecnologia," March 29, 2000.
101. Patzek T.W., "Surveillance and Supervisory Control of Large Oilfield Projects," presentation at the 1998 NG&OR DOE Partnership Annual Meeting, Houston, TX, November 10, 1999.
102. Patzek T.W., "Mechanisms of Oil Recovery and Validation of Corefloods," presentation at the 1998 NG&OR DOE Partnership Annual Meeting, Houston, TX, November 10, 1999.
103. Patzek, T. W., Paper SPE 58382, "Waterflood Surveillance and Supervisory Control," presented at the 2000 SPE/DOE Symposium on Improved Oil Recovery, Tulsa, OK, April 3-5, 2000.
104. Patzek, T. W., Paper SPE 58390, "Verification of a Complete Pore Network Model of Drainage and Imbibition," presented at the 2000 SPE/DOE Symposium on Improved Oil Recovery, Tulsa, OK, April 3-5, 2000.
105. Patzek, T.W., "Pore-Level Physics of Drainage and Imbibition," Invited Seminar, Numerical Methods Seminar [A. Chorin, D. Levy], LBNL, Building 50A, May 31, 2000.
106. Juanes R., "A Finite Element Method for Modeling Faults and Wells in Reservoir Simulation," Second Place Award in the Student Competition at the Western Regional Meeting, Long Beach, CA, June 19, 2000.
107. Patzek, T. W., "Novel Ways of Developing the Lost Hills Diatomite," Internal Company Workshop, Chevron Petroleum Technology Company, San Ramon, CA, July 11, 2000.
108. Patzek, T.W., "Use of Satellite InSAR Imaging in Surveillance and Control of Large Oil Field, Invited Lecture, 21st Workshop of the International Energy Agency, September 19-22, 2000, Edinburgh, Scotland.
109. Patzek, T.W., "Pore Level Physics of Drainage and Imbibition," GeoEngineering Seminar, U.C. Berkeley, CA, September 28, 2000.
110. Patzek, T.W., "Use of Satellite InSAR Imaging in Surveillance and Control of Large Oil Field, Invited Lecture, SPE Golden Section, San Ramon, CA, November 8, 2000

111. Patzek, T.W., "Pore Level Physics of Drainage and Imbibition," Invited Departmental Seminar, Chemical Engineering Department, Denmark Technical University, Copenhagen, June 15, 2001.
112. Patzek, T.W., "Pore Level Physics of Drainage and Imbibition in Mixed-Wet Rocks," Invited Departmental Seminar, Chemical Engineering Department, Rice University, Houston, December 15, 2001.
113. Patzek, T.W., "Pore Level Physics of Drainage and Imbibition in Mixed-Wet Rocks," Invited Departmental Seminar, Chemical Engineering Department, University of Houston, Houston, December 17, 2001.
114. Patzek, T.W., "Pore Level Physics of Drainage and Imbibition in Mixed-Wet Rocks," Invited presentation for the Review of the Earth Science Division, LBNL, Berkeley, CA, February 15, 2002.
115. Patzek, T. W., Paper SPE 75230: "Oil Deposits in Diatomites: A New Challenge for Subterranean Mechanics," presented at the SPE/DOE 13th Symposium on Improved Oil Recovery, Tulsa, OK, 17 April, 2002.
116. Patzek, T.W., "Pitfalls of two- and three-phase relative permeability models," Invited lecture, ChevronTexaco worldwide, from San Ramon, March 19, 2003.
117. Patzek, T.W., "On the ellipticity of three-phase relative permeability models," Invited presentation, C. J. Radke Colloidal Science Symposium, at 225th ACS National Meeting & Exposition, New Orleans, LA, March 23-27, 2003.
118. Patzek, T. W., "Ethanol from corn, just how unsustainable is it?" Invited lecture at the National Farmers' Union Annual Convention, Saskatoon, Saskatchewan, November 22, 2003
119. Patzek, T. W., "Ethanol from corn, just how unsustainable is it?" Invited Seminar, The Earth Systems Energy Seminar Series, Stanford University, December 1, 2003.
120. Patzek, T. W., "Subsurface Flow and Support Operators Method," Invited Seminar at the Applied Geosciences Department, TU Delft, Netherlands, March 18, 2003.
121. Patzek, T.W., "Exergy Analysis of Sustainability of a Biofuel Process: Ethanol from Corn," Invited Lecture, Biofuels Group, Shell Global Solutions, Amsterdam, Netherlands April 22, 2004.
122. Patzek, T. W., "Electronic Core Laboratory Concept," Invited Lecture, Environmental Hydrology Colloquium, University of Utrecht, Utrecht, Netherlands, April 26, 2004.
123. Patzek, T. W., "Sustainability of the Ethanol Biofuel Cycle," Invited Lecture, Environmental Hydrology Colloquium, University of Utrecht, Utrecht, Netherlands, April 26, 2004.
124. Patzek, T. W., "A Hydrologist's View of Biot's Theory," Invited Lecture, Geophysics Colloquium, Technical University of Delft, Delft, Netherlands, April 29, 2004.
125. Patzek, T. W., "Thermodynamics of the Corn-Ethanol Biofuel Cycle," Keynote Speaker in the Symposium *On the Sustainability of Bioethanol from Corn*, Chemical Engineering Department, TU Copenhagen, August 9, 2004.
126. Patzek, T. W., "Sustainability of the Corn-Ethanol Biofuel Cycle," Invited Seminar, The Earth Systems Energy Seminar Series, Stanford University, September 26, 2004.
127. Patzek, T. W., "Electronic Core Laboratory," Shell Distinguished Seminar Speaker, Department of Petroleum & Geosystems Engineering, University of Texas, Austin, November 8, 2004.
128. Patzek, T. W., "Electronic Core Laboratory," Invited Seminar, Stanford University, January 11, 2005.
129. Patzek, T. W., "Sustainability of the Corn-Ethanol Biofuel Cycle," Invited Seminar, Lawrence Berkeley Laboratory, Berkeley, January 17, 2005.
130. Patzek, T. W., "The Common Rock Fluid Model," Invited Seminar, LSU Petroleum Engineering Department, Baton Rouge, LA, February 14, 2005.
131. Patzek, T. W., "Thermodynamics of Biomass Production," Invited Speaker, Solar-to-Energy Workshop,

- Lawrence Berkeley Laboratory, Berkeley, March 28-29, 2005.
132. Patzek, T. W., "Sustainability of Biomass Production," Invited Speaker, IPIECA Biofuels Workshop, Buenos Aires, Argentina, 4th April, 2005.
 133. Patzek, T. W., "The Common Rock Fluid Model," Invited Speaker, Review of the Earth Sciences Division, Lawrence Berkeley Laboratory, Berkeley, April 6-7, 2005.
 134. Patzek, T. W., "The United States of America Meets the Finite Earth," Invited Speaker, National Press Club, Washington D.C., August 22, 2005.
 135. Patzek, T. W., "The Electronic Core Lab," Invited Speaker, Stanford-Harriot Watt Workshop, Tiburon, CA, August 28 – September 1, 2005.
 136. Patzek, T. W., "On Energy, Life, and Economics," Invited Speaker, Ag Biotech and Midwest Rural Development, Federal Reserve Bank of Chicago, 230 South LaSalle Street, Chicago, IL 60604-1413, Third Floor Conference Center, September 7-8, 2005.
 137. Patzek, T. W., "Are Biofuels Sustainable," Invited Speaker, Biodiesel Symposium, Air & Waste Management, San Diego, CA, November 4, 2005.
 138. Patzek, T. W., "Are Biofuels Sustainable," Keynote Speaker, Forum on the Sustainability of Ethanol at the Iowa State University, De Moines November 15, 2005.
 139. Patzek, T. W., "Are Biofuels Sustainable," Invited Speaker, Chemical Engineering Department, University of Houston, Houston, TX, December 2, 2005.
 140. Patzek, T. W., "Biot Theory for the Dummies," Invited Speaker, Geosciences Department, University of Houston, Houston, TX, December 2, 2005.
 141. Patzek, T. W., "Are Biofuels Sustainable," Invited Speaker, SPE Gold Gate Section Meeting, Chevron La Habra, CA, January 19, 2006.
 142. Patzek, T. W., "Are Biofuels Sustainable," Invited Speaker, Physics Department Lunch Seminars, Berkeley, CA, January 20, 2006.
 143. Patzek, T. W., "Corn Ethanol: A Fuel of the Future or Illusion," Invited Speaker, Public Debate at Wilson College, Chambersburg, PA, January 30, 2006.
 144. Patzek, T.W., "The Real Biofuel Cycles" and "Thermodynamics of Biomass Production," Two Invited Lectures at the Closed-Door Ethanol Forum Sponsored by BP, BP US Headquarters, New York, March 10, 2006.
 145. Patzek, T.W., "The Real Biofuel Cycles," Invited Colloquium at the Chemical Engineering Department, Berkeley, CA, April 5, 2006.
 146. Patzek, T.W., "The Real Biofuel Cycles," The Carhart Distinguished Lecture, Dakota Wesleyan University, SD, April 6, 2006.
 147. Patzek, T.W., "Are Biofuels Sustainable," Keynote Speaker at the Annual Symposium of the South Dakota Academy of Sciences: "Energy Resources in South Dakota – Issues and Global Concerns", SD, April 7, 2006.
 148. Patzek, T.W., "The Earth, Biofuels, and Reality," Invited Lecture at the Climate Change & the Future of the American West Conference, Natural Resources Law Center, University of Colorado, June 6-10, 2006.
 149. Patzek, T.W., "The Earth, Biofuels, and Reality," Invited Lecture at the Land Institute Workshop, Matfield Green, Kansas, June 11-16, 2006.
 150. Patzek, T. W., "Agriculture, Biofuels, and the Earth," Invited Lecture at the 10th Workshop on Bioenergy by the International Consortium of Agricultural Biotechnology Research, Ravello, Italy, June 29 – July 2, 2006.
 151. Patzek, T. W., "Overview of Ecological Issues with Biofuel Production," Invited Lecture at the 2006

- Jason Group Summer Study Session, General Atomics, San Diego, July 17, 2006.
152. Patzek, T. W., "Overview of Subsidence in the Lost Hills, CA, Oilfield," Invited Lecture at the West Coast PTTC Workshop, Long Beach, CA, July 27, 2006.
 153. Patzek, T. W., "Possible Impact of Large Scale Biofuels in US," Future Fuels Challenge: Alternative Transportation Fuels, Center for Strategic and International Studies, 1800 K Street, Washington, DC, September 12, 2006
 154. Patzek, T. W., "Bioethanol: An Energy-Efficient Fuel or Not? Is There a Licensing Opportunity or Not?" Public Debate, Licensing Executives Society, 2006 Annual Meeting, New York, NY, September 13, 2006.
 155. Patzek, T.W., "Economic and Policy Issues: Comparative Values," Invited Lecture, Biomass to Chemicals and Fuels: Science, Technology and Public Policy, James Baker III Institute for Public Policy, Baker Hall, Rice University, Houston, TX, September 25-26, 2006.
 156. Patzek, T. W., "The Hubbert Peaks," Invited Lecture, Energy Institute, University of Wisconsin, Madison, October 5, 2006
 157. Patzek, T. W., "What Will Biofuels Do To the Earth?" Aldo Leopold Lecture, University of Wisconsin, Madison, October 5, 2006
 158. Patzek, T.W., "Energy, human activities and sustainability of our culture," Invited Lecture at the Searching for Rules of Simplicity in the Thickets of Complexity Workshop, Mountain Sky Ranch, Emigrant, MT, October 10-15, 2006.
 159. Patzek, T. W., "The Finite Earth and Us," Invited Seminar ESPM, U.C. Berkeley, October 16, 2006.
 160. Patzek, T. W., "The Finite Earth and Us," Geoengineering Seminar, CEE, U. C. Berkeley, October 18, 2006.
 161. Patzek, T. W., "Mythology and Ecology of Biomass Production," Invited Seminar, Earth Sciences Division, LBNL, Berkeley, CA, November 3, 2006.
 162. Patzek, T. W., "Mythology and Ecology of Biomass Production," Invited Seminar, ChemE Department, Rice University, Houston, TX, December 1, 2006.
 163. Patzek, T. W., "Ethanol Myths and Facts," Televised debate by remote link from Houston, Annual Convention of the National Farmers Union, December 1, 2006, Saskatoon, Saskatchewan, Canada.
 164. Patzek, T. W. "Hubbert Peaks and US," Invited Lecture at the Department of Petroleum and Geosystems Engineering, UT Austin, February 19, 2007
 165. Patzek, T. W., "Biofuels and Confusion Surrounding Them," Invited Lecture at the Agronomy Department, Washington State University, Pullman, April 23, 2007.
 166. Patzek, T.W., "The Global Biofuel Confusion," Personal invitation, European Conference of Ministers of Transport, Joint OECD/ECMT Transport Research Centre, June 7 -- 8, 2007, Paris, France, Paris, June 7-8, 2007.
 167. Patzek, T.W., "The Global Biofuel Confusion," Invited Lecture and Evaluator at the Natural Systems Agriculture, Graduate Research Fellowship, Summer Workshop 2007, June 10-16, 2007, Salina and Matfield Green, Kansas.
 168. Patzek, T. W., Cellulosic Ethanol Debate, Innovative Ideas for a New West, July 13-15, 2007, Missoula, Montana.
 169. Patzek, T. W., "How Can We Outlive Our Way of Life?" Invited Talk, Business Incubator, August 9, 2007, Redwood City, CA.
 170. Patzek, T. W., "How Can We Outlive Our Way of Life?" Keynote Dinner Speech at the Ministerial OECD Round Table on Sustainable Development, "Biofuels: Is the Cure Worse than the Disease?" OECD Headquarters, Château de la Muette, 2 rue Andre Pascal, 75016 Paris, September 11, 2007.

171. Patzek, T. W., Invited Participant at the Ministerial OECD Round Table on Sustainable Development, "Biofuels: Is the Cure Worse than the Disease?" OECD Headquarters, Château de la Muette, 2 rue Andre Pascal, 75016 Paris, September 12, 2007.
172. Patzek, T. W., "False Solutions: Biofuels," Invited Speaker, International Forum on Globalization, Confronting the Global Triple Crisis: The Problems and the Solutions, George Washington University, Lisner Auditorium, September 14 – 16, 2007, Washington, D.C.
173. Patzek, T. W., "Solar Energy," Econowusa, Marin County Community Meeting, 575 Sir Francis Drake Blvd., Greenbrae, CA, October 2, 2007.
174. Patzek, T. W., "Agrofuel Systems Ecology," Invited Lecture, American Agricultural Law Symposium, San Diego, CA, October 19 - 20, 2007.
175. Patzek, T. W., "Agrofuel Systems Ecology," Invited Lecture, Anthro 112B "Synthetic Biology," Berkeley, CA, Kroeber Hall 115, 15:30-17:00, October 16, 2007.
176. Patzek, T. W., "How Can We Outlive Our Way of Life?" Public Debate, The Future of Automotive Energy: Fossil fuels, Agro Fuels or Photovoltaic Cells, The Swedish Institute of Transportation (SIKA) and the Center for Sustainable Development (CHU), Stockholm, Sweden, November 6, 2007.
177. Patzek, T. W., "How Can We Outlive Our Way of Life? Invited Lecture, CE 92, Berkeley, CA, Davis Hall 502, November 15, 2007.
178. Patzek, T. W., "How Can We Outlive Our Way of Life?" Invited Seminar, Environmental Science Group, Berkeley, CA, Davis Hall 406, February 1, 2008.
179. Patzek, T. W., "Failure of Green Revolution," Invited Lecture, Reclaiming Our Healthy Future - Biofuels: Energy, Food and People, Econowusa, Hills Club, 7 - 10pm, Berkeley, CA, March 13, 2008.
180. Patzek, T. W., "Failure of Green Revolution," Invited Lecture, Reclaiming Our Healthy Future - The 26th National Pesticide Forum, Clark Kerr Campus, Berkeley, Room 1, 4:30 - 6pm, CA, March 15, 2008.
181. Patzek, T. W., Invited Speech, The Right to Food: How Can the UN Respond to the Global Food Crisis? Wednesday April 23, 2008: 9:00 AM – 5:00 PM, Friedrich-Ebert-Stiftung, German Mission to the UN, 2nd Floor, 871 UN Plaza (1st Avenue at East 49th Street), New York, New York.
182. Patzek, T. W., "Green Revolution and Agrofuels," Hydrology Seminar – Department of Civil Engineering, Massachusetts Institute of Technology, 3 - 4 pm, Cambridge, Massachusetts, April 25, 2008.
183. Patzek, T. W., "Green Revolution and Agrofuels," Invited Lecture, Seventh International Ecocity World Summit Conference, Nob Hill Masonic Center, Main Hall, 1100 California Street, San Francisco, CA, Grace Room 1, 1:30 – 3:00 pm, April 26, 2008.
184. Patzek, T. W., "Green Revolution and Agrofuels," Invited Lecture, Lyman Handy Colloquium Series - HEDCO Building, 12:50 - 2 pm, University of Southern California, Los Angeles, CA, May 1, 2008.
185. Patzek, T. W., "Green Revolution and Agrofuels," Invited Seminar, Woods Institute for the Environment, Energy Seminar - Building 420, Room 40, 4:15 - 5:15 pm, Stanford University, Palo Alto, CA May 14, 2008 (Ranked by the student participants as the most popular seminar of the Spring Semester).
186. Patzek, T. W., "Peak Oil, Peak Gas, and the Advancement of Technology," XIX Międzynarodowa Konferencja Naukowo-Techniczna i Edukacyjno-Szkoleniowa: Nowe Metody i Technologie w Geologii Naftowej, Wiertnictwie i Geoinżynierii Eksploatacji Otworowej i Gazownictwie, Zakopane, Poland, June 19, 2008.
187. Patzek, T. W., "The Visible, Sustainable Sunshine Farm," Invited Lecture, Mountain Sky Ranch, Montana, Emergent Behaviors and Complex Systems Conference, October 14-17, 2008.
188. Patzek, T. W., "Agriculture: Tendencies and Deficiencies," Invited Lecture, International Conference on Natural Resources and the Caribbean: Governance, Social Cohesion and Sustainable Development,

- Hayatt Cancún Caribe, Blvd. Kukulcán, Km. 10.5, Quintana Roo, cp. 77500, México, December 8-10, 2008.
189. Patzek, T. W., "Biofuel System Limitations," Texas Biofuels and BioRenewables Initiative (TexBRI), Rice University Engineering Building (Mechanical Laboratory Bldg, Conference Rm 253), March 2, 2009.
190. Patzek, T. W., "Biofuel Vignettes," Food Boot Camp, Knight Science Journalism Fellowships, MIT Faculty Club, 50 Memorial Drive, The Sloan Building, 6th Floor, March 26, 2009.
191. Patzek, T. W., "Unconventional Gas in the U.S.," XX Międzynarodowa Konferencja Naukowo-Techniczna i Edukacyjno-Szkoleniowa: Nowe Metody i Technologie w Geologii Naftowej, Wiertnictwie i Geoinżynierii Eksploatacji Otworowej i Gazownictwie, Kraków, Poland, May 28, 2009.
192. Patzek, T. W., "Carbon storage and sequestration" Expert Panel at the XX Międzynarodowa Konferencja Naukowo-Techniczna i Edukacyjno-Szkoleniowa: Nowe Metody i Technologie w Geologii Naftowej, Wiertnictwie i Geoinżynierii Eksploatacji Otworowej i Gazownictwie, Kraków, Poland, May 29, 2009.
193. Patzek, T. W. "Carbon The Future Role of Biofuels," Public Debate at the International Farm Managers Association Conference, Brown Ballroom at Bone Student Center, Illinois State University Campus, 8-9:30 am, July 24, 2009.
194. Patzek, T. W., "The Future of Natural Gas in the U.S.," Invited presentation, The Dallas Petroleum Club, Dallas, TX, 7-9 pm, November 3, 2009.
195. Patzek, T. W., "The New Farm – Producing Food and Fuel in an Era of Declining Energy," Invited Lecture, Focus on Farming Conference VI, The Tulalip Resort and Conference Center, Seattle, WA, 9:30-10:30, November 5, 2009.
196. Patzek, T. W., "Peaks Everywhere?" Invited Lecture, Sierra Club, February 2, 7:00 p.m. at the TSTA building, 316 W. 12th St., Austin, TX, 2010.
197. Patzek, T. W., "The Physical Limitations on Mining Natural Earth Systems," Invited Panel, Presented at the 2010 AAAS Annual Meeting, February 21, 8:30 -- 11:30 a.m., San Diego, CA.
198. Patzek, T. W., "Unconventional Natural Gas," Invited presentation at the Recent Developments in the Natural Gas Market, The McCombs School of Business, UT Austin, April 8, 2010.
199. Patzek, T. W., "Unconventional Natural Gas," Invited presentation at the Engineering Advisory Board Meeting, The Cockrell School of Engineering, UT Austin, April 9, 2010.
200. Patzek, T. W., "The Deepwater Horizon Spill: Where Do We Go From Here?" Invited presentation at the Oil Spill Forum, UT Austin Energy Institute, UT Austin, May 18, 2010.
201. Patzek, T. W. Energy and Environment Subcommittee of the Energy and Commerce Committee, 06/09/10 Briefing, Washington, D.C.
202. Patzek, T. W., Tutorial on Offshore Drilling and Petroleum Engineering, NPR Headquarters, 635 Massachusetts Ave. NW, Washington D.C., June 11, 2010, 11:00 am – 12:45 p.m.
203. Patzek, T. W., "Energy, U.S.A. and the Finite World," Keynote speaker, Texas Exes, Alumni Center, Connally Ballroom, Austin, TX, June 25, 9:00--10:15 am.
204. Patzek, T. W., "Educating a well-rounded petroleum engineer: a few difficulties," Invited presentation at the 2010 SPE Colloquium on Petroleum Engineering Education, Marina Del Rey, CA, August 2-4, 2010.
205. Patzek, T. W., "Complexity and Human Failure," at the 2nd Annual Louisiana Oil and Gas Symposium, "The BP Gulf Oil Spill: Long-term Impacts and Strategies," Baton Rouge, LA, August 16-17, 2010.
206. Patzek, T. W., "U.S. Energy Demand, Offshore Oil Production and BP's Macondo Well Spill," Invited Seminar at the Physics Department, UT Austin, September 12, 2010.
207. Patzek, T. W., "Food, Agrofuels and Green Revolution," Sierra Club Lecture, September 14, 2010, 7:00 - 8:30 pm, Scholz Beer Garten, 1607 San Jacinto, Austin, TX.

208. Patzek, T. W., "Energy, The U.S., and The Finite World," Keynote speaker, 11th Renewable Energy Roundup & Green Living Fair, Fredericksburg, TX, September 25, 2010, 1-2 p.m.
209. Patzek, T. W., "Fossil Energy Primer," Senate Staff Briefing, 10/7/2010, 10:00-12:00 am, SVC 203/202, Capitol Visitor Center, Washington D.C.
210. Patzek, T. W., "Peaks Everywhere!" Invited Lecture at the 6th National Meeting of the Association for Study of Peak Oil (ASPO), Hyatt Regency, Washington, D.C., October 9, 2010.
211. Patzek, T. W., "Physical Limitations on Mining Natural Earth Systems" Invited presentation at ERCOT, 800 Airport Road, Taylor, TX 76574, October 29, 10:00 - 12:00 a.m.
212. Patzek, T. W., "Global Energy Demand and Peak Oil" Invited Seminar at the UT's Department of Astronomy, RLM 15.216B, Austin, TX, November 2, 2010.
213. Patzek, T. W., "Fossil fuels and Clean Technologies," Keynote Panel, NGO&G Summit US, Barton Creek Resort, Austin TX, November 5, 2010, 11:50 – 12:50.
214. Patzek, T. W., "Our Future," Dinner Speech at the Siemens Awards Dinner, Texas Memorial Museum, Austin, TX, November 6, 2010, 6:30 – 9 pm.
215. Patzek, T. W., "Unconventional Resources in US: Potential & Lessons Learned," Keynote Lecture at the 22nd International Conference, Oil-Gas AGH 2011, Cracow, June 9, 2011.
216. Patzek, T. W., "Physical Limitations on Mining Natural Earth Systems," Expert Panel at the 22nd International Conference, Oil-Gas AGH 2011, Cracow, June 10, 2011.
217. Patzek, T. W., "Producing Oil & Gas Shales," Presentation to Pioneer management, Austin, TX, July 19, 2011.
218. Patzek, T. W., "Producing Oil & Gas Shales," Presentation to Statoil management, Calgary, Alberta, Canada, August 09, 2011.
219. Patzek, T.W., "Sustainability: How far are we from thou?" 96nd Ecological Society of America Annual Meeting, Austin Convention Center, August 10, 3:20pm (2011).
220. Patzek, T. W., "Energy in our future," Invited Lecture, How can we influence ag and medicine in achieving the necessary transition to a dynamic - resilient - sustainable future, Mountain Sky Guest Ranch, Emigrant, Montana, September 21 – 26, 2011.
221. Patzek, T. W., "Producing Unconventional Wells," Invited Lecture at the Permian Basin Conference, "Reducing The Cost Of Drilling And Completions And Economically Maximizing Oil Recovery In The Permian Basin's Unconventional Plays," Hilton Plaza, Midland, Texas, September 26-27, 2011.
222. Patzek, T.W., "Sustainability: How far are we from thou?" Invited Lecture, Central Texas Chapter of the World Future Society (CTXWFS), Marie Calendar's, 9503 Research Blvd. Austin, TX 78759, October 19, 2011, 6-9p.m.
223. Patzek, T. W., "Powering the World: Offshore Oil & Gas Production," LAMP Lecture, Thompson Conference Center, Austin, TX, Room 2.102, January 26, 2012, 11-12:15.
224. Patzek, T.W., "State of the Department of Petroleum and Geosystems Engineering," Presentation for the Abu Dhabi National Oil Company group, Chairman's Conference Room, CPE, Austin, TX, February 1, 2012, 9-10 a.m.
225. Patzek, T. W., "Global Energy Demand and Offshore Oil & Gas Production," UT Forum Lecture, Thompson Conference Center, Austin, TX, February 3, 2012, 1:30-2:45.
226. Patzek, T. W. "Offshore Oil & Gas Production," Invited Seminar, Department of Geology, University of Wisconsin, Madison, February 14, 2012, Geology Hall, Room 140, 12:30-1:30 p.m.
227. Patzek, T. W., "Physics of Hydrocarbon Recovery in Shales," Invited Presentation, Shell/UT Research Kickoff Meeting, Bureau of Economic Geology, Pickle Campus, Austin TX, Large Conference Room, February 16, 2012.

228. Patzek, T. W., "The Gulf Oil Debacle and Our Energy Dilemma," Invited Lecture, Energy Institute Advisory Council Meeting, President's Suite, UT Club, 9th floor, April 5, 2012, 10:30 a.m.
229. Patzek, T.W., "The Physical Limitations on Mining Natural Earth Systems," Invited Lecture, Sierra Club, Witte Museum Auditorium, 801 Broadway, San Antonio, TX, April 17, 2012, 6:30 – 8:30 p.m.
230. Patzek, T.W., "The Physical Limitations on Mining Natural Earth Systems," Invited Presentation to Richard G. Kidd, Defense Undersecretary, ECJ, Small Conference Room, May 18, 2012, 10:15 a.m.
231. Patzek, T. W., "UT's Petroleum Department and Norway," Invited Presentation to Honorable Ola Borten Moe, Norwegian Minister of Petroleum and Energy , ECJ, Conference Room, June 6, 2012, 10:15 a.m.
232. Patzek, T.W., "Physics of gas recovery from shales," 96th International Geological Congress, Brisbane, Australia, Convention Center, Wednesday, August 8, 2012.
233. Patzek, T.W., "Organization of an Unconventional Gas Engineering Program," Presentation to the Consul General of the Argentine Republic, Mr. Daniel O. Deodato, Chairman's Conference Room, CPE, UT Austin, August 15, 2012.
234. Patzek, T. W. "Science and Technology," Invited Presentation to James Dupree, VP Gulf of Mexico, BP, ECJ, Conference Room, September 15, 2012, 11 a.m.
235. Patzek, T. W. "Science and Technology," Invited Presentation at the Pioneer's Game Changers Conference, Omni Mandalay Hotel at Las Colinas, Nepal Room, Irving, Texas, 09/26/2012, 9-12:30 p.m.
236. Patzek, T.W., "Nexus of Unconventional Resources and Water," Plenary panel presentation, GCAGS Plenary Panel: A Glimpse into the 21st Century, Energy, Economy, Austin Convention Center, Room 17A/B (4th floor, north side), October 22, 2012.
237. Patzek, T. W., "Energy supply for the world and the future of drilling," Texas Exes Dinner Speech, Tyler Texas, Country Club, 7-9 p.m., October 25, 2012.
238. Patzek, T. W., "Welcome to PGE," Parent/student presentation, Explore UT, CPE 2.204, March 2, 2013, 11:00-12:40 p.m.
239. Patzek, T. W., "Challenges of Oil & Gas Industry in the 21st Century," Invited SPE Chapter Seminar, Brookhaven College Geotechnology Institute, March 27, 2013, 3939 Valley View Lane, Framers Branch, Dallas, TX 75244, 12 - 1 p.m.
240. Patzek, T. W., "Petroleum Research at UT," Invited Presentation at the UT Energy Summit, Houston, TX, 1:00 -- 1:30 pm, April 2, 2013.
241. Patzek, T. W., "Producing gas from shales," Invited Presentation at the UT Energy Institute Advisory Board Meeting, UT Austin, CPE2.802F, April 5, 2013, 2:15 - 2:45 p.m.
242. Patzek, T. W., "Producing gas from shales," Presentation at the SUTUR Meeting, UT Austin, Texas Union, 3.202, 1:00 -- 1:30 pm, April 16, 2013.
243. Patzek, T. W., "Industrial and Academic Research in U.S.," Presentation at the ConocoPhillips Visit, UT Austin, Brons Room, April 19, 2013, 8:00 - 9:00 a.m.
244. Patzek, T. W. "The Big Energy Question: Biofuels at a Crossroads, Invited Panel, National Geographic Headquarters, 1146 16th Street NW, Washington DC 20036, June 26, 2013, 3:45 – 6:00 p.m.
245. Patzek, T.W., Advances in oil & gas production from shales in U.S., Presentation to French Parliamentarians, meeting organized by the French Consulate in Houston, UT Austin, CPE2.502H, July 18, 2013, 1:30 - 3:45 p.m.
246. Patzek, T. W., Producing gas from shales, Invited Seminar, Polish Oil and Gas Company (PGNIG SA), Head Office, 25 Kasprzaka Str. Warsaw, Poland, August 8, 2013, 11:00 - 2 p.m.
247. Patzek, T. W., Producing gas from shales, Invited Seminar, University of Bergen, Physics Department, August 22, 2013, 12:00 - 1 p.m.

248. Patzek, T. W., Producing gas from shales, Invited presentation, The University of Texas, Cockrell School of Engineering, 2.102 Thompson Conference Center, September 4, 2013.
249. I did not account for most of my presentations in 2014, but here are some.
250. Patzek, T.W., "Physics of Hydrocarbon Recovery in Shales," Invited Lecture, Austin Geological Society, ROC, PAC 196, Austin TX, February 3, 2014, 6:30-8:00 p.m.
251. Patzek, T. W., "PE Science and Technology Certain Key Research Topics," Convening presentation, Upstream Petroleum Technology, KAUST, Nov. 13 – 14, 2014.
252. Patzek, T. W., "Production of Hydrocarbons from Shales as a Multiscale Problem in Physics and Chemistry," AIChE Annual Meeting, Interfacial Phenomena Session, Invited lecture, Nov 17, 2014, 208 (Hilton Atlanta) 3:15 p.m.

REFEREED PUBLICATIONS

Archival Journals

1. Burghardt, A. and T. W. Patzek, "Optimization of Cold-Shot Reactors - Part I" (in Polish), *Inżynieria Chemiczna (Chemical Engineering, Quarterly of the Polish Academy of Sciences)*, **6** 1 41-69, 1976.
2. Burghardt, A. and T. W. Patzek, "Constrained Optimization of Cold-Shot Converters," *The Chemical Engineering Journal*, **16** 153-164, 1978.
3. Burghardt, A. and T. W. Patzek, "Optimization of Cold-Shot Reactors - Part II," *Inżynieria Chemiczna i Procesowa (Chemical and Process Engineering, Quarterly of the Polish Academy of Sciences)*, **10** 3 439-460, 1980.
4. Burghardt, A. and T. W. Patzek, "Optimization of Cold-Shot Reactors - Part III", *Inżynieria Chemiczna i Procesowa (Chemical and Process Engineering, Quarterly of the Polish Academy of Sciences)*, **10** 4 703-726, 1980.
5. Burghardt, A. and T. W. Patzek, "Mass and Energy Transport in the Porous Catalyst Pellet for Multicomponent and Multireaction Systems," (in Polish), *Inżynieria Chemiczna i Procesowa (Chemical and Process Engineering, Quarterly of the Polish Academy of Sciences)*, **2** 4 715-738, 1981.
6. Falls, A. H., G. J. Hirasaki, T. W. Patzek, D. A. Gauglitz, D. D. Miller and T. Ratulowski, "Development of a Mechanistic Foam Simulator: The Population Balance and Generation by Snap-Off", *SPE Reservoir Engineering*, **3** 3 884-893, 1988.
7. Patzek, T. W. and M. T. Koinis, "Kern River Steam Foam Pilots", *Journal of Petroleum Technology*, **42** 4 486-496, 1989.
8. Patzek, T. W., R. E., Benner, O. A., Basaran and L. E. Scriven. "Nonlinear Oscillations of Inviscid Free Drops", *Journal of Computational Physics* **97** 2 489-515, 1991.
9. Patzek, T. W., "Self-Similar Collapse of Stationary Bulk Foams", *AIChE Journal*, **39** 10 1697-1707, 1993.
10. Adenekan, A. E., T. W. Patzek and K. Pruess, "Modeling of Multiphase Transport of Multicomponent Organic Contaminants and Heat in the Subsurface: Numerical Model Formulation", *Water Resources Research Journal*, **29** 11 3727-3740, 1993.
11. Patzek, T. W., O. A. Basaran, R. E. Benner and L. E. Scriven, "Nonlinear Oscillations of Two-Dimensional Rotating Drops," *Journal of Computational Physics*, **116**, 3-25, 1995.
12. Kovscek, A. R., T. W. Patzek, and C. J. Radke, "Mechanistic Prediction of Foam Displacement in Multidimensions: A Population Balance Approach," *Chemical Engineering Science* **50** 23 3783-3799, 1995.
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Life-Itself Blog

Between 07/31/2012 and 8/30/2013 there were 11,722 unique views of the particular blogs listed above. 92,183 people read the blog as of 11/06/2013; 103,505 people as of 1/26/2014; and 151,165 people as of 1/5/2015.

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4. Amelia Rufer, "Ethanol Ad Exaggerates," PolitiFact: Monday, July 4th, 2011.
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17. Gonzalez, Angel, "Oil Firms to Deploy New Containment Device for Deepwater Spills," The Wall Street Journal, April 15, 2011.
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19. Amy Thornton, Professor appointed to ocean safety team after oil spill in Gulf, Daily Texan, Published: Tuesday, March 29, 2011
20. Ben Casselman and Russell Gold, Device's Design Flaw Let Oil Spill Freely Government-Funded Study Finds Blowout Preventer Couldn't Handle Worst-Case Scenario in Gulf; BP Gets a Small Boost, The Wall Street Journal, March 24, 2011.
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22. Lopez, Piriya, "Salazar Names Members of Ocean Energy Safety Advisory Committee to Guide Oil and Gas Regulatory Program Reform," Vadvert.co.uk, Posted on 03 17, 2011.
23. Snow, Nick, Share "Salazar picks Ocean Energy Safety Advisory Committee lineup," OG&J, Posted

on 3/15/2011.

24. Brenneman, R., "The most important video to watch in 2011," eats shoots 'n leaves, Posted on February 9, 2011.
25. Price, A., "UT shifts slowly from oil-black to green. Long wedded to petroleum industry, university has launched an array of environmental and alternative energy initiatives," American Statesman, Published: 7:51 p.m. Saturday, Jan. 29, 2011.
26. Faille, C., "Ethanol, the Next Generation: Why Corn Is Out and Cellulose Is In," DailyFinance, Posted 1:30 PM 02/02/11.
27. Kjetil Malkenes Hovland, "Peak Coal i 2011," Takniskukeblad, Publisert: 04.01.2011 kl. 15:41.
28. Ken Salazar, The Secretary of the Interior, Nomination Letter for the Ocean Energy Safety Advisory Committee, Washington D. C., January 19, 2011.
29. "Why are climate scientists ignoring peak oil and coal?" Ourfutureplanet, Januray 6, 2011.
30. Anonymous spin with a changed title, "The Hype Surrounding Peak Coal," Posted on OilPrice.com on 11 January 2011 - 16:18.
31. Luis de Sousa, "Peak Coal: the Olduvai perspective," posted by on January 10, 2011 - 11:49am.
32. "Deep Water – The Gulf Oil Disaster and the Future of Offshore Drilling, Report to the President," National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, 1/11/2011, page 229.

BP Gulf of Mexico Spill

For an up-to-date list and links, please click **here** or go to
<http://gaia.pge.utexas.edu/publications.html>

- Multiple appearances on the BBC ("Panorama" TV documentary, 6/21/2010; several radio interviews); NPR (On Point (6/4/2010), Diane Rehm Show (6/1/2010) Morning Edition (6/16/2010); ABC (National Evening News with Diane Sawyer 3 times); CNN (360 With Allison Cooper, 6/12/2010); CNBC; CBS; KPFA Berkeley; Radio talk shows in the U.S. and Canada, etc.
- Interviews for The New York Times, The Wall Street Journal, Los Angeles Times, The Washington Post, The Guardian, The Sunday Times, Telegraph, Agence Frances Presse, Associated Press, Reuters, Bloomberg, Danish Public Radio, and many others.
- May 01 - June 21, 2010, hundreds of hits on Google News with "patzek" as the keyword, and over 200,000 hits on Google Web.

Agrofuels, Agriculture, Sustainability – Mass Media

- Appeared in the Haynesville Shale documentary.
- Type into Yahoo "Patzek ethanol," 107,000 entries; "Patzek solar" 40,700 entries; "Pimentel Patzek," 63,000 entries, "Patzek Energy Tribune," 2030 entries; "Patzek NPR," 1190 entries; "Patzek BBC," 4510 entries; "Patzek CNN," 1920 entries; "Patzek Khosla," 1680 entries. Accessed 06/25/08, 2:00 pm.
- June 19, 2008, Appeared in PBS Documentary, "Ethanol Maze," Perry Stoner, Producer, N E T Television, Nebraska, U.S.
- June 4, BBC World News interview.
- November 14 and November 16, 2007, Interviews for BBC World Service (Transcript of the first interview is posted at *Biofuels bonanza facing 'crash'* by Roger Harrabin, BBC News Science/Nature, November 15, 2006.)

- Environment Analyst, BBC News, Valencia
- Press Interview, Etanol – guld eller döda skogar? Svenska Dagbladet, 2007-11-10, by Jonas Fröberg.
- Interviews on Swedish TV News, Channels 1 and 2, 2007-11-10.
- November 6 and 8, 2007 Interviews for TV2 and TV1, Stockholm, Sweden.
- PBS News Hour Interview, May 2, 2007
- Type into Google “Patzek ethanol,” 34,800 entries; “Pimentel Patzek,” 23,700 entries, “Patzek Energy Tribune,” 1800 entries; “Patzek NPR,” 630 entries; “Patzek Wisconsin,” 768 entries; “Patzek BBC,” 9340 entries; “Patzek Khosla,” 1331 entries, Patzek blogs, 361 entries; accessed 02/17/07, 8:30 pm.
- In 2007, BBC World Service Program 4 interview by Robert Day, BBC World Service Business News interview by Lindsay Curwen, NPR 2 interviews, 1-3 press interviews a day.
- In 2006: NPR, BBC World Today, CNBC, Bloomberg TV, CNN, CBS, ABC, Fox TV interviews, several radio talk shows (Olson, KPFA 94.1 FM, etc.), and too many press interviews, and blogs to count. For example, type in BBC Patzek into Google, and check
- **Over 500 press articles worldwide in 2005 quoting me and my work**
- Channel 2 TV News Report
- KPFA 94.1, a 25-minute segment on the "Morning Show," June 20, 2003, 7:35-8:00 a.m.
- CBS Syndicated Radio Program

Popular press articles are listed below:

Ist Bio-Sprit umweltschädlich?

Öko Test - vor 6 Stunden gefunden (7/15/2005)

Demnach kamen David Pimentel (Professor für Ökologie an der Cornell University) und Tad **Patzek** (University of California in Berkeley) zu dem Ergebnis, dass ...

UFOP: Biosprit hat positive Ökobilanz

Pressrelations (Pressemitteilung) - vor 9 Stunden gefunden (7/15/2005)

... im Spiegel-Pressebericht wiedergegebenen Autoren David Pimentel, Professor für Ökologie und Landwirtschaft an der Cornell Universität und Tad **Patzek** von der ...

US-STUDIE Bio-Sprit ist umweltschädlich

Spiegel Online - 6. Juli 2005

... Der Professor für Ökologie und Landwirtschaft an der Cornell University hat gemeinsam mit Tad **Patzek** von der University of California in Berkeley ...

US-Studie

wienweb.at - 7. Juli 2005

Zu diesem niederschmetternden Urteil kommen Forscher um David Pimentel von der Cornell University und Tad **Patzek** von der Universität von Kalifornien in ...

Corn Ethanol Takes More Energy Than It Makes

Environment News Service – Jul 13, 2005

... "We're embarking on one of the most misguided public policy decisions to be made in recent history," said Tad **Patzek**, professor of geoen지니어ing at UC ...

Green fuels do not reduce fossil fuel consumption

Age (subscription), Australia - Jul 12, 2005

The San Francisco Chronicle states UC Berkeley geoen지니어ing professor Tad **Patzek** argued that up to six times more energy is used to make ethanol than the ...

Federal energy bill could harm California

Daily Independent, CA – July 12, 2005

... Tad **Patzek** in the journal *Critical Reviews in Plant Sciences*, making ethanol may use up to six times as much energy as the resulting fluid contains. ...

A Quick Look At Ethanol: Past Present And Future

Blogger News Network - Jun 28, 2005

... But in a recent issue of the journal *Critical Reviews in Plant Sciences*, UC Berkeley geoengineering professor Tad **Patzek** argued that up to six times more ...

Ethanol not a substitute for fossil fuels

Resource Investor, VA - Jun 27, 2005

By Jon Nones. UC Berkeley geoengineering professor Tad **Patzek** raises questions about the nation's move toward widespread use of ethanol. ...

Ethanol Wins Favor To Ease Fuel Fears

Tampa Tribune, FL - Jul 2, 2005

... Even if the auto industry could be persuaded to make cars that burn mostly ethanol, production could never keep up with demand, said Tad **Patzek**, a professor of ...

Drunk on Ethanol

The Progress Report - Jul 1, 2005

... Dr. Tad **Patzek**, a geoengineer at UC Berkeley, examined the full process of corn-based ethanol production, from seed to tank, and found in a recent report that ...

Producing ethanol and biodiesel from corn and other crops is not ...

PhysOrg.com, VA - Jul 5, 2005

... Pimentel and Tad W. **Patzek**, professor of civil and environmental engineering at Berkeley, conducted a detailed analysis of the energy input-yield ratios of ...

Study Shows Biofuel from Crops Not Worth the Energy Benefit

High Plains Journal, KS - Jul 5, 2005

... "These strategies are not sustainable." Pimentel and Tad W. **Patzek**, professor of civil and environmental engineering at Berkeley, conducted a detailed analysis ...

[UC scientist says ethanol uses more energy than it makes A lot of fossil fuels go into producing the gas substitute](#) - Elizabeth Svoboda, Special to The Chronicle Monday, June 27, 2005, Page A-4.

[Ethanol Stirs Eco-Debate by David Pescovitz, March 16, 2005](#)

[Lab Notes, Research from the College of Engineering, U.C. Berkeley](#)

... "In terms of renewable fuels, ethanol is the worst solution," Patzek says. "It has the highest energy cost with the least benefit."

[LBL's Switch to Ethanol Fuels Controversy: By ANNA OBERTHUR](#)

[Berkeley Daily Planet, CA](#) - Sep 17, 2004

... Cycle," which is to be published in the journal *Critical Reviews in Plant Sciences* in December, **Patzek** argues that energy from corn **ethanol** is fundamentally ...

[Big funding needed for ethanol](#)

[Brisbane Courier Mail, Australia](#) - Jun 27, 2004

... In the case of **ethanol** production from corn (the US has little in the way of sugar cane), the study led by **Berkeley** professor Ted **Patzek** (a petroleum and ...

[The Midwest's favorite subsidy](#)

[The Chicago Tribune \(Editorial\), United States](#) - Feb 3, 2004

... That conclusion was reached independently last year by Cornell University agricultural scientist David Pimentel and University of California geoengineering professor **Tad W. Patzek**. ...Pimentel

called ethanol "subsidized food burning." **Patzek** has slammed the ethanol subsidy as one of the most misguided public policy decisions in recent history. "We are burning the same amount of fuel twice to drive a car once," **Patzek** wrote...

Breakthroughs – Cutting Edge Research: "Ethanol does more harm than good," *Forefront*, Fall 2003, page 3.

"Fueling the Green Debate," *California Monthly*, September 2003, page 13.

[IL corn growers disappointed in federal energy bill stall](#)

[The Illinois Leader, United States](#) - Dec 1, 2003

... **Ethanol** production from corn is a fossil-energy-losing proposition," Berkeley Professor Ted **Patzek** said at a Canadian National Farmers' Union meeting last week ...

[Farmers union douses ethanol flame](#)

[Saskatoon Western Producer, Canada](#) - Nov 27, 2003

Tadeusz **Patzek**, an engineering professor at the University of California, Berkeley, told NFU delegates that **ethanol** production would be one big boondoggle of ...

[Expert pans ethanol](#)

[Stirling Community Press, Canada](#) - Nov 26, 2003

... **Patzek** also outlined the high water use of **ethanol** production plants and their harmful environmental emissions. He summed up by ...

[Ethanol - Bonanza or boondoggle for farmers ?](#)

[Dekalb Daily Chronicle, IL](#) - Nov 24, 2003

... **Patzek** said part of the problem with **ethanol** is explaining the science and the economics behind it. Doing so is not likely to keep policymakers attention. ...

[Measure to Boost Production Of Ethanol Advances on Hill](#)

[The Washington Post, DC](#) - Jun 3, 2003

...Pimentel recently got an endorsement from University of California engineering professor Tad W. **Patzek**, who also concludes that **ethanol** production does not add to the nation's overall energy supply. "Bottom line -- if we want to use **ethanol** as a [gasoline] additive, we will increase our dependence on imported oil," Patzek said....

[UC Berkeley ethanol study sparks discord](#)

[Oakland Tribune, CA](#) - Jun 7, 2003

BERKELEY -- The **ethanol** industry sharply rebuked a study by University of California, **Berkeley** freshmen concluding it takes more energy to produce **ethanol** than ...

[UC Berkeley ethanol study sparks discord](#)

[Alameda Times-Star, CA](#) - Jun 7, 2003

BERKELEY -- The **ethanol** industry sharply rebuked a study by University of California, **Berkeley** freshmen concluding it takes more energy to produce **ethanol** than ...

[University Study Questions Ethanol](#)

[SolarAccess.com News, NH](#) - Jun 18, 2003

... to ruffle some biofuel industry feathers, a new report released on June 5 by researchers at the University of California, **Berkeley**, concludes using **ethanol** as ...

[Ethanol power play](#)

[Rocky Mountain News, CO](#) - Jun 14, 2003

... The latest study of the inefficiencies of **ethanol** was just released by Tad W. Patzek, professor of geoen지니어ing at the University of California at **Berkeley**. ...

[Producing **ethanol** from corn drains resources, says new report by ...](#)

[UC Berkeley \(press release\), CA - Jun 5, 2003](#)

BERKELEY – Using **ethanol** as a gasoline additive will do more harm than good to the environment, concludes a new report released today (Thursday, June 5) by ...

[Study: **Ethanol** No Friend of the Environment](#)

[The Berkeley Daily Californian, CA - Jun 10, 2003](#)

... its critique of the UC **Berkeley** study, Patzek plans to release his criticism of the 1997 Argonne study—widely regarded as the premiere source on **ethanol** fuel ...

[Researchers criticize Senate **ethanol** bill](#)

[Contra Costa Times, CA - Jun 6, 2003](#)

As the Senate approved a federal energy bill requiring more **ethanol** in gasoline, UC **Berkeley** researchers concluded Thursday that the fuel additive does more ...

[Ethanol bill gains Senate approval](#)

[Oakland Tribune, CA - Jun 6, 2003](#)

... Still, a report issued Thursday by University of California, **Berkeley**, engineering professor Tad Patzek and his students concluded that using **ethanol** will do ...

['Green' cars fail environment test](#)

[Guardian, UK - Jun 21, 2003](#)

... Fidell cited a report published this month in the US by the University of California, **Berkeley**, which claimed using **ethanol** as a petrol additive - an easier ...