

Keith Lawrence Hohn

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EDUCATION

B.S. Chemical Engineering, University of Kansas, 1995
Ph.D. Chemical Engineering, University of Minnesota, 1999
Advisor: Lanny D. Schmidt

PROFESSIONAL EXPERIENCE

Associate Professor, Department of Chemical Engineering, Kansas State University,
present

Assistant Professor, Department of Chemical Engineering, Kansas State University,
1999-2004

Graduate Research and Teaching Assistant, Department of Chemical Engineering and
Materials Science, University of Minnesota, 1995-1999

Instructor, Department of Mathematics, University of Kansas, 1994-1995

Undergraduate Research Assistant, Department of Chemical and Petroleum Engineering
University of Kansas, 1994-1995

Undergraduate Research Assistant, Department of Chemical Engineering,
University of Colorado, June 1994-August 1994

Undergraduate Research Assistant, Department of Chemical and Petroleum Engineering
University of Kansas, 1993-1994

PROFESSIONAL ACTIVITIES

Science and Engineering Education Scholars Program, University of Wisconsin, 1999

Vice-Chair, Novel Reactor and New Reactor Concepts Session, AIChE National Meeting, 2001 and 2002.
Vice-Chair, Fundamentals of Supported Catalysts Session, AIChE National Meeting, 2003.
Vice-Chair, Sequestration and CO₂ Capture for Sequestration – II, AIChE National Meeting, 2005
Consulted for Mid-American Commercialization Corporation (MACC), April 14-15, 2004.
Vice-Chair, AIChE reaction engineering programming committee, 2005-2006
Chair, AIChE reaction engineering programming committee, 2006-2007
Chair, Microreactors Session, AIChE National Meeting, 2006
Chair, Microreactors Session, AIChE National Meeting, 2007
Chair, Fuel Processing for Fuel Cells, AIChE National Meeting, 2008
Chair, Microreaction Engineering Session, AIChE National Meeting, 2009

Kansas State University

Faculty Senate, present
Faculty Senate Committee on University Planning, present
Advisor, Society of Women Engineers, present
Department of Chemical Engineering Department Head Search Committee, 2009
Faculty Exchange on Teaching Excellence Advisory Committee, present
Faculty Mentor, EXCITE! Program, 2006, 2007, 2008, 2009
Faculty Mentor, Engineering and Science Summer Institute (ESSI), 2007, 2008
Administrator, Learning Community Initiative, College of Engineering, 2006-2007
College of Engineering Dean Search Committee, 2006-2007
Department of Chemical Engineering, Open House Faculty Advisor, 2006-present
Department of Chemical Engineering, Faculty Search Committee, 2006
Career and Employment Services College of Engineering Liaison Search Committee, 2006
College of Engineering Diversity Committee, 2004-present
Department of Chemical Engineering Permanent Department Head Search Committee, 2004
Department of Chemical Engineering Interim Department Head Search Committee, 2003
College of Engineering Research Excellence Awards Committee, 2003
Organizer, Chemical Engineering Departmental Seminar Series, 2000-2002
College of Engineering Learning Effectiveness Committee, 2002
Faculty Mentor, ACS Project Seed, 2000, 2001, and 2002
Engineering LEA/RN, 1999-2001

AWARDS AND HONORS

Women in Engineering and Science Making A Difference Award - 2007
Myers-Alford Memorial Teaching Award – 2006
Sigma Xi – KSU Outstanding Junior Scientist, 2006
Wakonse Fellow - 2006

Engineering Student Council Award of Recognition for Outstanding Leadership, 2005 and 2006
Big Twelve Faculty Fellowship, 2001

SCIENTIFIC AND PROFESSIONAL SOCIETIES

Sigma Xi
American Institute of Chemical Engineers
Omega Chi Epsilon
American Society for Engineering Education
American Chemical Society

PUBLICATIONS

Refereed

D.B. Hamal, J.A. Haggstrom, G.L. Marchin, M. Ikenberry, K. Hohn, and K.J. Klabunde, "Photocatalyst Based on Titanium Dioxide (TiO₂) Co-Doped with Silver, Carbon, Sulfur", *Langmuir*, in press.

C.-C. Huang and K.L. Hohn, "Tetrakis(dimethylamino)ethylene Chemiluminescence (TDE CL) Characterization of the CMC and the Viscosity of Reversed Microemulsions", *Journal of Physical Chemistry B*, submitted.

C.-C. Huang and K.L. Hohn, "Catalytic Reactivity of Surface Isolated Hydroxyl on Aluminum Oxide for Tetrakis(dimethylamino)ethylene Chemiluminescence", *Journal of Physical Chemistry A*, submitted.

C.-C. Huang and K.L. Hohn, "Characterization in the Properties of Surface Hydroxyls on Metal Oxides by Tetrakis(dimethylamino)ethylene Chemiluminescence", *Journal of Materials Science*, submitted.

Y.-C. Lin and K.L. Hohn, "Catalytic Partial Oxidation of Methanol and Ethanol for Hydrogen Generation", *ChemSusChem.*, in press.

X. Yang, C. Cao, L. Erickson, K. Hohn, R. Maghirang, and K. Klabunde, "Photocatalytic Degradation of Rhodamine B on C-, S-, N-, and Fe-doped TiO₂ Under Visible-Light Irradiation", *Applied Catalysis B: Environmental* **91** (2009), 657-662.

K.L. Hohn, C.-C. Huang, and C. Cao, "Catalytic Ignition of Light Hydrocarbons", *Journal of Natural Gas Chemistry* **18** (2009), 115-123.

C.-C. Huang, K.L. Hohn, and J.R. Schlup, "The Influence of Surface Hydroxyls on Catalyzed Tetrakis(dimethylamino) ethylene Chemiluminescence", *Journal of Physical Chemistry C* **113** (2009), 11050-11059.

- C. Cao and K.L. Hohn, "Study of Reaction Intermediates of Methanol Decomposition and Catalytic Partial Oxidation on Pt/Al₂O₃", *Applied Catalysis A: General* **354** (2009), 26-32.
- D.Y. Corredor, J.M. Salazar, K.L. Hohn, and D. Wang, "Evaluation and Characterization of Forage Sorghum as Feedstock for Fermentable Sugar Production", *Applied Biochemistry and Biotechnology*, **158** (2009), 164-170.
- K.L. Hohn and T. Dubois, "Simulation of a Fuel Reforming System Based on Catalytic Partial Oxidation", *Journal of Power Sources* **183** (2008), 295-302.
- P. Lu, J.H. Edgar, C. Cao, K. Hohn, R. Dalmau, R. Schlessler, Z. Sitar, "Seeded growth of AlN on SiC substrates and defect characterization" *Journal of Crystal Growth* **310** (2008), 2464-2470.
- R. Bass, T. Dunn, Y.-C. Lin, K. Hohn, "Syngas Production from Catalytic Partial Oxidation of n-Butane: Comparison between Incipient Wetness and Sol-gel Prepared Pt/Al₂O₃", *Ind. Eng. Chem.Res.* **47** (2008), 7184-7189.
- K.L. Hohn and C. Cao, "In-situ IR Investigation of Activation and Catalytic Ignition of Methane over Rh/Al₂O₃ Catalysts", *Applied Catalysis A: General* **344** (2008), 78-87.
- L.T. Fan, Y.-C. Lin, S. Shafie, K.L. Hohn, B. Bertók, F. Friedler, "Graph-Theoretic and Energetic Exploration of Catalytic Pathways of the Water-Gas Shift Reaction", *Journal of the Chinese Institute of Chemical Engineering* **39** (2008), 467-473.
- Y.-C. Lin, L.T. Fan, S. Shafie, K.L. Hohn, B Bertok, and F. Friedler, "Catalytic Pathways Identification for Partial Oxidation of Methanol on Copper-Zinc Catalysts: CH₃OH + 1/2O₂ → CO₂ + 2H₂", *Industrial and Engineering Chemistry Research* **47** (2008), 2523-2527.
- T. Ito, S.M. Forman, C. Cao, F. Li, C.R. Eddy, M.A. Mastro, R. T. Holm, R.L. Henry, K.L. Hohn, and J.H. Edgar, "Self-assembled Monolayers of Alkylphosphonic Acid on GaN Substrates", *Langmuir* **24** (2008), 6630-6635.
- D.Y. Corredor, X.S. Sun, J.M. Salazar, K.L. Hohn, and D. Wang. "Enzymatic Hydrolysis of Soybean Hull Using Dilute Acid and Steam Explosion Pretreatments", *Journal of Biobased Materials and BioEnergy* **2** (2008), 51-56.
- X.X. Yang, C.D. Cao, L. Erickson, K. Hohn, R. Maghirang, and K. Klabunde, "Synthesis of Visible-Light-Active TiO₂-Based Photocatalysts by Carbon and Nitrogen Doping", *Journal of Catalysis* **260** (2008), 128-133.
- X. Yang, C. Cao, K. Hohn, L. Erickson, R. Maghirang, D. Hama., K. Klabunde, "Highly Visible-Light Active C- and V-Doped TiO₂ for Degradation of Acetaldehyde", *Journal of Catalysis* **252**(2007), 296-302.

G.D. Claycomb, P.M. A. Sherwood, B.E. Traxel, and K.L. Hohn, "X-ray Photoelectron Spectroscopic Study of the Surface State During Ethane Oxidative Dehydrogenation at Millisecond Contact Times", *Journal of Physical Chemistry C* **111** (2007) 18724-18730.

L.T. Fan, Y.-C. Lin, S. Shafie, K.L. Hohn, B Bertok, and F. Friedler, "Comment on: An Improved Microkinetic Model for the Water-Gas Shift Reaction on Copper", *Surface Science* **601** (2007), 2401-2405.

X. Yang, K.L. Hohn, L.E. Erickson, C. Cao and K.J. Klabunde, "Adsorptive Desulfurization with Xerogel Derived Zinc-Based Nanocrystalline Aluminum Oxide", *Industrial and Engineering Chemistry Research* **46** (2007), 4819-4823.

Y-C. Lin, K.L. Hohn, and S. M. Stagg-Williams, "Hydrogen Generation from Methanol Oxidation on Supported Cu and Pt Catalysts: Effects of Active Phases and Supports", *Applied Catalysis A: General* **327** (2007), 164-172.

A. More, J. Schlup, and K.L. Hohn, "Catalytic Deoxygenation of Fatty Acids: Conversion of Oleic Acid in the Presence of ZnO and ZSM-5", *Biomass and Bioenergy*, submitted.

K.L. Hohn, "The Chemical Engineering Behind How Pop Goes Flat: A Hands-On Experiment for Freshmen Students", *Chemical Engineering Education* **41** (2007).

X. Yang, K.L. Hohn, L.E. Erickson, P. Jeevanandam and K.J. Klabunde, "Sol-Gel Cu-Al₂O₃ Adsorbents for Selective Adsorption of Thiophene out of Hydrocarbon", *Industrial and Engineering Chemistry Research* **45** (2006), 6169-6174.

A. Bourane, C. Cao, and K.L. Hohn, "In Situ Infrared Study of the Catalytic Ignition of Methane on Pt/Al₂O₃", *Applied Catalysis A: General* **302** (2006), 224-231.

Y.-C. Lin and K.L. Hohn, "Effect of Sol-Gel Synthesis on Physical and Chemical Properties of V/SiO₂ and V/MgO Catalysts", *Catalysis Letters* **107** (2006), 215-222.

P.P. Gupta, K.L. Hohn, K.J. Klabunde, A.F. Bedilo, and L.E. Erickson, "Transformation of Nanocrystalline MgO Pellets in Reaction with 1-Chlorobutane", *AIChE Journal* **50** (2004), 3195-3205.

Z. Gu and K.L. Hohn, "Catalytic Oxidation of Methanol on Nanoscale Copper Oxide and Nickel Oxide", *Industrial and Engineering Chemistry Research* **43** (2004), 30-35.

R. Vidal-Michel, and K.L. Hohn, "Effect of Crystal Size on the Oxidative Dehydrogenation of Butane", *Journal of Catalysis* **221** (2004), 127-136.

B.E. Traxel and K.L. Hohn, "Partial Oxidation of Methanol at Millisecond Contact Times", *Applied Catalysis A: General*, **244** (2003), 129-140.

B.E. Traxel and K.L. Hohn, "Effect of Chlorine Addition on Short Contact Time Oxidative Dehydrogenation of Ethane", *Journal of Catalysis* **212** (2002) 46-55.

K.L. Hohn and L.D. Schmidt, "Partial oxidation of methane to syngas at high space velocities over Rh-coated spheres", *Applied Catalysis A: General* **211** (2001), 53-68.

K.L. Hohn, P.M. Witt, M.B. Davis, and L.D. Schmidt, "Methane Coupling to Acetylene over Pt Coated Monoliths at Millisecond Contact Times," *Catalysis Letters* **54**(1998), 113-118.

L.D. Schmidt, K.L. Hohn, and M.B. Davis, "Catalytic Partial Oxidation of Methane at Extremely Short Contact Times: Production of Acetylene," in *Natural Gas Conversion V*, ed. A. Parmaliana, et.al. (Elsevier Science Publishers B.V.: Milan, Italy, 1998), 397-402.

Conference Proceedings

Refereed

K.L. Hohn, L. Bitsie-Baldwin, J. Keen, H. Melhem, A. Pahwa, J. Wiersema, B. Licklider, "Learning Communities Focused on Student Learning and Teamwork Skills", *Proceedings of the 2007 ASEE Midwest Regional Meeting*.

T. Ito, S. Forman, C. Cao, C. Eddy, M. Mastro, R. Holm, R. Henry, K. Hohn, J. Edgar, "Monolayer Formation on GaN Surface via Self-Assembly", *ECS Transactions*, **11** (2007), 97-101.

P. Lu, J.H. Edgar, C. Cao, K. Hohn, R. Dalmau, R. Schlessler, and Z. Sitar, "Bulk AlN Crystal Growth on SiC Seeds and Defects Study", *Mater. Res. Soc. Symp. Proc.*, **955** (2007), 1.

Non-refereed

L. Pena, M. Ikenberry, K. Hohn, D. Boyle, and D. Wang, "Acid Functionalized Nanoparticles for Hydrolysis of Lignocellulosic Feedstocks", *Proceedings of the 2009 ASABE Annual International Meeting*

C. Cao, K.L. Hohn, "In Situ FTIR Study of Catalytic Partial Oxidation", *Preprints – Proceedings of the AIChE 2007 National Meeting*.

X. Yang, C. Cao, K.L. Hohn, L. Erickson, R. Maghirang, K. Klabunde, "The synthesis and characterization of highly visible-active TiO₂-based photocatalyst", *Preprints – Proceedings of the AIChE 2007 National Meeting*.

A. Bhandari, W. Kim, K. Hohn, and G. J. Kluitenberg, "In-Situ Oxidation Polymerization of Phenolic Contaminants: Impact on the Transport and Retention of Phenol in Saturated

Porous Media”, *Proceedings of An International Perspective on Environmental and Water Resources*, 2006.

Y.-C. Lin, K.L. Hohn, and S.M. Stagg-Williams, “Hydrogen Generation from Methanol Oxidation on Supported Pt and Cu Catalysts”, *Preprints - Proceedings of the AIChE 2006 National Meeting*.

C. Cao, A. Bourane, J. R. Schlup, and K. L. Hohn, “In-Situ Infrared Study of Catalytic Ignition of Methane on Rh/Al₂O₃”, *Preprints - Proceedings of the AIChE 2006 National Meeting*.

J.M. Salazar and K.L. Hohn, “Sol-gel Synthesis of Vanadium Phosphorous Oxides as Catalyst for the Partial Oxidation of Butane to Maleic Anhydride”, *Preprints - Proceedings of the AIChE 2006 National Meeting*.

Y.-C. Lin and K. L. Hohn, “Influence of the Morphology of the Oxide Supports on Catalytic Performances of V₂O₅/SiO₂ and VO_x/MgO Catalysts in Methanol Partial Oxidation”, *Preprints - Proceedings of the AIChE 2005 National Meeting*.

A. Bourane and K. L. Hohn “In Situ Infrared Study of the Catalytic Ignition of Methane on Pt/Al₂O₃”, *Proceedings of the North American Catalysis Society Meeting*, Philadelphia, PA, May 22-27, 2005.

J. Salazar and K. L. Hohn “Preparation and Characterization of High Surface Area VOHPO₄*0.5H₂O”, *Proceedings of the North American Catalysis Society Meeting*, Philadelphia, PA, May 22-27, 2005.

A. Bourane, C. Cao, and K.L. Hohn, “In Situ Infrared Study of the Catalytic Ignition of Methane on Pt/Al₂O₃”, *Preprints – Proceedings from the AIChE 2004 National Conference*.

J. Salazar and K.L. Hohn, “Preparation of High Surface Area VOHPO₄·0.5H₂O with the Alkoxide Method”, *Preprints – Proceedings from the AIChE 2004 National Conference*.

P.P. Gupta, K.L. Hohn, L.E. Erickson, A.F. Bedilo, and K.J. Klabunde, “Evaluating Changes in Catalytic Activity and Adsorption of Nanocrystalline MgO in Reaction with 1-Chlorobutane with Reaction Time and Compression to Pellets”, *Preprints – Proceedings from the AIChE 2003 National Convention*.

PRESENTATIONS

Invited Lectures

On-Campus

K.L. Hohn, "X-Ray Photoelectron Spectroscopy for Surface Characterization", Center for Biobased Polymers by Design, Kansas State University, January 15, 2009

K.L. Hohn, "Heterogeneous Catalysis for Energy Applications", Department of Industrial and Manufacturing Systems Engineering Seminar Series, Kansas State University, November 14, 2008

K.L. Hohn, "Ignition of Catalytic Partial Oxidation on Platinum and Rhodium Catalysts", Sigma-Xi Outstanding Junior Scientist Award lecture, Kansas State University, December 6, 2006.

K.L. Hohn, "Catalytic Ignition of Methane Partial Oxidation", Physical Chemistry Seminar Series, Kansas State University, March 7, 2006

K. L. Hohn, "Hydrogen Economy", Sustainability Intersession Course, Kansas State University, January 5, 2006

K.L. Hohn, "Effect of Crystal Size on the Oxidative Dehydrogenation of Butane on V/MgO Catalysts", Nanotechnology and Its Potential Role in Homeland Security, Manhattan, KS, June 2-5, 2003.

K.L. Hohn, "The Effect of Chlorine Addition on the Oxidative Dehydrogenation of Ethane at Millisecond Contact Times", Physical Chemistry Seminar Series, Kansas State University, February 25, 2003.

J.A. Buchholz, Z. Gu, J.L. Falconer, and K.L. Hohn, "Nanocrystals and Air Quality Research: Photocatalytic Oxidation and Decomposition", Air Quality Seminar, Kansas State University, November 29, 2001.

K. L. Hohn, "Oxidative Catalysts for the Destruction of Odor", Air Quality Seminar, Kansas State University, November 1st, 2000.

K. L. Hohn, "Nanocrystal Metal Oxides for Selective Oxidation", Nanostructure Materials Seminar Series, Kansas State University, October 27th, 2000.

K. L. Hohn, "Partial Oxidation of Methane in Millisecond Contact Time Reactors: Complex Fluid Flow Applications", Complex Fluid Flow Group, Kansas State University, October 18, 1999.

K. L. Hohn, "Short Contact Time Reactors: High Selectivity Processes for Light Hydrocarbon Conversion", Department of Chemical Engineering Seminar Series, Kansas State University, October 12, 1999.

Off-Campus

K.L. Hohn, "Catalytic Ignition of Hydrocarbons on Metal Foils and Supported Metal Catalysts", From Surface Science to Short Contact Time Reactors: Celebrating the Scientific Contributions of Lanny D. Schmidt, University of Minnesota, October 27, 2008.

K.L. Hohn, "Catalytic Partial Oxidation (CPO) for Production of Hydrogen for Fuel Cells: Methanol CPO and Catalytic Ignition", Fort Belvoir, July 12, 2005.

K.L. Hohn, "In Situ Infrared Studies of Catalytic Partial Oxidation at Millisecond Contact Times" Department of Chemical and Petroleum Engineering, University of Kansas, September 28, 2004.

K.L. Hohn, "Catalytic Partial Oxidation at Millisecond Contact Times: Novel Route for Converting Light Hydrocarbons and Alcohols", Department of Chemistry, Pittsburg State University, 2004.

B.E. Traxel and K.L. Hohn, "Addition of Chlorine to Catalytic Partial Oxidation", University of Heidelberg, Warnatz research group, July 6th, 2001.

K.L. Hohn, K.L., "Chlorine Addition to Short Contact Time Oxidative Dehydrogenation", Dow Chemical Company, Freeport, TX, June 21, 2001.

K.L. Hohn, "Selective Oxidative Conversion of Light Alkanes: Productive Coupling of Gas Phase and Surface Chemistry", Phillips Petroleum, Bartlesville, OK, March 8, 2001.

K. L. Hohn, "Short Contact Time Reactors: High Yield Processes for Light Hydrocarbon Conversion" University of Colorado, Department of Chemical Engineering, Falconer and Noble research group, March 22, 2000.

K. L. Hohn and L.D. Schmidt, "Partial Oxidation of Methane to Syngas at High Space Velocities", Exxon Research and Development Laboratories, Baton Rouge, Louisiana, February, 1999.

Conference Presentations

K. Hohn, M. Ikenberry, D. Wang, and L. Pena, "Acid Functionalized Nanoparticles for Hydrolysis of Lignocellulosic Feedstocks", National AIChE Meeting, Nashville, November 8-13, 2009.

X. Yang, C. Cao, K.J. Klabunde, R. Maghirang, K. Hohn, and L. Erickson, "Photocatalytic Activity of Multi-Doped TiO₂ Nanoparticles", National AIChE Meeting, Nashville, November 8-13, 2009.

T.J. Selbe, K.L. Hohn, and J.L. Anthony, "Adsorption of Warfare Simulants with Ordered Porous Materials", National AIChE Meeting, Nashville, November 8-13, 2009.

K.L. Hohn and C.-C. Huang, "Estimation of Critical Micelle Concentration (CMC) Using Tetrakis(dimethylamino) Ethylene Chemiluminescence", National AIChE Meeting, Philadelphia, November 16-21, 2008.

X. Yang, C. Cao, L. Erickson, K. Hohn, R. Maghiran, K.J. Klabunde, "Degradation of Acetaldehyde with Doped TiO₂ Photocatalyst Under Visible Light Irradiation", National AIChE Meeting, Philadelphia, November 16-21, 2008.

X. Yang, C. Cao, L. Erickson, K. Hohn, R. Maghirang, K.J. Klabunde, "Synthesis and Characterization of Visible-Light-Active TiO₂-Based Photocatalysts", National AIChE Meeting, Philadelphia, November 16-21, 2008.

A. More, J.R. Schlup, and K.L. Hohn, "A New Path to Green Hydrocarbon Fuels", Sustainability of Biofuels meeting, Manhattan, KS, September 16, 2008.

C.-C. Huang and K.L. Hohn, "Surface Characterization of Al₂O₃ by Tetrakis(dimethylamino) Ethylene", American Society Midwest Regional Meeting, Kearney, October 8-11, 2008.

X. Yang, C. Cao, K. L. Hohn, L. Erickson, R. G. Maghirang, K. J. Klabunde, "Carbon-Doped Titanium Oxide Photocatalyst: Degradation of Acetaldehyde", American Chemical Society Midwest Regional Meeting, Kansas City, November 7-10, 2007.

J.M. Salazar, K. Hohn, "Sol-Gel Synthesis of Nanostructured Vanadium Phosphorous Oxides as Catalysts for the Partial Oxidation of Butane to Maleic Anhydride", National AIChE Meeting, Salt Lake City, November 4-9, 2007.

K. Hohn, "Build Your Own Water Gun – A Project to Introduce Chemical Engineering to Students", National AIChE Meeting, Salt Lake City, November 4-9, 2007.

D. Corredo, D. Wang, X. Sun, J. Salazar, K. Hohn, "Pretreatment and Enzymatic Hydrolysis of Soybean Hulls", National AIChE Meeting, Salt Lake City, November 4-9, 2007.

C. Cao, K.L. Hohn, "In Situ FTIR Study of Catalytic Partial Oxidation", National AIChE Meeting, Salt Lake City, November 4-9, 2007.

C.-C. Huang, K.L. Hohn, "The Influence of Surface Hydroxyls on Catalyzed Tetrakis(Dimethylamino)Ethylene Chemiluminescence", National AIChE Meeting, Salt Lake City, November 4-9, 2007.

X. Yang, C. Cao, K. Hohn, L. Erickson, R. Maghirang, K. Klabunde, "Preparation and Characterization of Highly Visible-Active TiO₂-Based Photocatalysts", National AIChE Meeting, Salt Lake City, November 4-9, 2007.

T. Ito, S. Forman, C. Cao, C. Eddy, M. Mastro, R. Holm, R. Henry, K. Hohn, J. Edgar, "Monolayer Formation on GaN Surface via Self-Assembly", 212th ECS Meeting, Washington, D.C., October 7 -12, 2007.

K.L. Hohn, L. Bitsie-Baldwin, J. Keen, H. Melhem, A. Pahwa, J. Wiersema, B. Licklider, "Learning Communities Focused on Student Learning and Teamwork Skills", ASEE Midwest Regional Meeting, Wichita, KS, September 19-21, 2007.

A. Bhandari, W. Kim, K. Hohn, and G. J. Kluitenberg, "In-Situ Oxidation Polymerization of Phenolic Contaminants: Impact on the Transport and Retention of Phenol in Saturated Porous Media", An International Perspective on Environmental and Water Resources, New Delhi, India, December 18-20, 2006.

Y.-C. Lin, K.L. Hohn, and S.M. Stagg-Williams, "Hydrogen Generation from Methanol Oxidation on Supported Pt and Cu Catalysts", National AIChE Meeting, San Francisco, CA, November 12-17, 2006.

C. Cao, A. Bourane, J. R. Schlup, and K. L. Hohn, "In-Situ Infrared Study of Catalytic Ignition of Methane on Rh/Al₂O₃", National AIChE Meeting, San Francisco, CA, November 12-17, 2006.

J.M. Salazar and K.L. Hohn, "Sol-gel Synthesis of Vanadium Phosphorous Oxides as Catalyst for the Partial Oxidation of Butane to Maleic Anhydride", National AIChE Meeting, San Francisco, CA, November 12-17, 2006.

K. L. Hohn, "Ignition of Catalytic Partial Oxidation on Platinum and Rhodium Catalysts", National AIChE Meeting, San Francisco, CA, November 12-17, 2006.

X. Yang, C. Cao, L.E. Erickson, K. L. Hohn, K.J. Klabunde, "Zinc-Based Nanocrystalline Aluminum Oxide Adsorbents for Desulfurization Application", National AIChE Meeting, San Francisco, CA, November 12-17, 2006.

A. More, J.R. Schlup, K.L. Hohn, "Preliminary Investigations of the Catalytic Deoxygenation of Fatty Acids", National AIChE Meeting, San Francisco, CA, November 12-17, 2006.

L.T. Fan, Y.-C. Lin, S. R. Shafie, K.L. Hohn, B. Bertok, and F. Friedler, "Microkinetic Model for the Water Gas Shift Reaction on Supported Copper Catalysts", National AIChE Meeting, San Francisco, CA, November 12-17, 2006.

Y.-C. Lin, L.T. Fan, S. R. Shafie, K.L. Hohn, B. Bertok, and F. Friedler, "Catalytic Pathways Identification for Partial Oxidation of Methanol on Copper-Zinc Catalysts", National AIChE Meeting, San Francisco, CA, November 12-17, 2006 (poster).

A. More, J. R. Schlup, and K. L. Hohn "Preliminary studies on the deoxygenation of fatty acids into hydrocarbon feedstocks", 34th Annual Biochemical Engineering Symposium, University of Oklahoma, April 23, 2005 (poster).

X. Yang, L. E. Erickson, K. L. Hohn, P. Jeevanandam and K. J. Klabunde "Sol-gel Derived Cu-Al₂O₃ Adsorbent for Selective Adsorption of Thiophene from Hydrocarbon Liquid", Midwest Regional ACS Conference, Joplin, MO, October 22-25, 2005 (poster).

A. Bourane and K. L. Hohn "In Situ Infrared Study of the Catalytic Ignition of Methane on Pt/Al₂O₃", North American Catalysis Society Meeting, Philadelphia, PA, May 22-27, 2005.

J. Salazar and K. L. Hohn "Preparation and Characterization of High Surface Area VOHPO₄*0.5H₂O", North American Catalysis Society Meeting, Philadelphia, PA, May 22-27, 2005 (poster).

"Influence of the Morphology of the Oxide Supports on Catalytic Performances of V₂O₅/SiO₂ and VO_x/MgO Catalysts in Methanol Partial Oxidation", Yu-Chuan Lin and Keith L. Hohn, National AIChE Meeting, Cincinnati, OH, October 30-Nov. 4th, 2005.

J. Salazar and K.L. Hohn, "Preparation of High Surface Area VOHPO₄·0.5H₂O with the Alkoxide Method", 2004 AIChE National Meeting, Austin, Texas, November 7-12, 2004.

A. Bourane, C. Cao, J.R. Schlup, and K.L. Hohn, "In Situ Infrared Study of the Catalytic Ignition of Methane on Pt/Al₂O₃", 2004 AIChE National Meeting, Austin, Texas, November 7-12, 2004.

C.-C. Huang and K.L. Hohn, "Chemiluminescence from Surface Reaction on Metal Oxide Nanocrystals", 2004 AIChE National Meeting, Austin, Texas, November 7-12, 2004 (Poster).

K.L. Hohn, "The Chemical Engineering Behind How Pop Goes Flat: A Hands-On Experiment for Freshmen Students", 2004 AIChE National Meeting, Austin, Texas, November 7-12, 2004 (Poster).

S.R. Tomlinson, C.-C. Huang, and K.L. Hohn, "Chemiluminescence from Reaction of Luminol with Superbasic Solids", American Chemical Society 39th Midwest Regional Meeting, Manhattan, KS, October 20-22, 2004 (Poster).

A. More, K. Hohn, and J.R. Schlup, "Preliminary Studies on the Deoxygenation of Fatty Acids to Hydrocarbon Feedstocks", American Chemical Society 39th Midwest Regional Meeting, Manhattan, KS, October 20-22, 2004.

J. M. Salazar and K.L. Hohn, "Preparation of High Surface Area VOHPO₄*0.5H₂O with the Alkoxide Method", American Chemical Society 39th Midwest Regional Meeting, Manhattan, KS, October 20-22, 2004.

C. Cao, A. Bourane, J.R. Schlup, and K.L. Hohn, "In Situ Infrared Study of the Catalytic Ignition of Methane on Pt/Al₂O₃", American Chemical Society 39th Midwest Regional Meeting, Manhattan, KS, October 20-22, 2004.

C.-C. Huang and K.L. Hohn, "Chemiluminescence from Surface Reaction on Metal-Oxide Nanocrystals", American Chemical Society 39th Midwest Regional Meeting, Manhattan, KS, October 20-22, 2004.

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FUNDED PROJECTS

"REU Site: Earth, Wind, and Fire: Sustainable Energy for the 21st Century", NSF, \$269,445, 3/09-2/12.

"Sensors for Detection of Chemical and Explosive Weapons" (with Anthony), Urban Operations Laboratory, M2 Technologies/DOD, \$98,457 + \$5000 for equipment, 10/07-3/09.

"Acid Functionalized Nanoparticles for Hydrolysis of Lignocellulosic Feedstocks" (with Wang, BAE), Center for Sustainable Energy, Kansas State University, \$84,250, 9/08-9/11.

"Nanotechnology for Renewable Energy" (with Li(Chem.), Higgins(Chem.), Klabunde(Chem.), Jankowiak(Chem.), Sun(Grain Science), Wang(BAE) others), NSF

EPSCoR, \$14,000 out of \$800,000 per year, 6/2009-5/2014.

“Equipment Grant to Purchase Gravimetric Microbalance Related to Chemical and Explosive Weapons Project” (with Anthony), Urban Operations Laboratory, M2 Technologies/DOD, \$120,000, Dec. 2008.

“X-ray Absorption Studies of Vanadium-Containing Metal Oxide Nanocrystals”, DOE EPSCoR, \$246,902, 7/01-6/04.

“X-ray Absorption Studies of Vanadium-Containing Metal Oxide Nanocrystals”, Kansas Technology Enterprise Corporation, \$51,052, 7/01-6/04.

“Catalytic Partial Oxidation”, NSF International Programs, \$12,400, 1/01-1/03.

“Environmental Air Quality”, NSF-EPSCoR, \$36,668 (direct costs) out of \$750,000, 9/00-8/02.

“Travel to the North American Catalysis Society Meeting”, Kansas State University President’s Faculty Development Awards, \$700, 9/00-8/01.

“Reactor System for Studying Catalytic Reactions of Biobased Feedstocks”, Schlup and Hohn, Ag Product Utilization Forum, K-State Research and Extension, \$15,630, 7/01-6/02.

“In Situ Infrared Studies of Catalytic Partial Oxidation at Millisecond Contact Times” (with Schlup), DOD DEPSCoR, \$500,000, 6/03-6/07.

“In Situ Infrared Studies of Catalytic Partial Oxidation at Millisecond Contact Times” (with Schlup), Kansas Technology Enterprise Corporation, \$175,000, 6/03-6/07.

“Urban Operations Laboratory – Infrared Emissions”, M2 Technologies/DOD, ~\$233,000 (direct costs) out of ~\$5,000,000, 08/02-08/06

“Urban Operations Laboratory – GelCaps”, M2 Technologies/DOD, ~\$504,138 (direct costs), 03/05-03/10

“X-ray Photoelectron Spectrometer for Characterization of Partial Oxidation Catalysts”, DOD, \$181,000, 04/05-03/06