David A. Rockstraw, Ph. D., P. E.

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EDUCATION

Ph. D., Chemical Engineering, ***The University of Oklahoma,*** Norman, OK — Dec 1989

B. S., Chemical Engineering, ***Purdue University,*** West Lafayette, IN — Jun 1986

EXPERIENCE

David A. Rockstraw, Ph. D., P. E., Inc., Mesilla, NM 88046

CHEMICAL PROCESS DESIGN/REVIEW/FORENSIC ANALYSIS & EXPERT WITNESS — INCORPORATED SINCE 1Q 2022

- Professional Engineering Licensure: NM #14253; TX #135909; CA #7171
- Process design/analysis engineering consulting support to both private companies and on government contracts (e.g., NSF Small Business Innovative Research grants).
- Expert witness support of litigations involving patent infringement and/or validity, chemical process incidents/explosions/fire, environmental emissions, safety assessments, and forensic analysis of chemical process DCS data.
- Testimony since January 2022 (†Deposition; ‡Trial/Arbitration)
  - Beasley, Allen, Crow, Methvin, Portis & Miles, P.C., Montgomery, AL. Expert witness for the **plaintiffs** on matter involving the standard of care for handling toxic and persistent chemicals (W. H. Brooks, et al, v. City of Calhoun, Georgia, et al, In the Superior Court of Gordon County, State of Georgia, Civil Action No. 24CV74289, 2025 -).†
  - Vinson & Elkins, Austin, TX. Expert witness for the **defense** and counter **plaintiff** of patent infringement of U.S. Patent Nos. 9,816,752, 10,302,355 (System and Method for Separating Wide Variations in Methane and Nitrogen), and 11,378,333 (System and Method for Separating Methane and Nitrogen with Reduced Horsepower Demands). (Charis Engineering, LLC., v. BCCK Engineering Inc., et al., Case No. 7:23-CV-84, U.S. District Court for the Western District of Texas Midland-Odessa Division, 2024-26).†‡
  - Abraham Watkins, Houston, TX. Expert witness for **plaintiff** in matter involving standard of care and sulfuric acid materials compatibility (Maxwell Augustt, et al. v. Custom Chemical Services LLC, et al., Cause No. 23-CV-0668, District Court, Galveston County, TX, 56th Judicial District, 2025-26).†
  - Gutwein Law, Lafayette, IN. Expert witness for **plaintiff** on topic of anerobic digestion of agricultural wastes (Bio Town Ag, Inc., v. Advanced Vacuum Services, Inc. and Proctor & Gamble Company, Cause No. 91C01-2208-PL-23 in White County Circuit Court State of Indiana, 2025 -).†
  - Potts Law Firm, Houston, TX. Expert witness for **plaintiffs** on matter involving a fire at a fertilizer plant (Vanda Thomas, et al. v. Winston Weaver Co., Inc., 22 CvS 683, In the General Court of Justice Superior Court Division, North Carolina, Forsyth County, 2025-26).†

- Snell & Wilmer and Kirkland & Ellis LLP, Washington, DC. Expert witness for the **defense** on a patent infringement case involving U.S. RE 46,002, "Plural Component Spray Gun for Fast Setting Materials" and 7,527,172, "Plural Component Mixing and Dispensing Apparatus." (Graco Inc. & Graco MN, Inc. v. Carlisle Construction Materials, LLC., C.A. No. 21-245 (MN) in the U.S. District Court for the District of Delaware. 2021-24).[†‡]
- McDermott Will & Emery LLP, Austin, TX. Expert Witness for the **petitioner** on matter involving separation of natural gas recovered by CO_2 EOR (Scout Energy Management, LLC and Chevron U.S.A. Inc., v. Pilot Intellectual Property, LLC, Case IPR2024-00385, U.S. Patent 8,505,332 B1 Natural Gas Liquid Recovery Process, 2024-25).[†]
- Clarke Rajchel Engineering LLC, Laramie, WY. Expert witness for **claimant** in a matter of misappropriation of a technology developed by claimant for the production of ammonium thiosulfate (Clark Rajchel Engineering LLC v. Stercorat Hungary Kft and Intech, spol. s.r.o., Slovakia. Vienna International Arbitral Centre, 2021-24).[‡]
- Shearman & Sterling LLP, New York, NY. Expert witness for the **petitioner** on inter partes review of the validity of U.S. Patent No. 11,248,245 B2 Processes and Systems for Catalytic Manufacture of Wax Ester Derivatives. (Cargill, Inc., et al. v. Vantage Specialty Chemicals, Inc., United States Patent & Trademark Office, 2022-24).[†]
- Hausfeld, Boston, MA. Expert consultant for **plaintiff** on a matter involving 1,4-dioxane contamination of municipal water supply (Suffolk County Water Authority, v. The Dow Chemical Co., Ferro Corporation, Vulcan Materials Co., Procter & Gamble Company, Shell Oil Co., Individually and Doing Business As Shell Chemical LP., in the United States District Court For The Eastern District Of New York, Case No. 17-cv-6980. 2021-23).[†]
- Nelson Bumgardner Albritton PC, Orland Park, IL. Expert witness for **plaintiff** on a patent infringement case involving a corrosion prevention of automotive radiators (Electrolysis Prevention Solutions, LLC v. Daimler Trucks North America, LLC, U.S. District Court for the Western District of North Carolina Charlotte Div, Case No. 3:21-cv-171-RJC-DCK, 2023-25).[†]
- Duane Morris LLP, Houston, TX. Expert witness for **defendant** of alleged infringement of U.S. Patent No. 9,017,488 Process for Removing Hydrocarbons and Noxious Gases From Reactors and Media-Packed Equipment (Refined Technologies, Inc. v. USA Debusk LLC et al, U.S. District Court For The Southern District Of Texas Galveston Div, Civil Action No. 3:22-cv-00197, 2023-26).[††]
- Sterne, Kessler, Goldstein, & Fox, Washington, DC. Plaintiff **plaintiff** expert witness on matter involving infringement of US 8,167,141 B2, "Gravity Flow Filter" (Brita v. multiple defendants, International Trade Commission. 2021-22).[†‡]
- Robins Kaplan LLP; Minneapolis, MN. Expert witness for the **plaintiff** on wrongful injury and product liability matter involving dust remover product (*Ashen S. Diehl, Plaintiff v. 3M Company, Defendant, Court File No. 69DU-CV-18-2662, in the U.S. District Court State of Minnesota, Sixth Judicial District, County of St. Louis*. 2020-22).[†]
- Finnegan, Henderson, Farabow, Garrett & Dunner, LLP; Reston, VA. Expert witness for **plaintiff** on patent infringement matter and validity of U.S. Patent 7,473,685 B2 (January 6, 2009) entitled, "Process for preparation of chemically stable, dry-flow, low compact, dust free, soluble granules of phosphoroamidothioates" (UPL NA v. Tide International (USA), Inc., Zhejiang Tide CropScience, Co., Ltd., and Ningbo Tide Imp. & Exp. Co., Ltd., Civ. No. 8:19-cv-01201 C.D. Cal. 2019-22).[†]

***New Mexico State University**, Las Cruces, New Mexico*

EMERITUS PROFESSOR	SEP 2021 – PRESENT
ACADEMIC DEPARTMENT HEAD, CHEMICAL & MATERIALS ENGINEERING	JUL 2012 – AUG 2021
ROBERT DAVIS DISTINGUISHED PROFESSOR	SEP 2013 – AUG 2021
NMSU DISTINGUISHED ACHIEVEMENT PROFESSOR	AUG 2012 – AUG 2021
INTERIM ACADEMIC DEPARTMENT HEAD, MECHANICAL & AEROSPACE ENGINEERING	AUG 2018 – AUG 2019
CREATOR & DIRECTOR, NMSBREW BREWERY ENGINEERING PROGRAM	JAN 2016 – APR 2019
PROFESSOR, CHEMICAL & MATERIALS ENGINEERING	AUG 2004 – AUG 2012
ASSOCIATE PROFESSOR, CHEMICAL ENGINEERING	MAY 1998 – AUG 2004
ASSISTANT PROFESSOR, CHEMICAL ENGINEERING	AUG 1995 – MAY 1998

- Numerous awards and recognitions for research, teaching, and service.
- Record of accomplishment is extensive and will be detailed as needed or requested.

***Los Alamos National Laboratory**, Los Alamos, New Mexico*

VISITING SCIENTIST- NUCLEAR MATERIALS TECHNOLOGY DIVISION 1997 - 2000

- Fundamental studies of crystal habit and specific cake resistance of hydroxide neutralization precipitates from actinide processing.

***E.I. DuPont de Nemours Co., Inc. / Conoco, Inc.**, Ponca City, Oklahoma*

RESEARCH ENGINEER - CORPORATE PROCESS DEVELOPMENT Aug 1990 Jul 1995

- Directed pilot plant research across business units (e.g., fluorochemicals; specialty, commodity, and agricultural chemicals; polymers & fibers) leading to commercialization.

***Ethyl Corporation**, Orangeburg, South Carolina*

SENIOR R&D ENGINEER, RESEARCH & DEVELOPMENT Sep 1989 – Jul 1990

- Developed, patented, and commercialized novel sodium/potassium catalyst and catalytic process for production of isobutylbenzene, a pharmaceutical intermediate.

***Kraft, Inc.**, Glenview, Illinois*

ENGINEER I / CO-OP STUDENT- R & D DIVISION Aug 1981 – Aug 1986

- Performed material and energy balances on ethanol process (ultrafiltration, reverse osmosis, fermentation, and azeotropic distillation). Supported R&D processes including extrusion, ultrafiltration, evaporation, emulsification, spray drying, evaporation, et al.

PATENTS

- 6,225,256, May 1, 2001, Activated carbon feedstock.
- 5,157,186, Oct 20, 1992, Catalytic Coupling of an Alkene with an Aromatic.
- 5,104,843, Apr 14, 1992, Catalyst Composition for Coupling Process.

CONTINUING EDUCATION

2025 (32 PDH)

- Reactor Water Chemistry (CED H03-001), 3 PDH
- Principles of Water Treatment (CED H03-002), 3 PDH
- Microbiological & Corrosion Ctrl in Cooling Water Systems (CED H02-007), 2 PDH
- Ethics in Professional Practice (CED LE2-007), 2 PDH
- CO_2 Emission Reduction from Changes in Elec Gen & Use (CED H11-001), 11 PDH
- Chemigation - Backflow Prevention (CED M01-005), 1 PDH
- Calculation of Gas Density & Viscosity (CED H02-011), 2 PDH
- Intro to Makeup Water for Industrial Water Systems (CED H03-006), 3 PDH
- Field Capabilities to Respond to Drinking Water Contamination (CED H03-009), 3 PDH
- Ethics Roundtable Session 1, New Mexico Board of Licensure for Professional Engineers and Professional Surveyors (NMBLPEPE), 2 PDH

2024 (8 PDH)

- Ethics Roundtable Session C, NMBLPEPS, 2 PDH
- Ethics and AI (PDHonline.org #R232) 3 PDH
- Ethics: Case Studies in Stealing Trade Secrets (PDHonline #R215) 1 PDH
- Ethics: Case Studies in Espionage (PDHonline.org #R213) 1 PDH
- Expert Witness Testimony- Dos and Don'ts (PDHonline #G530) 1 PDH

2022 (33 PDH)

- Ethics and Standards of Professional Conduct (PDH Pro ET-02-001) 2 PDH
- Granular Activated Carbon Systems (PDH Pro CH-02-905), 12 PDH
- Biomass Oil Analysis (PDH Pro CH-02-600), 9 PDH
- Fuel Cells (PDH Pro CH-02-180), 3 PDH
- Introduction to Valves (PDH Pro CH-02-210), 4 PDH
- Ethics: Emerging Technology Issues (TSPE Virtual Ethics Pres.), 1 PDH
- Ethics for Licensed Professionals (PDHOnline.org #G100) 2 PDH

2021 and earlier

- Applied Ethics Roundtable Session C, New Mexico Board of Licensure for Professional Engineers and Professional Surveyors, 2 PDH, Dec 4, 2020.
- Professional Ethics for NM Engineers (PDHOnline #R602) 2 PDH, Nov 21, 2019.
- Ethics for U.S. Engineers (SunCam #224) 1 PDH, Dec 23, 2015.
- Current Topics in Engineering Licensure (National Society of Professional Engineers, Minneapolis, MN), 1.5 PDH, July 18, 2013.
- Best Practices for Measuring & Increasing Member Engagement (National Society of Professional Engineers, Minneapolis, MN), 1.5 PDH, July 19, 2013

- Numerous undergraduate courses towards completion of degree in accounting, 2010-2012
- Aspen Plus Training Center courses (1999-2012):
  - EEE102 Aspen Process Economic Analyzer, 2.1 CEU, June 11-13, 2012
  - EAP250 Distillation Modeling, 1.4 CEU, June 7-8, 2012
  - EAP150 Rigorous Design & Rating of Distillation Columns, 0.7 CEU
  - EAP201 Physical Properties for Process Engineers, 1.4 CEU
  - EAP2980 Modeling of Processes with Aqueous Ionic Solutions – Electrolytes & Salts, 1.4 CEU
- How to Meet New ABET (Safety) Requirements (SAChE, Minneapolis) , 4 PDH, Oct. 16, 2011
- Ethics for Engineers and Surveyors (New Mexico State University Department of Civil Engineering), 2 PDH, Oct. 30, 2008
- Creating Applications in Microsoft Access (AppDev, Chicago, IL), 1.4 CEU, April 2001
- Programming in Microsoft Access (AppDev, Chicago, IL), 2.0 CEU, April 2001
- Applied Surfactant Science & Technology (Surfactant Associates, Inc.), 16 CEU, May 5-7, 1997
- Frontiers in Organic Chemistry (American Chemical Society, Stanford University), 3 CEU, 1995
- Producing Results with Others (Conoco Personnel Development), 0.7 CEU, Sept. 18, 1991
- Effective Writing (Conoco Personnel Development Employee Relations), 0.7 CEU, Sept. 25, 1991
- Research & Engineering Management Safety Training, 1.4 CEU (Dupont Development Seminars, Specialty Services Division), Dec. 18-19, 1990

HONORS & RECOGNITIONS *(NOT EXHAUSTIVE)*

- Frank Bromilow Award for Teaching Excellence, 2016
- American Institute of Chemical Engineers Fellow, 2015
- NMSU Roush Teaching Award, 2014
- NMSU Environmental Health & Safety “Friend of Safety” Award, 2014
- Robert Davis Distinguished Professorship, 2013
- NMSU Distinguished Achievement Professor Award, 2012
- Ed and Harold Foreman Engineering Education Excellence Award, 2012
- NSPE, Prof. Engineers in Higher Ed. Engineering Education Excellence Award, 2009
- E-Council Outstanding Engineering Professor Award, 2008
- AspenTech® Educational Innovation Award, 2004
- Outstanding Chemical Engineering Faculty Member, 2001
- Research Grand Prize, American Academy Environmental Engineers, 1998
- Level II DuPont Safety Sentinel Award, 1995
- Sociedad de Ingenieros, New Mexico State University, May, 10, 1996
- DuPont Partnering Recognition for Suva® HFC development: 1992 and 1991

PROFESSIONAL SERVICE *(NOT EXHAUSTIVE)*

American Institute of Chemical Engineers (AIChE)

- Fellow, 2015 – present
  - Fellow's Council (2016 – 2019)
- Faculty Advisor to NMSU Student AIChE Chapter, 2007-2020
  - Outstanding Chapter recognition; 2008, 2009, 2010, 2011, 2016, 2018, 2019

National Society of Professional Engineers

- Board of Directors, 2013 - 2015
- House of Delegates, 2012 - 2014
- Licensure and Qualifications to Practice Committee, 2013 – 2015
- Legislative & Government Affairs Committee, 2014 - 2015
- Chair, Professional Engineers in Higher Education (PEHE) Interest Group, 2010-11
- SW Region Vice Chair, Professional Engineers in Higher Education (PEHE), 2008-09

PROFESSIONAL PUBLICATIONS AND PRESENTATIONS

1. Designing an Adobe Test Wall for the Study of Moisture and Salt Attack. E. Liefeld, D. A. Rockstraw, P. Taylor. Earth USA 2026 Conference, Santa Fe, NM, September 18-20, 2026.
2. How to Be an Effective ChemE Expert Witness in IP Lawsuits: Part 2. D.A. Rockstraw, Ph. D., P. E.; S. Ririe; J. Wyland; R. Rosenzweig. *Chem. Eng. Progress*, August 2025, pp. 51-55.
3. How to Be an Effective ChemE Expert Witness in IP Lawsuits: Part 1. D.A. Rockstraw, Ph. D., P. E.; S. Ririe; J. Wyland; R. Rosenzweig. *Chem. Eng. Progress*, June 2025, pp. 48-53.
4. *Things You Should Know to be an Effective Expert Witness in an Intellectual Property (IP) Matter in the Chemical Processing Industry*. D. A. Rockstraw, 2024 American Institute of Chemical Engineers annual meeting, San Diego, CA, Oct. 28, 2024.
5. *With a Grain of Salt: Crystallization and Dissolution in Salt Attack*. E. Liefeld, D. A. Rockstraw, P. Taylor, G. Figeroua, D. Ellis, Earth USA 2019 Conference, Santa Fe, NM Oct. 25-27, 2019.
6. *Brewing Education & Training* (Topical Conference: Food Innovation & Engineering). Chairs: C. E. Brewer, D. A. Rockstraw, 2018 American Institute of Chemical Engineers annual meeting, Pittsburgh, PA, Oct. 29-31, 2018.
7. *Designing a Brewery Engineering Minor within Chemical Engineering to Meet MBAA Specifications*; David Rockstraw, Catherine E. Brewer, and Stephen Taylor, American Institute of Chemical Engineers National Meeting, Pittsburgh, PA, October 29-31, 2018.
8. *Development of the New Mexico State University Brewery Engineering program of study in Chemical Engineering*, David A. Rockstraw, Oklahoma University Department of Chemical & Biological Engineering Graduate Seminar, Norman, OK, October 16, 2018 (invited).
9. *Teaching Safety in Research through a Rigorous Experimental Safety Program*, J. Miller and D.A. Rockstraw, 2018 American Society of Engineering Education, Salt Lake City, UT, June 24-27, 2018.

10. *Industrial Safety Curriculum for Chemical Engineering Education*, J. Miller & D.A. Rockstraw, Am. Institute of Chemical Engineers Natl Meeting, Oct. 30, 2017, Minneapolis, MN.
11. *Experimental Safety Plan (ESP) for Safety Management in Chemical Engineering Research*, Juanita Miller, David Rockstraw, Martha Mitchell, and Derrik Wootton, Institute of Chemical Engineers National Meeting, October 30, 2017, Minneapolis, MN.
12. *A Field Kit and Methodology for Detecting and Measuring Salts in Adobe*, Eric Liefeld and David Rockstraw, Earth USA 2017; Santa Fe, NM, Sept. 29 – Oct. 1, 2017
13. *Salt Migration Rates in Adobe Walls Constructed of Mesilla Valley Soils*, David Rockstraw, Pat Taylor, Eric Liefeld, Earth USA 2017; Santa Fe, NM, Sept. 29 – Oct. 1, 2017
14. *Additive Manufacturing of Mechanoluminescent Materials* (LA-UR- 17-26157), M. Martinez, D. Rockstraw, 2nd Annual Ultrascale Systems Res. Ctr., Los Alamos Nat'l Lab., Aug. 3, 2017.
15. *Alliance of Faculty and EHS towards Safety Goals*, D. Wootton and D.A. Rockstraw, Campus Safety, Health, & Environmental Management Assoc. (CSHEMA), July 15, 2017, Tucson, AZ.
16. *Electrochemical Conversion of CO_2 to Formic Acid Using Rotating Lead Electrode*, David Rockstraw, Reyad Shawabkeh, Aban Sakheta, American Institute of Chemical Engineers Meeting, November 16, 2016, San Francisco, CA.
17. Panel: What You Need to Know about Being an Expert Witness (invited panelist), Chemical Engineering & the Law Forum, American Institute of Chemical Engineers Meeting, November 14, 2016, San Francisco, CA.
18. Panel: Ethics and Expert Witnessing for Scientists & Engineers (invited panelist), Daniel B. Jett Chapter of the American Society of Civil Engineers, November 4, 2016, Las Cruces, NM.
19. *Generating Perchlorate and N-Nitrosodimethylamine Isotherms Using Pecan Shell Activated Carbons*; J. Freeh, J. Rodriguez, D. A. Rockstraw, C. E. Brewer, American Institute of Chemical Engineers National Meeting, Salt Lake City, UT, November, 11, 2015.
20. *Generating Perchlorate and N-Nitrosodimethylamine Isotherms Using Pecan Shell Activated Carbons*; J. Freeh, D. Amidei, D. A. Rockstraw, C. E. Brewer, 13th Annual Int'l Workshop on Environment and Alternative Energy, European Space Agency, Madrid, Spain, Nov. 11, 2015.
21. *Remediating Salt Attack in Adobe and Earthen Structures*; E. Liefeld, D. A. Rockstraw, G. Henry, Earth USA 2015 Conference, Santa Fe, NM Oct. 2-4, 2015.
22. *Understanding, Detecting, Measuring, and Remediating Salt Attack (Salt Weathering) in Adobe and Earthen Structures*; D. A. Rockstraw, S. Cooper, E. Liefeld, G. Henry, Earth USA 2013 Conference, Santa Fe, NM, Oct. 4-5, 2013.
23. Teach Your Students the Power of Aspen Plus® and Aspen HYSYS® with University Teaching Modules; D. A. Rockstraw, C. Yip, and B. Gochenour, AspenTech Webinar series, Oct 2 2013.
24. Corrected rate law for sulfite oxidation mechanism with ethanol-inhibition, D. A. Rockstraw, *Industrial & Engineering Chemistry Research*, **51**(35), p. 11587 (2012).
25. Old Dead Guy Trading Cards, D. A. Rockstraw, *Chem. Eng. Educ.*, **46**(1), Winter 2012.
26. Incorporating Process Simulation Across the Chemical Engineering Curriculum to Improve Student Performance On the Capstone Design Project, American Institute of Chemical Engineers Conference, Pittsburgh, PA Oct. 28 - Nov 2, 2012.
27. White Paper: The Fundamentals of Engineering Exam as an Assessment Tool of Engineering and Engineering Technology Programs: A Plan for the Future. David A. Rockstraw and other members of the NSPE Professional Engineers in Higher Education Executive Board, The National Society of Professional Engineers (2012).

28. Continuing Our Journey to Bridge the Process Safety Gaps Between Academia and Industry (Paper 232e), Bruce K. Vaughen, Thomas O. Spicer, D. Morrison, James A. Klein, and David A. Rockstraw, Am. Institute of Chemical Engineers, Minneapolis, MN, Oct. 16-21, 2011.
29. Recruiting & Interacting with Students; Erin Reyes (NSPE), David Rockstraw (NMSU), and Terrance Glunt (FDOT), NSPE Leadership Webinar Series, Nov. 11, 2010.
30. Photocatalytic Activity of TiO_2 and TiO_2-xCxNy Thin Films From Polymer Assisted Deposition, S. Baber, Q. Lin, V. Daram, D. A. Rockstraw, S. Deng, H. Luo, American Institute of Chemical Engineers Conference, Salt Lake City, UT, Nov. 7-12, 2010.
31. Workshop: How to Make Meetings Worthwhile and Entertaining, Michelle Wilson, Alicia Aguirre, David Rockstraw, Jessica Houston, American Institute of Chemical Engineers Conference, Salt Lake City, UT, November 6, 2010.
32. Synthesis of Nanowires by Spray Pyrolysis, K. C. Pingali, S.Deng, and D. A. Rockstraw, *Journal of Sensors*, Article ID 683280, 2009, doi: 10.1155/2009/683280.
33. Synthesis of Ru-Ni Core-Shell Nanoparticles for Potential Sensor Applications, S. Deng, K. C. Pingali, D. A. Rockstraw, *Institute of Electrical and Electronics Engineers Sensors Journal: Nanosensors for Defense and Security*, **8**(5-6), pp. 730-734 (2008).
34. Synthesis and Thermal Stability of Carbon Supported and Carbon Coated Ru-Ni Core-and-Shell Nanoparticles, K. C. Pingali, S. Deng, D. A. Rockstraw; *Powder Tech.*, **187** (2008) 19–26.
35. Effect of Ammonium Nitrate on Nanoparticle Size Reduction, K. C. Pingali, S. Deng, D. A. Rockstraw; *Res. Letters in Nanotech.*, Vol. 2008, Article ID 756843, doi:10.1155/2008/756843.
36. Direct Synthesis of Ru-Ni Core-Shell Nanoparticles by Spray-Pyrolysis: Effects of Temperature and Precursor Constituent Ratio, K. C. Pingali, S. Deng, D. A. Rockstraw; *Powder Technology,* **183**(2), p.282-289 (2008).
37. Deposition of Ru-Ni-S Nanoparticles on Carbon by Spray-Pyrolysis: Effects of Solvent, K. C. Pingali, S. Deng, D. A. Rockstraw; *Current Nanoscience*, 2007, **3**, 215-221.
38. Physicochemical properties of carbons prepared from pecan shell by phosphoric acid activation, Y. Guo and D. A. Rockstraw, *Bioresource Tech.*; 98(8), 1513-1521. (May 2007).
39. Direct synthesis of Ru-Ni nanoparticles with core-and-shell structure, K. C. Pingali, S. Deng, D. A. Rockstraw; *Chemical Engineering Communications,* **194**(6), 780-786 (2007).
40. Activated carbons prepared from rice hull by one-step phosphoric acid activation, Y. Guo and D. A. Rockstraw, *Microporous & Mesoporous Matls*, **100**(1-3); 12-19, March 23, 2007.
41. Deposition Of Ru-Ni-S Nanoparticles On Carbon By Spray-Pyrolysis: Effects Of Solvent And Other Processing Parameters, K. C. Pingali, S. Deng, D. A. Rockstraw, American Institute of Chemical Engineers Conference, Salt Lake City, UT, Nov. 4-9, 2007.
42. Synthesis of Ru-Ni Core-Shell Nanoparticles for Sensor Applications, S. Deng, K. C. Pingali, D. A. Rockstraw, Nanoelectronic Devices for Defense and Security conference, U. S Army Edgewood Chemical Biological Center & U.S. Army Research Office in Washington DC, June 18-21, 2007.
43. Water Distillation in a Solar Still, E. Sandoval, A. De La O, D.A. Rockstraw; American Institute of Chemical Engineers Conference, San Francisco, CA; Nov. 12-17, 2006.
44. Synthesis of core-shell nanoparticles and mathematical modeling of exponential relation of particle size variation with precursor concentration, K.C. Pingali, S. Deng, D.A. Rockstraw; Am. Institute of Chemical Engineers Conference, San Francisco, CA; November 12-17, 2006.

45. Formation of Ru-Ni core-and-shell nanoparticles by spray pyrolysis and effect of temperature and precursor constituent ratio on particle size; K. C. Pingali, S. Deng, D.A. Rockstraw; 14th International Conference on Composites/NANO Engineering Conference, Boulder, CO; July 2-7, 2006.
46. Synthesis of carbon nanoparticle thin film with spray pyrolysis, K. C. Pingali, S. Deng, D. A. Rockstraw; *New Mexico Journal of Science*, **44**, 149-163, August 2006.
47. Physical and chemical properties of carbons synthesized from xylan, cellulose, and Kraft lignin by H_3PO_4 activation, Y. Guo, D. A. Rockstraw, *Carbon*, **44**(8); 1464-1475 (July 2006).
48. Silver nanoparticles from ultrasonic spray pyrolysis of aqueous silver nitrate, K. C. Pingali, D. A. Rockstraw, S. Deng; *Aerosol Science & Technology*, **39**:1010–1014, 2005.
49. Synthesis of binary metal nanoparticles of Ru-Ni with core and shell structure; K. C. Pingali, S.Deng, D. A. Rockstraw, Particle Technology Forum, American Institute of Chemical Engineers Conference, Cincinnati, OH; October 30-November 4, 2005.
50. Effect of Ammonium Nitrate on Average Size Reduction of Nanoparticles of Silver and Nickel; K. C. Pingali, S.Deng, D. A. Rockstraw, Nanoscale Sci and Engr Forum, American Institute of Chemical Engineers Conference, Cincinnati, OH; October 30-November 4, 2005.
51. Suitable Course Content and Pedagogy for use of the Aspen Plus® Simulator in the Chemical Engineering Curriculum, D.A. Rockstraw, 2004 American Society of Engineering Education National Meeting, Salt Lake City, UT, June 20-23, 2004.
52. Rapid oxidation of sulfide mine tailings by reaction with potassium ferrate, D.A. Rockstraw, M. Murshed, A.T. Hanson, M.J. Johnson, International Symposium on Chemical Reaction Engineering, Chicago, IL, June 6-9, 2004.
53. ASPEN Plus® in the Chemical Engineering Curriculum: Suitable Course Content and Teaching Methodology, D. Rockstraw, *Chemical Engineering Education*, **39**(1), Winter 2004.
54. A Generating Equation for Mixing Rules and Two New Mixing Rules for Interatomic Potential Energy Parameters, A. K. Al-Matar, D. A. Rockstraw, *Journal of Computational Chemistry*; **25**(5), p.660-668 (Apr. 2004).
55. Rapid oxidation of sulfide mine tailings by reaction with potassium ferrate, M. Murshed, D.A. Rockstraw, A.T. Hanson, M.D. Johnson, *Environ. Pollution*, **125**(2), 245-253 (Sep 2003).
56. Synthesis and characterization of TiO_2 aerogel photocatalysts for environmental remediation technologies, D.A. Rockstraw, G.K. Newman, M. Dreyer, S. J. Kersey, II Encuentro Científico Internacional de Invierno - ECI2003i, Lima Peru Jan 2-5, 2003.
57. Adsorption of 2,4-dinitrophenol and 2,4-dinitrotoluene from aqueous system using surfactant-modified, lignocellulosicbased activated carbon, A. D. Cota-Espericueta, D. Rockstraw, 224th ACS National Meeting, Boston, MA, August 18-22, 2002.
58. A model for adsorption of multiple metal ion solutes in aqueous solution onto carbon produced from pecan shells, S.A. Dastgheib, D.A. Rockstraw, *Carbon*, **40**(11), 1853-61 (2002).
59. Copper and strontium adsorption by a novel carbon material manufactured from pecan shells; RA Shawabkeh, DA Rockstraw, RK Bhada, *Carbon,* **40**(5), 781-786 (2002).
60. A Generating equation for Mixing Rules for the Interatomic Potential Parameters and a New Mixing Rule for the Noble Gases, American Institute of Chemical Engineers National Meeting, Poster Session: Applying Molecular Simulations and Computational Chemistry, Ali K Al-Matar, David A Rockstraw, Reno, NV, November 2001.
61. Pecan shell activated carbon: synthesis, characterization, & application for removal of Cu from aqueous solution, S. A. Dastgheib, D.A. Rockstraw, *Carbon*, **39**(12), 1849-55 (2001).

62. Rare Earths and Actinides: Science, Technology and Applications IV, (ISBN: 0-87339-470-4), Bautista and Mishra, editors, "Vitrified Magnesia Dissolution and Its Impact on Plutonium Residue Processing," K.W. Fife, J.L. Alwin and D.A. Rockstraw, pp. 123-135, The Minerals, Metals, & Materials Society (2000).
63. Adsorption of metal ions onto oxidized, activated carbon produced from pecan shells, in single and multicomponent systems, S.A. Dastgheib, D. A. Rockstraw, 219th American Chemical Society National Meeting, San Francisco, CA, March 27, 2000
64. Adsorption of aromatics on pecan-shell-based carbon, D.A. Rockstraw and L.A. Roybal, 219th American Chemical Society National Meeting, San Francisco, CA, March 27, 2000
65. Solution to the 1999 AICHE National Student Design Contest, D.A. Rockstraw, S.P. Bellner, American Institute of Chemical Engineers National Meeting, Dallas, TX, November 1, 1999.
66. Vitrified Magnesia Dissolution and its Impact on Plutonium Residue Processing, K.W. Fife, J.L. Alwin, D.A. Rockstraw, 129th Minerals, Metals, and Materials Society, Nashville, TN, March 12-16, 2000.
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68. Enhanced Pyrite Destruction and Copper Recovery with Fe(VI), A. Al-Matar, J. Alwin, J. Kearns, D. A. Rockstraw, Waste Management '99, Tuscon, AZ, Feb. 28 – Mar. 4, 1999.
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70. Synthesis & Characterization of Phosphate-Based Zirconium/Titanium Mixed Oxide Catalysts, D. K. Kambhampati, D. A. Rockstraw, N. Jackson, S. Thoma, poster presentation at the 2nd World Congress on Environmental Catalysis Conference, Miami, FL, November 1998.
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72. Treatment of Copper Mine Tailings by Slurry Approach: A Case Study, D.K. Kambhampati, R. Mallapragada, K.G. Ragunathan, R.K. Bhada, D.A. Rockstraw, Environmental Engineering & Management Proceedings, Barcelona, Spain, September 30 – Oct. 2, 1998,
73. Synthesis & Characterization of Carbon from Pecan Shells, D. Rockstraw, Center for Applied Energy Res., Univ of Kentucky, Lexington, KY, April 23, 1998 (invited).
74. Use of Pecan Shells in the Chemical Industry, DA Rockstraw, R Shawabkeh, RK Bhada, D Binkley, XXXII Annual Western Pecan Conference, Las Cruces, NM, March 9, 1998 (invited).
75. Groundwater Remediation with Pecan Shell-Based Activated Carbon and Montmorillonite Clay, J. Alwin, D. Rockstraw, Waste Management '98, Tucson, AZ, Feb 28 - March 4, 1998.
76. Interaction of Micelles with Ion-Exchange Membranes, M. Nelson, D.A. Rockstraw, M. Montoya, J.F. Scamehorn, Am. Inst. Chem. Engrs, Los Angeles, CA, Nov. 16-21, 1997.
77. An Interdisciplinary Course in Design, D.A. Rockstraw, American Chemical Society, Emerging Technologies in Hazardous Waste Management, Special Session WERC: Bringing Environmental Excellence into the 21st Century, Pittsburgh, PA, September 15-17, 1997.
78. Reduction of BOD in Pecan Process Water using Foam Flotation, D.A. Rockstraw, National Pecan Sheller's Association Annual Meeting, Charleston, SC, September 12, 1997 (invited).
79. Removal of Reactive Dyes from Water, D.A. Rockstraw, El Paso Water Users Consortium Meeting, El Paso, TX, July 16, 1997 (invited).

80. Synthesis & Characterization of Phosphate-Based Solid Acid Catalysts, N. Jackson, D.A. Rockstraw, D.K. Kambhampati, S. Thoma, N. A. Catalysis Soc., Chicago, IL, May 19-23, 1997.
81. An Activated Carbon Manufactured by Novel Techniques, R. Shawabkeh, D. A. Rockstraw, R. K. Bhada, NMSU Graduate Student Symposium, Las Cruces, NM, May 2, 1997 (First Place).
82. Activated Carbon Manufactured by Novel Technique, DA Rockstraw, R Shawabkeh, RK Bhada, Waste-management Education & Research Consortium/Hazardous Substances Res. Consortium Joint Conference on the Environment, Albuquerque, NM, April 22-24, 1997.
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