

**Dr. A. Jochen Lauterbach**  
Professor and Smartstate Endowed Chair  
Department of Chemical Engineering  
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## **Education**

### **Free University of Berlin & Fritz-Haber Institute of the Max-Planck-Society, Berlin, Germany**

Physical Chemistry Department, 1992 – 1994; Degree: Dr. rer. nat. with Summa Cum Laude; Thesis Advisor: G. Ertl (Nobel Laureate in Chemistry, 2006).

### **University of Bayreuth, Germany**

Physics Department, Bayreuth, Germany, 1992; Five-year Diploma in Technical Physics; Thesis Advisor: J. Küppers.

## **Professional Experience**

**Professor and Smartstate Endowed Chair**, Chemical Engineering Department, University of South Carolina, 2010 – present.

**Director**, SC Smartstate Center for Strategic Approaches to the Generation of Electricity, University of South Carolina, 2010 – present.

**Visiting Professor**, Technical University of Vienna, Molecular Materials Chemistry, March – July 2025.

**CEO**, Charolina LLC, 2024 – present.

**Visiting Distinguished Professor**, ICAT, Hokkaido University, 2017.

**Professor**, Chemical Engineering Department, University of Delaware, 2006 – 2010.

**Associate Professor**, School of Chemical Engineering, University of Delaware, 2002 – 2006.

**Associate Director**, Center for Catalytic Science and Technology (CCST), 2002 – 2010.

**Associate Professor**, School of Chemical Engineering, Purdue University, 2000 – 2002.

**Assistant Professor**, School of Chemical Engineering, Purdue University, 1996 – 2000.

**Post-doctoral Research Associate**, University of California at Santa Barbara, Chemical Engineering Department, 1994 – 1996.

## **Honors and Awards**

- Idaho National Laboratory Distinguished Scientist Lecture, 2025.
- South Carolina Innovision Award for most innovative sustainable technology, 2024.
- Career Influencer Award, USC recognition for key influence on the career journey of undergraduate students, 2024 & 2025.
- Elected Director, AIChE Catalysis and Reaction Engineering Division, 2024 – present.

- Russel Research Award in Science and Engineering, University of South Carolina, 2016.
- Member, Board of Trustees, SC Governor's School for Science and Mathematics, 2012 – 2017.
- Marquis Who'sWho in America, 2006.
- Marquis Who'sWho in Science and Engineering, 2003.
- Union Carbide Innovation Recognition Award, 2000.
- Faculty Early Career Development Award (CAREER) from National Science Foundation, 1998.
- Feodor-Lynen-Fellowship of the Alexander von Humboldt-Foundation Bonn, Germany, 1994.

### **Membership in Professional Societies**

- American Institute of Chemical Engineers (AIChE).
- American Chemical Society (ACS).
- Materials Research Society (MRS).
- American Association for the Advancement of Science (AAAS).
- Alexander von Humboldt-Association of North America.

### **Graduate Students Advised**

<b>Student</b>	<b>Degree/Year</b>	<b>Current Employment/comments</b>
Griselda Bonilla	MS/1998	Intel
Timothy Dirk Pletcher	MS/ 1999	Eli Lilly
Karen Green	MS/ 1998	Pediatrician, Virginia
Jiangshan Yan	MS/ 1999	ExxonMobil
Elizabeth Peckham	MS/ 2001	ExxonMobil
Michael Austin Bock	MS/ 2001	Intel
Steven Lasko	MS/ 2002	SI Consulting
Paul Fanson	PhD/2002	Toyota North America
Jenny Bai	PhD/2002	Micron Technologies
Gudbjorg Oskarsdottir	PhD/2002	Managing Director, Innovation Center Iceland
Tanmay Lele	PhD/2002	Professor in Chemical Engineering, Texas A&M
Gozdem Kilaz	PhD/2003	Purdue University
Yu Fu	MS/ 2003	Unknown
Reed Hendershot	PhD/2004	Air Products

Aditya Bhan	PhD/ 2005	Professor of Chemical Engineering, University of Minnesota
Aaron Deskins	PhD/2005	Professor of Chemical Engineering, Worcester Polytech Institute
Brad Taylor	PhD/2005	Phillips 66
Noah McMillan	PhD/2006	Eastman Chemicals
Seth Washburn	PhD/2006	ExxonMobil
Ben Feist	MS/2006	American Air Liquide
Rohit Vijai	PhD/2007	ExxonMobil
Joe Dellamorte	PhD/2009	Nexceris
Danny Bilbao	PhD/2010	ExxonMobil
Elizabeth D'Addio	PhD/2011	Air Products
David Winski	MS/2009	KBR, Inc.
Beth Elliott	MS/2011	DuPont
John Bedenbaugh	PhD/2012	Air Products
Sungtak Kim	PhD/2014	Faculty member at Chung Nam National University, South Korea
Yanjiao Yi	PhD/2014	Scientist, USC
Aixa DelValle	MS/2013	Southern Company
Shahriar Salim	MS/2014	BASF
Zhiyong Wang	PhD/2015	Unknown
Michael Mayeda	PhD/2016	Molecular Express
Chao Wang	PhD/2017	Cummings
Stephanie Sanchez	MS/2017	ExxonMobil
Elizabeth Barrow	PhD/2019	Sibelco
Kate Mingle	PhD/2018	AbbVie
Travis Williams	PhD/2019	SciTech
Ben Ruiz-Yi	PhD/2020	Savannah River National Lab
Juan Jiminez	PhD/2020	Staff scientist, Brookhaven National Lab
Katherine McCollough	PhD/2021	Braschem
Sunkyu Kim	PhD/2021	Assistant Professor, Pukyong National University
Michael Royko	PhD/2022	BASF
Blake McQueen	PhD/2022	ExxonMobil

Andrew Jaeschke	MS/2022	Apple
Jennifer Naglic	PhD/2024	Savannah River National Lab
Kaveh Shariati	PhD/2024	LOOP CO <sub>2</sub>
Withana Jayarathna	PhD/2024	Post-doc, Mississippi State University
Kanan Shikhaliyev	PhD 2025	Post-doc, UC Berkeley
Samuel Drummond	PhD/2026	Bayer
Ehsan Ebadzadeh	PhD/2028 (exp.)	
Patrick Holcombe	MS/2026 (exp.)	
Sarah Stofik	PhD/2029 (exp.)	
Tori Rogers	PhD/2030 (exp.)	

### **Professional Service since 2010**

- Summer research program advisor, SC Governor's School for Science and Mathematics, 2012 - present.
- Member, Board of Trustees, SC Governor's School for Science and Mathematics, 2012 - 2017.
- College of Engineering E-week, display and demos on electricity, 2013 - present.
- Heathwood Hall, Middle School lectures/demonstrations on energy in the 21st century, 2014 - present.
- Heathwood Hall High School science project advisor, 2014 - 2019.
- SC Junior Academy of Sciences, volunteer judge, 2015 - present.
- Lecturer, USC summer school on energy, teacher training for K-8 teachers from South Carolina, 2016-2018.
- Lecturer, summer teacher workshop of the Power Cooperatives of South Carolina, 2015 - present.
- International Advisory Board of the Workshops on Combinatorial Materials Science and Technology in Cairns, London, Golden, and Hong Kong since 2014.
- Conference chair for the 7<sup>th</sup> International Workshop on Combinatorial Materials Science and Technology in Charleston, October 2012.
- Editorial boards of *Catalysts* and *Frontiers in Energy Research*.
- Conference Secretary, NAM 29, Atlanta, GA, June 2025.
- Director, AIChE Catalysis and Reaction Engineering Division, 2024 – present.

### **Teaching and Advising Highlights**

- Developed six new courses, ranging from an Advanced Lab Course for undergraduate students to a course in Next Energy to a soft-skills course for beginning PhD students.
- Advised over 110 undergraduate researchers. 39 students went to graduate school.
- Director/co-director of six NSF-Research Experience for Undergraduates programs.

- Co-director of the first NSF-IGERT graduate training program in South Carolina.
- Three-time advisor for AIChE ChE car team.
- Advisor for USC ChE Cube undergraduate student team, won first place at international CO<sub>2</sub> capture competition in 2023, placed 5<sup>th</sup> in 2024, and 9<sup>th</sup> in 2025.
- Faculty advisor for the Gamecock Racing Club 2025 - present.
- Workshop instructor for middle and high school teachers for over 10 years.

### **Published & Submitted Work (peer-reviewed)**

*(as of April 2026: h-index: 49; i10-index: 124; total citations: 8015; information retrieved from Google Scholar)*

*\* denotes the corresponding author*

1. J. Lauterbach, M. Wittmann and J. Küppers\*, "Adsorption of CO on Ni(100): a FTIRAS - TDS study", Surface Science 279; 287-296, 1992.
2. J. Lauterbach, M. Wittmann and J. Küppers\*, "A FTIRAS study of CO adsorbed at Ni(100) surfaces", Berichte der Bunsengesellschaft für Physikalische Chemie 97; 326-328, 1993.
3. J. Lauterbach, G. Haas, H.H. Rotermund and G. Ertl\*, "Spatio-temporal pattern formation on polycrystalline platinum surfaces during catalytic CO oxidation", Surface Science 294; 116-130, 1993.
4. H.H. Rotermund\*, J. Lauterbach and G. Haas, "The formation of subsurface oxygen on Pt(100)", Applied Physics A 57(6); 507-511, 1993.
5. J. Lauterbach and H.H. Rotermund\*, "Spatio-temporal pattern formation during the catalytic CO-oxidation on Pt(100)", Surface Science 311; 231-246, 1994.
6. J. Lauterbach, K. Asakura and H.H. Rotermund, "Subsurface oxygen on Pt(100): kinetics of the transition from chemisorbed to subsurface state and its reaction with CO, H<sub>2</sub>, and O<sub>2</sub>", Surface Science 313(1-2); 52-63, 1994.
7. M.D. Graham, I.G. Kevrekidis, K. Asakura, J. Lauterbach, K. Krischer, H.H. Rotermund and G. Ertl, "Effects of boundaries on pattern formation: catalytic oxidation of CO on platinum", Science 264; 80-82, 1994.
8. J. Lauterbach and H.H. Rotermund, "Gas-phase coupling in the CO oxidation reaction on polycrystalline platinum", Catalysis Letters 27; 27-32, 1994.
9. V. Gorodetskii, J. Lauterbach, H.H. Rotermund and G. Ertl, "Coupling between adjacent crystal planes in heterogeneous catalysis by propagating reaction-diffusion waves", Nature 370; 276-279, 1994.
10. K. Asakura, J. Lauterbach, H.H. Rotermund and G. Ertl, "Modification of spatio-temporal pattern formation in an excitable medium by continuous variation of its intrinsic parameters: CO oxidation on Pt(110)", Physical Review B 50; 8043-8046, 1994.
11. K. Asakura, J. Lauterbach, H.H. Rotermund and G. Ertl, "Spatio-temporal concentration patterns associated with the catalytic oxidation of CO on Au covered Pt(110) surfaces", Journal of Chemical Physics 102; 8175-8184, 1995.
12. M.D. Graham, M. Bär, I.G. Kevrekidis, K. Asakura, J. Lauterbach, H.H. Rotermund, and G. Ertl, "Catalysis on micro-structured surfaces: Pattern formation during CO oxidation in complex Pt domains", Physical Review E 52; 76-93, 1995.

13. M. Schick, J. Lauterbach, and W.H. Weinberg, "Adsorption of CO and hydrogen on the K-modified Ir(111)", Journal of Vacuum Science and Technology A 14; 1448-1452, 1996.
14. J. Lauterbach, M. Schick, and W.H. Weinberg, "Coadsorption of CO and hydrogen on the Ir(111) surface", Journal of Vacuum Science and Technology A 14; 1511-1515, 1996.
15. J. Lauterbach, M. Schick, R.W. Boyle, W.J. Mitchell, B. Meng and W.H. Weinberg, "The adsorption of CO on Ir(111) investigated with FT-IRAS", Surface Science 350; 32-44, 1996.
16. M. Schick, J. Lauterbach, and W.H. Weinberg, "The coadsorption of hydrogen and potassium on Ir(111)", Surface Science 360; 255-260, 1996.
17. R.W. Boyle, J. Lauterbach, W.J. Mitchell, M. Schick, and W.H. Weinberg, "Chemisorption of CO on the Ir(111) surface", Industrial & Engineering Chemistry Research - Eli Ruckenstein Festschrift 35(9); 2986-2992, 1996 [*Invited Contribution*].
18. J. Lauterbach, M. Sushchikh, and W.H. Weinberg, "Chemisorption of CO on the Ir(111) Surface: Does Adsorption Assisted desorption occur?", Zeitschrift für Physikalische Chemie - Gerhard Ertl Festschrift, 198(1-2); 99-112, 1997, [*Invited Contribution*].
19. K. Asakura, J. Lauterbach, H.H. Rotermund and G. Ertl, "Spatio-temporal patterns on a submonolayer Au-modified Pt(100) surface", Surface Science, 374(1-3); 125-141, 1997.
20. M. Sushchikh, J. Lauterbach, and W.H. Weinberg, "Chemisorption of CO on the Ir(111) surface: Adsorption and desorption kinetics measured with in situ vibrational spectroscopy", Journal of Vacuum Science and Technology A, 15(3); 1630-1635, 1997.
21. M. Sushchikh, J. Lauterbach, and W.H. Weinberg, "Adsorption and desorption kinetics of CO on Ir(111): Bridging the pressure gap", Surface Science, 393(1-3); 135-140, 1997.
22. S. Lau, J. Right, K. Stavens, J. Whitaker, Z. Liu, and J. Lauterbach, "Do-it-yourself attenuated total reflectance cell designed and constructed in a laboratory course: A versatile and economical alternative to commercial designs", The Chemical Educator; 2(4), 1997.
23. J. Lauterbach, S. White, X. Lui, G.M. Bodner, and W.N. Delgass, "A novel laboratory course on advanced chemical engineering experiments", Chemical Engineering Education, 31(4); 260-265, 1997.
24. G. Haas, T.D. Pletcher, G. Bonilla, T.A. Jachimowski, H.H. Rotermund, and J. Lauterbach, "Ellipsomicroscopy for surface imaging - A novel tool to investigate surface dynamics", Journal of Vacuum Science and Technology A, 16(3); 1117-1121, 1998.
25. T.A. Jachimowski and J. Lauterbach, "A combined pressure reaction cell – UHV chamber with sample transfer system", Review of Scientific Instruments, 69(7); 2757-2761, 1998.
26. G. Bonilla, T.D. Pletcher, G. Haas, and J. Lauterbach, "Unsteady-state behavior of CO oxidation over a supported Pt catalyst in the Torr range", Reaction Kinetics and Catalysis Letters, 65(1); 3-8, 1998.
27. J. Lauterbach, K. Asakura, P.B. Rasmussen, H.H. Rotermund, M. Bär, M.D. Graham, I.G. Kevrekidis, and G. Ertl, "Catalysis on mesoscopic composite surfaces: Influence

- of palladium boundaries on patten formation during CO oxidation on Pt(110)", Physica D - Nonlinear Phenomena, 123(1-4); 493-501, 1998.
28. T. Lee, J. Liu, D.B. Janes, V.R. Kolagunta, J. Dicke, M.R. Melloch, D. McInturff, J.M. Woodall, R.P. Andres, J. Lauterbach, and R. Reifengerger, "An ohmic nanocontact to GaAs", Applied Physics Letters, 74(19); 2869-2871, 1999.
  29. J. Lauterbach, G. Bonilla, and T.D. Pletcher, "Unsteady-state behavior of CO oxidation over supported Pt catalysts and Pt single crystals: A comparison in the Torr pressure range", Chemical Engineering Science, 54(20); 4501- 4512, 1999.
  30. D.B. Janes, R.P. Andres, M. Batistuta, E.H. Chen, J. Dicke, V.R. Kolagunta, J. Lauterbach, T. Lee, J. Liu, M.R. Melloch, E.L. Peckham, T.D. Pletcher, R. Reifengerger, H.U. Ueng, B.L. Walsh, J.M. Woodall, C.K. Kubiak, and B. Kasibhatla, "Nanoelectronic device applications of a chemically stable GaAs structure", Journal of Vacuum Science and Technology B, 17; 1773-1777, 1999.
  31. C.M. Snively, S. Katzenberger, G. Oskarsdottir, and J. Lauterbach, "Fourier Transform Infrared imaging utilizing a rapid-scan spectrometer", Optics Letters, 24(24); 1841-1843, 1999.
  32. David B Janes, RP Andres, EH Chen, J Dicke, VR Kolagunta, J Lauterbach, T Lee, J Liu, MR Melloch, EL Peckham, T Pletcher, R Reifengerger, HJ Ueng, BL Walsh, JM Woodall, CP Kubiak, B Kasibhatla, "Self-assembly based approaches for metal/molecule/semiconductor nanoelectronic circuits", VLSI, IEEE, 1999.
  33. J. Dicke, H.H. Rotermund, and J. Lauterbach, "Ellipsomicroscopy for surface imaging: Contrast mechanism, enhancement, and application to CO oxidation on Pt(110)", Journal of the American Optical Society A: Optics, Image Science, and Vision, 17(1); 135-141, 2000.
  34. C.M. Snively, S. G. Oskarsdottir, and J. Lauterbach, "Chemically sensitive high throughput parallel analysis of solid phase supported chemical libraries", Journal of Combinatorial Chemistry, 2(3); 243-245, 2000.
  35. X. Wen, J. Lauterbach, and E.I. Franses, "Surface densities of adsorbed monolayers of aqueous sodium myristate inferred from surface tension and reflection absorption infrared spectroscopy", Langmuir, 16(17); 6987-6994, 2000.
  36. J. Dicke, H.H. Rotermund, and J. Lauterbach, "Formation of surface oxides on Pt(100) during CO oxidation in the millibar pressure range", Surface Science, 454; 352-357, 2000.
  37. J. Bai, C. Snively, W.N. Delgass, and J. Lauterbach, "Formation of ultra-thin polystyrene films using a two-step deposition/polymerization process", Macromolecules, 34(5); 1214-1220, 2001.
  38. T. Lele, T.D. Pletcher, and J. Lauterbach, "Spatio-temporal pattern formation during CO oxidation on Pt(100) at elevated pressures", AIChE Journal, 47(6); 1418-1425, 2001.
  39. C.M. Snively, G. Oskarsdottir, and J. Lauterbach, "Parallel screening of supported catalyst arrays using hyperspectral imaging", Angewandte Chemie - International Edition, 40(16); 3028-3030, 2001 [*selected by editor as "Hot Paper" August 2001*].
  40. C.M. Snively, G. Oskarsdottir, and J. Lauterbach, "Parallelanalyse der Reaktionsprodukte von Katalysatorbibliotheken", Angewandte Chemie, 113(16); 3117-3120, 2001.

41. J. Lauterbach, G. Oskarsdottir, and C.M. Snively, "Chemically sensitive parallel analysis of combinatorial catalyst libraries", Catalysis Today, 67(4); 357-368, 2001 [*invited article*].
42. P. Fanson, W.N. Delgass, and J. Lauterbach, "Island formation during kinetic rate oscillations in the oxidation of CO over Pt/SiO<sub>2</sub>: A time-resolved FTIR study", Journal of Catalysis, 204(1); 35-52, 2001 (impact factor = 6.8).
43. P. Fanson, M.W. Stradt, W.N. Delgass, and J. Lauterbach, "Infrared evidence for the existence of nitrate species on Cu-ZSM5 during isothermal rate oscillations during N<sub>2</sub>O decomposition over Cu-ZSM5", Catalysis Letters, 77(1); 15-19, 2001.
44. C.M. Snively and J. Lauterbach, "Sampling accessories for the high throughput analysis of combinatorial libraries using spectral imaging", Spectroscopy, 17(4); 26-33, 2002 [*invited article*].
45. J. Lauterbach, C.M. Snively, and G.H. Oskarsdottir, "Chemically Sensitive High-throughput Parallel Analysis of Resin Bead-supported Combinatorial Libraries", ACS Symposium Series, 814, 65-86, 2002.
46. T. Lele and J. Lauterbach, "Non-linear phenomena during CO oxidation on Pt(100) – experiments and simulations", Chaos, 12(1); 164-172, 2002 [*invited article*].
47. P.T. Fanson, M.W. Stradt, J. Lauterbach, W.N. Delgass, "The effect of Si/Al ratio and copper exchange level on isothermal kinetic rate oscillations for N<sub>2</sub>O decomposition over Cu-ZSM-5: a transient FTIR study", Applied Catalysis B-Environmental, 38(4); 331-347, 2002.
48. J. Bai, C. Snively, W.N. Delgass, and J. Lauterbach, "Formation of polypyrrole nanofilms using a two-step deposition/polymerization process", Advanced Materials, 14(21); 1546-1549, 2002.
49. C.M. Snively and J. Lauterbach, "Sampling Accessories for the High-throughput Analysis of Combinatorial Libraries using Spectral Imaging", ChemInform, 33(29), 2002.
50. R. Hendershot, P. Fanson, C.M. Snively, and J. Lauterbach, "High-throughput catalytic science: parallel analysis of transients in catalytic reactions", Angewandte Chemie-International Edition, 42(10); 1152-1155, 2003.
51. R. Hendershot, P. Fanson, C.M. Snively, and J. Lauterbach, "Hochdurchsatz Analyse von Katalysatoren: Parallel Analyse von transientem Verhalten", Angewandte Chemie, 115(10) 1184-1187, 2003.
52. J.M. Caruthers, J. Lauterbach, K.T. Thomson, V. Venkatasubramanian, C.M. Snively, A. Bhan, S. Katare, and G. Oskarsdottir, "Catalyst Design: Knowledge Extraction from High Throughput Experimentation", Journal of Catalysis; 216(1) 98-109, 2003 (impact factor = 6.8).
53. T. Lele, J. Lauterbach, and D. Ramkrishna, "Mathematical analysis of physico-chemical processes on catalytic surfaces", AIChE Journal, 49(8); 2158-2172, 2003.
54. P. Fanson, M. Horton, W.N. Delgass, and J. Lauterbach, "FTIR analysis of storage behavior and sulfur tolerance in barium-based nitrogen storage and reduction (NSR) catalysts", Applied Catalysis B, 46(2); 393-413, 2003.
55. R. J. Hendershot, S.S. Lasko, M.-F. Fellmann, G. Oskarsdottir, W.N. Delgass, C.M. Snively, and J. Lauterbach, "A novel reactor system for high throughput catalyst testing under realistic conditions", Applied Catalysis A, 254(1); 107-120, 2003 (impact factor = 4.5).

56. R. J. Hendershot, B. Rogers, C.M. Snively, B. Ogunnaike, and J. Lauterbach, "Development and Optimization of NO<sub>x</sub> Storage and Reduction Catalysts Using Statistically Guided High-throughput Experimentation", Catalysis Today, 98; 375-385, 2004.
57. R. J. Hendershot, B. Feist, R. Vijai, C.M. Snively, B. Ogunnaike, and J. Lauterbach, "Multivariate and univariate analysis of infrared imaging data for high-throughput studies of NH<sub>3</sub> decomposition and NO<sub>x</sub> storage and reduction catalysts", Measurement Science and Technology, 16(1); 302-208, 2005 [*paper among top 5% downloaded from publisher*].
58. R. Vijay, R. J. Hendershot, S. M. Rivera-Jiménez, W. B. Rogers, B. J. Feist, C. M. Snively, J. Lauterbach, "Noble Metal Free NO<sub>x</sub> Storage Catalysts Using Cobalt Discovered via High-throughput Experimentation", Catalysis Communications, 6(2); 167-171, 2005.
59. R. J. Hendershot, C.M. Snively, and J. Lauterbach, "High-throughput Catalytic Science", Chemistry – A European Journal, 11(3); 806-814, 2005 [*invited Concentrate article*].
60. A. Deskins, J. Lauterbach, and K. Thomson, "Lifting the Pt{100} Surface Reconstruction Through Oxygen Adsorption: A DFT Analysis", Journal of Chemical Physics, 122(18); 184709, 2005.
61. B. Taylor, J. Lauterbach, and W.N. Delgass, "Gas-phase Epoxidation of Propylene over Small Gold Ensembles on TS-1", Applied Catalysis A, 291(1-2); 188-198, 2005 (impact factor = 4.5).
62. N. McMillan, T. Lele, C.M. Snively, and J. Lauterbach, "Subsurface oxygen formation on Pt(100): Experiments and Modeling", Catalysis Today, 105(2); 244-253, 2005 [*invited article for special issue on Oscillatory Behaviour of Heterogeneous Catalytic Reactions*].
63. C.M. Snively and J. Lauterbach, "Experimental aspects of asynchronous sampling in FTIR imaging", Applied Spectroscopy, 59(9); 1075-1081, 2005 [*selected by the editor as Accelerated Paper; one such paper is selected per journal issue*].
64. I. Takeuchi, J. Lauterbach and M. Fasolka, "Combinatorial materials synthesis", Materials Today, 8(10); 18-26, 2005.
65. B. Taylor, L. Cumarananatunge, J. Lauterbach, and W.N. Delgass, "Gas-phase epoxidation of propylene over small gold ensembles on TS-1", Gold Bulletin, 38(3); 133-133, 2005.
66. S. Washburn, E. Townsend, J. Lauterbach, and C.M. Snively, "Desorption and photopolymerization behavior of mixed and multilayered styrene-pyrrole nanofilms", Applied Surface Science, 252(18); 6228-6235, 2006.
67. R. J. Hendershot, R. Vijai, C.M., and J. Lauterbach, "High-throughput study of the influence of H<sub>2</sub>O and CO<sub>2</sub> on the performance of Nitrogen storage and reductions (NSR) catalysts", Applied Surface Science, 252(7); 2588-2592, 2006.
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70. R. Vijay, C.M. Snively, and J. Lauterbach, "Performance of Co-containing NO<sub>x</sub> Storage and Reduction Catalysts as a Function of Cycling Conditions", Journal of Catalysis, 243(2); 368-375, 2006 (impact factor = 6.8).
71. S. Washburn, J. Lauterbach, and C.M. Snively, "Polymerizing the unpolymerizable – The case of 1,2-disubstituted ethylenes", Macromolecules, 39(24); 8210-8212, 2007.
72. J. C. Dellamorte, J. Lauterbach and M. A. Barteau, "Rhenium Promotion of Ag and Cu-Ag Bimetallic Catalysts for Ethylene Epoxidation", Catalysis Today, 120(2); 182-185, 2007.
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74. R. Hendershot, R. Vijay, C.M. Snively, and J. Lauterbach, "Response surface study of the performance of lean NO<sub>x</sub> Storage Catalysts as a Function of reaction conditions and catalyst composition", Applied Catalysis B, 70(1); 160-171, 2007 (impact factor = 11.7).
75. B. Taylor, J. Lauterbach and W. N. Delgass, "The Effect of Mesoporous Scale Defects on the Activity of Au/TS-1 for the Epoxidation of Propylene", Catalysis Today, 123(1-4); 50-58, 2007.
76. J. C. Dellamorte, R. Vijay, C. M. Snively, M. Barteau, and J. Lauterbach, "High-throughput reactor system with individual temperature control for the investigation of monolith catalysts", Review of Scientific Instruments, 78(7); 072211, 2007.
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78. R. Vijay and J. Lauterbach\*, "Design of experiments combined with high-throughput experimentation for the optimization of DeNO<sub>x</sub> catalysts", Studies in Surface Science and Catalysis, 171, 325-359, 2007.
79. W. Pyrz, R. Vijay, J. Binz, J. Lauterbach, and D.J. Buttrey\*, "Characterization of K-promoted Ru catalysts for ammonia decomposition discovered using high-throughput experimentation", Topics in Catalysis, 50(1-4), 180-191, 2008 (impact factor = 2.4).
80. N. McMillan, C.M. Snively, and J. Lauterbach\*, "Spatio-temporal control of reaction-diffusion patterns through local micro-dosing", AIChE Journal, 55(1); 172-179, 2008.
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