

GALEN J. SUPPES, Ph.D., P.E.
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EDUCATION:

The Johns Hopkins University,	Chemical Engineering	Ph.D., 1989
Kansas State University,	Chemical Engineering	B.S., 1985
Swiss Federal Tech. Inst.	Exchange Student	10/83-8/84
University of Houston	Post-Doc Course Work	8/91-5/92

PROFESSIONAL EXPERIENCE:

1/23-present	CEO, HS-Drone LLC, a Virginia LLC
6/17-12/23	CEO, Homeland Technologies, LLC.
9/07-12/23	Chief Scientific Officer, Homeland Technologies, LLC. (Summer, consulting).
9/06-5/17	Professor, J.C. Dowell Professorship, Chemical Engineering, MU.
9/02-5/08	Chief Scientific Officer, Renewable Alternatives, LLC. (Summer, consulting).
8/01-9/06	Associate Professor, Chemical Engineering, MU (Doctoral Faculty).
4/01-6/01	Visiting Scholar, Chemical Engineering, Curtin University, Perth, Australia.
8/98-8/01	Associate Professor, Chemical and Petroleum Engineering, The University of Kansas (KU), (Appointment to Graduate Faculty, 1995-2001).
8/92-8/98	Assistant Professor, Chem. & Pet. Engineering, KU.
5/93-7/93	Dept. of Energy Summer Sabbatical - Morgantown Energy Tech. Center.
1/89-7/92	Senior Research Engineer, Polyurethanes Process Research, Dow Chem., TX.
5/85-8/85	Summer Internship, Polyurethanes TS&D, Dow Chemical, TX.

Google Scholar Link:

>8250 citations of work.
>125 refereed publications.

AWARDS AND HONORS:

FELLOW – American Institute of Chemical Engineers (AIChE)
Registered Professional Engineer – Missouri, Kansas (not renewed), Texas (not renewed).
2006 Presidential Green Chemistry Challenge Award - Presented at the 2006 ACS 10th Annual Green Chemistry and Engineering Conf., Academy of Sciences Building.
(Invited Speaker)* 2006 Gordon Conference (Green Chemistry), Oxford University.
(Invited Plenary Speaker)* 2014 The Seventh Tokyo Conference on Advanced Catalytic Science and Technology (TOCAT7), June 1-6, 2014, Kyoto, Japan.
(Invited Speaker)*2007 ICIS Oleochemical Conference, Brussels, Belgium 23-24 October.
2014 Best Presentation Award (fundamental research), CPI Conference (urethane polymers industry).
2012 (?) Certificate of Recognition for Entrepreneurial Spirit, MU Award.
2010 Outstanding Professor - Certificate of Appreciation Fall semester senior class.
2006 AOCS - SDA/NBB Glycerin Innovation Research Award - International American Oil Chemists Society, presented St. Louis meeting, May of 2006.
2006 Missouri Soybean Association Research Award – for advancing the use of soybeans.
2005 State of Missouri, Senate Recognition, Senate Resolution Number 292. Award for small business, Renewable Alternatives, and commercialization of Phase Change Materials in the State of Missouri.
2004 Excellence in Business Award of University of Missouri-Columbia Business Development Program, Presented to Drs. W.R. Sutterlin and G.J. Suppes.
2001 C.Y. O'Connor Fellow – Division of Engineering and Science, scholar for teaching at Curtin University (Perth, Australia).

1998 Excellence in Teaching Award, Student's Choice, Department of Chemical and Petroleum Engineering.

* International conference, all expenses paid, Kyoto Conference also included honorarium.

PHD ADVISEES

Completed

1. Goff, Michael J	SS2004
2. Dasari, Mohan Prasad	WS2006
3. Chiu, Chuang-Wei	FS2006
4. Kiatsimkul, Pimphan	FS2006
5. Lopes, Shailesh Martin	SS2007
6. Shah, Parag Sureshchandra	SS2008
7. Yan, Wei	SS2008
8. Lubguban, Arnold Ano-os	SP2009
9. Lozada-Rodriguez, Zuleica Lozada	SS2009
10. Sawyer, Bryan Dustin	FS2010
11. Gordon, Michael Joseph	SP2013
12. Hilton, Ramsey Mitchell	FS2013
13. Dornbusch, Donald	SP2015
14. Ghoreishi, Rima	FS2015
15. Zhao, Yusheng	FS2016
16. Al-Moamori, Harith	SP2017

TEACHING WORKSHOPS

2012 three-day workshop on online course methodologies.

2010 Aspen Training Workshop, Houston, TX, August 15.

2003 Writing Intensive Course, The University of Missouri-Columbia.

2000 ChemCAD Simulation Package Training, Houston, TX.

1995-2000, College of Engineering, Dean's annual teaching effectiveness workshops (1-2 day sessions).

1995 National Effective Teaching Institute (5-day), Anaheim, CA, American Society for Engineering Education.

OTHER WORKSHOPS

2015 NSF SBIR/STTR Phase I Grantee Fall Workshop, September 28, 2015 - September 30, 2015, at the Hyatt Regency Crystal City.

BOOKS

Sustainable Power Technologies and Infrastructure. G.J. Suppes and T. S. Storvick. Academic Press Sustainable World Series, Elsevier Press, Boston, 2016.

Sustainable Nuclear Power. G.J. Suppes and T. S. Storvick. Academic Press Sustainable World Series, Elsevier Press, Boston, 2007.

Energy Disclosed: Abundant Resources and Unused Technology. G.J. Suppes and T. S. Storvick. Published by Renewable Alternatives, LLC. (out of print) Columbia, MO. 2004.

Conference Proceedings - Topical Conference on Fuel Cell Technology. Editor: G.J. Suppes, Conference Proceedings, Fuel Cell Topical, AIChE Annual Meeting, by AIChE, New York, November 16-21, San Francisco, 2004.

Conference Proceedings - 2nd Topical Conference on Fuel Cell Technology. Editors: G.J. Suppes and G.J. Igwe. AIChE Proceedings Publication, AIChE 2003 Spring National Meeting, New Orleans, AIChE, New York, 2003.

Topical Conference on Vehicular Fuel Performance, Editor, G.J. Suppes, AIChE, New York, 2000.

PATENTS AND PATENT APPLICATIONS (non-US patents are not tracked):

Patent Applications

PCT/US24/35242, Ground Effect Aircraft, Filed 24-JUN-2024, see <https://hs-drone.com/#4a2880f0-1c3a-4424-98df-f3f372eec707> .

PCT/US24/62323, Ground Effect Machine System, Filed 30-DEC-2024.

US?? Flat Plate Airfoil Platform Vehicle (continuation in part).

U.S. Patents (Patent Number, Title)

12,330,798	Flat Plate Airfoil Platform Vehicle
11,186,367	Multicopter with Improved Propulsor and Failsafe Operation
10,589,838	Multicopter with Passively-Adjusting Tiltwing
10,322,729	Terreplane Transportation System
9,517,445	High surface area carbon and process for its production
9,461,298	Spiral-wound convection battery and methods of operation
9,404,027	Method of producing lower alcohols from glycerol
8,926,932	High surface area carbon and process for its production
8,911,893	Convection battery configuration for connective carbon matrix electrode
8,691,177	High surface area carbon and process for its production
8,563,783	Method of producing lower alcohols from glycerol
8,471,072	Soy-based polyols
8,252,961	Method of producing lower alcohols from glycerol
8,178,593	Urethane formulation
8,017,816	Method of producing lower alcohols from glycerol
7,943,805	Method of producing lower alcohols from glycerol
7,816,567	Method of producing lower alcohols from glycerol
7,696,370	Soy based polyols
7,663,004	Method of producing lower alcohols from glycerol
6,574,971	Fatty-acid thermal storage devices, cycle, and chemicals
6,056,793	Blended compression-ignition fuel containing light synthetic crude and blending stock
5,468,839	Hydroxy-functional polyether finishing process
5,398,497	Method using gas-gas heat exchange with an intermediate direct contact heat exchange fluid
5,146,853	Compact magnetic levitation transportation system

PUBLICATIONS & BOOK SERIES (refereed and pre-print)

1. Suppes, A.B., and Suppes, G., "Expanding Electric and Vehicle-Based Solar Transit Options with Breakthrough Vehicular Efficiencies," *World Electric Vehicle Journal*, Vol. 16, No. 11, **2025**, pp. 628. <https://doi.org/10.3390/wevj16110628>
2. Suppes, A., and Suppes, G., "Optimizing Computational Efficiency with Preliminary 2D CFD for Ground-Effect Flight Transit Vehicle Design," *Advances in Aerospace Science and Technology*, **2025**, **Accepted for Publication (Dec 2025)**
3. Suppes, A.B., and Suppes, G.J., "Aerodynamics: A Different Perspective with Profound Implications," *Frontiers in Mechanical Engineering Fluid Mechanics*, Vol. 11, **2025**, <https://doi.org/10.3389/fmech.2025.1616607>

4. Suppes, A., and Suppes, G., "Low-Risk High-Reward Transition to Low Pressure Tunnel Transit," *Engineering and Technology Journal*, Vol. 10, No. 5, **2025**, pp. 4994–5004. <https://doi.org/10.47191/etj/v10i05.28>
5. Suppes, A., Suppes, G., and Al-Moameri, H., "Overcoming Boundary-Layer Separation with Distributed Propulsion," *Sustainable Engineering and Technological Sciences*, Vol. 1, No. 01, **2025**, pp. 71–89. <https://doi.org/10.70516/7a9e2y30>
6. Suppes, A., Suppes, G., Lubguban, A., and Al-Maomeri, H., "An Airfoil Science Including Causality," *Sustainable Engineering and Technological Sciences*, Vol. 1, No. 2, **2025**, pp. 12–31. <https://doi.org/10.70516/j215nh63>
7. Suppes, A., and Suppes, G., "Highly-Efficient Low-AR aerial vehicles in urban transit," *Proceedings of the 2024 Transportation Research Board Annual Meeting*, January, 2024, <http://www.terretrans.com/tech.html>
8. Suppes, A., and Suppes, G., "Review and Evolution of Ground Effect Flight Transit Vehicles (GEFT)," *Cambridge Open Engage* (strategic preprint), **2025**, <https://doi.org/10.33774/coe-2025-sw011>.
9. Suppes, A., and Suppes, G., "Thermodynamic Analysis of Distributed Propulsion," *Research Square* (strategic preprint), **2023**, pp. 1–26. <https://doi.org/10.21203/rs.3.rs-4670270/v1>.
10. Suppes, A.B., and Suppes, G., "Thin Cambered Lifting Bodies in Ground Effect Flight," *Engrxix Engineering Archive* (strategic preprint), No. 1, **2024**, <https://doi.org/10.31224/4136>.
11. Suppes, A.B., and Suppes, G., "Digital Prototypes Analysis of Boundary Layer Separation Mitigation for Vehicles of High Thickness to Length", in writing (Nov-2025).
12. Suppes, A., and Suppes, G., "Extended Implications of Racecar Ground-Effect Machines," *Cambridge Engage* (preprint in revision), **2025**, <https://doi.org/10.33774/coe-2025-9xnych>.
13. Suppes, A., and Suppes, G., "Seamless Multimodal Passenger-Oriented Service for River and Bay Communities," *TechRxiv* (preprint in revision), **2025**, <https://doi.org/10.36227/techrxiv.173932982.23714576/v1>.
14. Suppes, A., and Suppes, G., "GEFT Scheduling to Maximize Value of Current Infrastructure and Upside Potential," *Cambridge Open Engage* (preprint in revision), **2025**, <https://doi.org/10.33774/coe-2025-x07tg>.
15. Suppes, G., and Suppes, A., "Critical Data and Thinking in Ground Effect Vehicle Design," Cambridge University Press, Cambridge Open Engage (preprint in revision), 2024. <https://www.cambridge.org/engage/https://doi.org/10.33774/coe-2024-76mzx>.
16. Suppes, A., and Suppes, G., "New Benchmarks in Ground-Effect Flight Energy Efficiency," (preprint in revision) July 102024 <https://www.researchsquare.com/article/rs-4707178/v1https://doi.org/10.21203/rs.3.rs-4707178/v1> [cited Jul 29 2024].
- 17.
18. Suppes, G., and Suppes, A., "Ground Effect Flight Transit (GEFT) in Subways," Vol. 1, **2024**, <https://doi.org/10.33774/coe-2024-6w0lw>.
19. Suppes, A., and Suppes, G., "Extreme Multimodality and Seamless Transit," *TechRxiv Preprints*, **2025**, <https://doi.org/10.36227/techrxiv.173932968.82108672/v1>.
20. Suppes, A., and Suppes, G., "Ground Effect Flight Transit (GEFT) – Towards Trans-Modal Sustainability," Vol. 1, **2024**, <https://doi.org/10.33774/coe-2024-prxvr>
21. Suppes, G., and Suppes, A., "Ground Effect Flight Transit (GEFT) – Approaches to Design," Cambridge University Press, Cambridge Open Engage, 2024. <https://www.cambridge.org/engage/coe/article-details/66b2340b01103d79c5e7ab23https://doi.org/10.33774/coe-2024-2c87q>.
22. Suppes, A., and Suppes, G., "Aerodynamic Lift Railcar Suspension – Faster, Quieter, More-Efficient," *Railway Engineering Science*, pp. 1–16. <https://img1.wsimg.com/blobby/go/bc011535-7f71-4d13-b8d1-a7b0a380884f/Railway.pdf>.
23. Suppes, G., and Suppes, A., "Computational Analysis of Towed Solar Platform Aircraft," *Research Square*, **2023**, pp. 1–29. <https://doi.org/10.21203/rs.3.rs-4670250/v2>.

24. Suppes G., Suppes A.B. Fixing Airplane Science-Analogies versus Basic Physics, published by Kindle (by Amazon), March 4, 2024.
25. Suppes G., Suppes A.B. Fixing Airplane Science-If we would have only known, published by Kindle (by Amazon), February 4, 2024.
26. Suppes G., Suppes A.B. Fixing Airplane Science-Ground effect aircraft and the Flying Railcar, published by Kindle (by Amazon), February 24, 2024.
27. Suppes A.B., Suppes G.J. TRBAM-24-04060 Highly-Efficient Low-AR aerial vehicles in urban transit, Proceedings of Transportation Research Board Annual Meeting, Current Issues in Transportation. January, 2024. Washington, D.C., 2024 (link <http://www.terretrans.com/tech.html>).
28. Suppes, G.J. 3D Urethane-Enhanced 3D Printing for Product Scaleup and Market Development Production, CPI Conference (2021), Denver, CO, October 5-7, 2021.
29. Suppes, G.J. Urethane-Enhanced 3D Printing and Materials' Needs for Burgeoning Aerial Drone Industry (poster), CPI Conference (2021), Denver, CO, October 5-7, 2021.
30. H Al-Moameri, L Jaf, GJ Suppes. Simulation approaches for the mechanisms of thermoset polymerization reactions. Molecular Catalysis (2021) 504, 111485.
31. Al-Moameri H., Y. Zhao, R. Ghoreishi, G.J. Suppes. Simulation Silicon Surfactant Rule on Polyurethane Foaming Reactions. Iranian Journal of Chemistry and Chemical Engineering (2020), Vol. 39.
32. Suppes, G.J. Al-Moameri., H. 3D Prototyping and Manufacturing - Urethane Enhancement and New Applications, CPI Conference (2019), Orlando, FL, October 7-9, 2019.
33. An S, Suppes GJ, Ghosh TK. Simulation of the Optimized Thermal Conductivity of a Rigid Polyurethane Foam during Its Foaming Process. Fibers and Polymers, (2019) 20 (2), 358-374.
34. Al-Moameri H., Jaf L., Suppes G.J. Simulation Approach to Learning Polymer Science. Journal: Journal of Chemical Education (2019), 95 (9), 1554-1561.
35. Suppes G.J. Reimagining Transportation - Base Case Calculations on Flying Aerial Tram System. Proceedings, Transportation Research Board Annual Meeting. Washington, D.C., 2018.
36. Dizon, A.C.O., An S., Lubguban A.A., Suppes G.J. Online quiz methods for remedial learning in chemical engineering. Education for Chemical Engineers (2018), 23, 18-24.
37. Siyu A, Dizon A C O, Suppes G J, Gosh T K. Attaining analysis, evaluation, and creation level of learning via online questions in polymer and chemical reaction engineering course, Journal of Online Engineering Education, 9, 1(3), 2018.
38. Lubguban A.A., Ruda R.J.G., Aquiatan R.H., Paclijan S., Magadan K.O., Balangao J.K.B., Escalera S.T., Bayron R.R., Debalucos B., Lubguban A.A., Hsieh F., Suppes G.J.. Soy-Based Polyols and Polyurethanes. KIMIKA (2017), 28 (1), 1-19.
39. An, S, Shen L., Suppes G.J.. Group contribution modeling of heat capacities in urethane-forming reactions. Fibers and Polymers (2017), 18 (6), 1031-1039.
40. Al-Moameri H., Ghoreishi R., Suppes G.J.. Impact of inter- and intra- molecular movements on thermoset polymerization. Chemical Engineering Science (2017), 161, 14-23.
41. Al-Moameri H., Jaf L., Suppes G.J.. Viscosity-dependent frequency factor for modeling polymerization kinetics. RSC Advances (2017), 7 (43), 26583-26592.
42. Hosseini, H., Dornbusch D., Suppes G.J.. Improved Electrochemical Performance of Alkaline Batteries Using Quaternary Ammonia Polysulfone-Functionalized Separators. Ind. Eng. Chem. Res.: Ahead of Print, 2016, 55(31), 8557-8566. .

43. Al-Moameri H, Zhao Y, Ghoreishi R, Suppes GJ. Simulation Blowing Agent Performance, Cell Morphology, and Cell Pressure in Rigid Polyurethane Foams. *Ind Eng Chem Res.* 2016;55:2336-44.
44. Suppes G.J., Al-Moameri H.. Insights from a Half-Decade of Urethane Reaction Simulation Development, CPI Conference, American Chemistry Council; Baltimore 9/16.
45. Al-Moameri H., Suppes G.J.. Impact of Mass Transfer limitation of Polyurethane Reactions. CPI Conference, American Chemistry Council; Baltimore, 9/16.
46. Zhao Y, Suppes GJ. Computational study on reaction enthalpies of urethane-forming reactions. *Polym Eng Sci.* 2015;55:1420-8.
47. Ghoreishi R, Suppes GJ. Modeling of Toluene Sulfonic Acid Catalyzed Oxide Addition Reaction for Soy-Based Polyol. *Ind Eng Chem Res.* 2015;54:91-9.
48. Ghoreishi R, Suppes GJ. Chain growth polymerization mechanism in polyurethane-forming reactions. *RSC Adv.* 2015;5:68361-8.
49. Fu Z, Suppes GJ. Group contribution modeling of viscosity during urethane reaction. *J Polym Eng.* 2015;35:11-20.
50. Dornbusch DA, Hilton R, Lohman SD, Suppes GJ. Experimental Validation of the Elimination of Dendrite Short-Circuit Failure in Secondary Lithium-Metal Convection Cell Batteries. *J Electrochem Soc.* 2015;162:A262-A8.
51. Al-Moameri H, Zhao Y, Ghoreishi R, Suppes GJ. Simulation of liquid physical blowing agents for forming rigid urethane foams. *J Appl Polym Sci.* 2015;132:n/a.
52. Al-Moameri H, Ghoreishi R, Zhao Y, Suppes GJ. Impact of the maximum foam reaction temperature on reducing foam shrinkage. *RSC Adv.* 2015;5:17171-8.
53. Y. Zhao, H. Al-Moameri, Y. Li R. Ghoreishi, G.J. Suppes. Modeling Impact of Surfactants on Polyurethane Foam Reaction, CPI Conference, American Chemistry Council; Orlando, 9/15.
54. H. Al-Moameri, G.J. Suppes, R. Ghoreishi, Y. Zhao , Simulation and Mass Balance of Blowing Agent Performance, CPI Conference, American Chemistry Council; Orlando, 9/15.
55. G.J. Suppes, R. Ghoreishi, Y. Zhao. The Use of Simulation for Characterizing Polyols with Unknown Properties, CPI Conference, American Chemistry Council; Orlando, 9/15.
56. Zhao Y, Zhong F, Tekeei A, Suppes GJ. Modeling reaction kinetics of rigid polyurethane foaming process. *Appl Catal, A.* 2014;469:229-38.
57. Zhao Y, Suppes GJ. Simulation of Catalyzed Urethane Polymerization: An Approach to Expedite Commercialization of Bio-based Materials. *Catal Surv Asia.* 2014;18:89-98.
58. Suppes GJ. Simulation as a tool for biopolymers design. *Science (Washington, DC, U S).* 2014;346:1055-6.
59. Shen L, Zhao Y, Tekeei A, Hsieh F-H, Suppes GJ. Density modeling of polyurethane box foam. *Polym Eng Sci.* 2014;54:1503-11.
60. Hilton R, Gordon M, Dornbusch D, Suppes GJ. Impact of separator solid-phase ion conductivity parameter on convection battery performance and modeling. *AIChE J.* 2014;60:3784-91.
61. Hilton R, Dornbusch D, Branson K, Tekeei A, Suppes GJ. Ultrasonic enhancement of battery diffusion. *Ultrason Sonochem.* 2014;21:901-7.
62. Ghoreishi R, Zhao Y, Suppes GJ. Reaction modeling of urethane polyols using fraction primary secondary and hindered-secondary hydroxyl content. *J Appl Polym Sci.* 2014;131:40388/1-6.

63. G.J. Suppes, R. Ghoreishi, Y. Zhao, H. Al-Moameri. Use of Simulation to Engineer Rigid Foams with Reduced Isocyanates, CPI Conference, American Chemistry Council; Dallas, 9/14.
64. G.J. Suppes, R. Ghoreishi, Y. Zhao, H. Al-Moameri, Y. Li. Simulation of Urethane Thermoset Polymerization – Redefining Rigid Foam Formulations, CPI Conference, American Chemistry Council; Dallas, 9/14.
65. H. Al-Moameri, G.J. Suppes, R. Ghoreishi, Y. Zhao. Simulation of Polyurethane Height Profile Using Matlab, CPI Conference, American Chemistry Council; Dallas, 9/14.
66. Y. Zhao, G.J. Suppes, R. Ghoreishi. Simulation of Catalyzed Urethane Polymerization--An Approach to Expedite Commercialization of Bio-Based Materials, CPI Conference, American Chemistry Council; Dallas, 9/14.
67. Zhao Y, Gordon MJ, Tekeei A, Hsieh F-H, Suppes GJ. Modeling reaction kinetics of rigid polyurethane foaming process. *J Appl Polym Sci*. 2013;130:1131-8.
68. Suppes GJ. Spiral-wound convection battery and methods of operation. Homeland Technologies, LLC, USA . 2013. p. 17pp.
69. Romanos J, Beckner M, Stalla D, Tekeei A, Suppes G, Jalisatgi S, et al. Infrared study of boron-carbon chemical bonds in boron-doped activated carbon. *Carbon*. 2013;54:208-14.
70. Hilton R, Bick P, Tekeei A, Leimkuehler E, Pfeifer P, Suppes GJ. Mass Balance and Performance Analysis of Potassium Hydroxide Activated Carbon. *Ind Eng Chem Res*. 2013;52:4688.
71. Gordon M, Suppes G. Li-ion battery performance in a convection cell configuration. *AIChE J*. 2013;59:1774-9.
72. Gordon M, Suppes G. Convection battery-modeling, insight, and review. *AIChE J*. 2013;59:2833-42.
73. Fan H, Tekeei A, Suppes GJ, Hsieh F-H. Rigid polyurethane foams made from high viscosity soy-polyols. *J Appl Polym Sci*. 2013;127:1623-9.
74. Dornbusch DA, Hilton R, Gordon MJ, Suppes GJ. Effects of sonication on EIS results for zinc alkaline batteries. *ECS Electrochem Lett*. 2013;2:A89-A92.
75. Dornbusch DA, Hilton R, Gordon MJ, Suppes GJ. Effects of carbon surface area on performance of lithium sulfur battery cathodes. *J Ind Eng Chem (Amsterdam, Neth)*. 2013;19:1968-72.
76. Dornbusch DA, Hilton R, Gordon MJ, Suppes GJ. Effects of sonication on EIS results for zinc alkaline batteries. *ECS Electrochem Lett*. 2013;2:A89-A92.
77. G.J. Suppes, F. Hsieh, A. Tekeei, R. Ghoreishi, Y. Zhao, L. Shen. Simulation of Urethane Reaction for Both Analytical Methods and Formulation Development, CPI Conference, American Chemistry Council; Phoenix, September 23 – 25, 2013.
78. R. Ghoreishi, Y. Zhao, G.J. Suppes. Reaction Modeling of Urethane Polyols Using Fraction Primary Secondary, and Tertiary Hydroxyl Content, CPI Conference, American Chemistry Council; Phoenix, September 23 – 25, 2013.
79. Y. Zhao, R. Ghoreishi, G.J. Suppes. Modeling Impact of Catalyst Loading on Polyurethane Foam Polymerization, CPI Conference, American Chemistry Council; Phoenix, September 23 – 25, 2013.
80. Suppes GJ, Hsieh F-H, Tekeei A, Fan H. Soy-based rigid foams with reduced urethane loadings. American Chemistry Council; 2012. p. 545-50.
81. Suppes GJ. Method of producing lower alcohols from glycerol using metal catalysts. University of Missouri, USA . 2012. p. 50pp., Cont.-in-part of U.S. Ser. No. 278,634.

82. Romanos J, Beckner M, Rash T, Firlej L, Kuchta B, Yu P, et al. Nanospace engineering of KOH activated carbon. *Nanotechnology*. 2012;23:015401/1-/7.
83. Hilton R, Bick P, Tekeei A, Leimkuehler E, Pfeifer P, Suppes GJ. Mass Balance and Performance Analysis of Potassium Hydroxide Activated Carbon. *Ind Eng Chem Res*. 2012;51:9129-35.
84. Fan H, Tekeei A, Suppes GJ, Hsieh F-H. Properties of biobased rigid polyurethane foams reinforced with fillers: microspheres and nanoclay. *Int J Polym Sci*. 2012;474803, 8 pp.
85. Fan H, Tekeei A, Suppes GJ, Hsieh F-H. Physical properties of soy-phosphate polyol-based rigid polyurethane foams. *Int J Polym Sci*. 2012;907049, 8 pp.
86. Suppes GJ, Sawyer BD, Gordon MJ. High-energy density flow battery validation. *AIChE J*. 2011;57:1961-7.
87. Suppes GJ, Lozada Z, Lubguban A. Soy-based polyols. University of Missouri, USA . 2011. p. 101 pp.
88. Sawyer BD, Suppes GJ, Gordon MJ, Heidlage MG. Impact of electrode separator on performance of a zinc/alkaline/manganese dioxide packed-bed electrode flow battery. *J Appl Electrochem*. 2011;41:543-50.
89. Lubguban AA, Lozada ZR, Tu Y-C, Fan H, Hsieh F-H, Suppes GJ. Isocyanate reduction by epoxide substitution of alcohols for polyurethane bioelastomer synthesis. *Int J Polym Sci*. 2011;936973.
90. Suppes GJ. Convection battery configuration for connective carbon matrix electrode. University of Missouri, USA . 2010. p. 69pp.
91. Suppes GJ. Glycerol technology options for biodiesel industry. AOCS Press; 2010. p. 439-55.
92. Yan W, Suppes GJ. Low-Pressure Packed-Bed Gas-Phase Dehydration of Glycerol to Acrolein. *Ind Eng Chem Res*. 2009;48:3279-83.
93. Tu Y-C, Suppes GJ, Hsieh F-H. Thermal and mechanical behavior of flexible polyurethane-molded plastic films and water-blown foams with epoxidized soybean oil. *J Appl Polym Sci*. 2009;111:1311-7.
94. Tu Y-C, Fan H, Suppes GJ, Hsieh F-H. Physical properties of water-blown rigid polyurethane foams containing epoxidized soybean oil in different isocyanate indices. *J Appl Polym Sci*. 2009;114:2577-83.
95. Suppes GJ. Method of producing lower alcohols from glycerol. University of Missouri, USA . 2009. p. 52 pp., Cont.-in-part of U.S. Ser. No. 510,992.
96. Suppes GJ. Method of producing lower alcohols from glycerol. University of Missouri, USA . 2009. p. 102pp.
97. Lubguban AA, Tu Y-C, Lozada ZR, Hsieh F-H, Suppes GJ. Functionalization via glycerol transesterification of polymerized soybean oil. *J Appl Polym Sci*. 2009;112:19-27.
98. Lubguban AA, Tu Y-C, Lozada ZR, Hsieh F-H, Suppes GJ. Nanocatalytic polymerization of ethylene glycol and epoxy molecules for rigid polyurethane foam applications. *J Appl Polym Sci*. 2009;112:2185-94.
99. Lozada Z, Suppes GJ, Tu Y-C, Hsieh F-H. Soy-based polyols from oxirane ring opening by alcoholysis reaction. *J Appl Polym Sci*. 2009;113:2552-60.
100. Lozada Z, Suppes GJ, Hsieh F-H, Lubguban A, Tu Y-C. Preparation of polymerized soybean oil and soy-based polyols. *J Appl Polym Sci*. 2009;112:2127-35.
101. Burress J, Kraus M, Beckner M, Cepel R, Suppes G, Wexler C, et al. Hydrogen storage in engineered carbon nanospaces. *Nanotechnology*. 2009;20:204026/1-/10.

102. Yan W, Suppes GJ. Vapor Pressures and Evaporation Studies of Sugars and Sugar Alcohols. *J Chem Eng Data*. 2008;53:2033-40.
103. Tu Y-C, Suppes GJ, Hsieh F-H. Water-blown rigid and flexible polyurethane foams containing epoxidized soybean oil triglycerides. *J Appl Polym Sci*. 2008;109:537-44.
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