John C. Prindle, Jr., Ph.D., P.E.

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EDUCATION

1993-Present	Registered professional engineer in the state of Louisiana (#25323).
1983-1989	UNIVERSITY OF WISCONSIN-MADISON Ph.D. in Chemical Engineering
1978-1983	TEXAS TECH UNIVERSITY Lubbock, TX B.S. Mathematics *summa cum laude* (June 1983) B.S. Chemical Eng. *summa cum laude* (Dec. 1982)

PROFESSIONAL EXPERIENCE

MANAGING MEMBER, Torchwood Enterprises, LLC, Engineering and Scientific Consulting, Baton Rouge, Louisiana, 2014-Present.

PROFESSOR OF PRACTICE, Department of Chemical Engineering, University of Louisiana at Lafayette, Lafayette, Louisiana, 2013-Present.

ASSOCIATE, E3Tec, LLC, Barrington, Illinois, 2012-2018.

PROFESSOR OF PRACTICE, Department of Chemical and Biomolecular Engineering, Tulane University, New Orleans, Louisiana, 2004-2013.

SPECIAL TERM APPOINTEE, Argonne National Laboratory – Energy Systems Division, Argonne, Illinois, 2010-2012.

SPECIAL TERM APPOINTEE, Argonne National Laboratory, Argonne, Illinois, 2007.

SENIOR PROCESS DEVELOPMENT ADVISOR, Albemarle Corporation – R&D Department, Baton Rouge, Louisiana, 2001-2004.

PROCESS DEVELOPMENT ADVISOR, Albemarle Corporation – R&D Department, Baton Rouge, Louisiana, 1994-2001.

SENIOR PROCESS DESIGN SPECIALIST, Albemarle Corporation – Engineering Department, Baton Rouge, Louisiana, 1992-1994.

R&D SPECIALIST, Ethyl Corporation – R&D Department, Baton Rouge, Louisiana, 1989-1992.

RECENT WORKSHOPS CONDUCTED

2011 *Introduction to Process Modeling with ASPEN Plus and HYSYS* Attendees: Practicing Chemical Engineers from the Baton Rouge and New Orleans areas.

2010 *Preparation for the Chemical Engineering PE Exam* Attendees: Practicing Chemical Engineers from the Baton Rouge and New Orleans areas.

2009 *Preparation for the Chemical Engineering PE Exam* Attendees: Practicing Chemical Engineers from the Baton Rouge and New Orleans areas.

HONORS AND AWARDS

2019 Teacher of the Year – College of Engineering, University of Louisiana at Lafayette

2015 Teacher of the Year – College of Engineering, University of Louisiana at Lafayette

2013 Tulane University's Omega Chi Epsilon Outstanding Teaching Award

2012 Tulane University's Omega Chi Epsilon Outstanding Teaching Award

2011 Appreciation Award for Distinguished Service as Treasurer of New Orleans AIChE Section 2005-2010.

2011 Tulane University's Omega Chi Epsilon Outstanding Teaching Award

2010 Tulane University's Omega Chi Epsilon Outstanding Teaching Award

2009 Tulane University's Omega Chi Epsilon Outstanding Teaching Award

2008 Engineering Faculty Professionalism Award, awarded by the Louisiana Engineering Foundation.

2008 Tulane University's Omega Chi Epsilon Outstanding Teaching Award

2007 Tulane University's Omega Chi Epsilon Outstanding Teaching Award

2006 Tulane University's Omega Chi Epsilon Outstanding Teaching Award

2005 Tulane University's Omega Chi Epsilon Outstanding Teaching Award

2003 Albemarle Outstanding Technical Achievement Award – For saving the corporation approximately $3MM through application of reduced-scale process development.

2002 Albemarle Outstanding Technical Achievement Award –For cultivating new process development techniques which reduced the time and cost of new product development and process improvement.

2002 AIChE Spring Meeting Session Chair –[140] – Process Simulators in Sophisticated Process Modelling

1998 Best Tips & Hints Paper Award – October 1998, Mettler RC1 User Forum, Marco Island, FL.

1998 Albemarle Champion Grant Award – $30,000
Research Funding for the Development of Melt Crystallization Technology

1998 Albemarle Performance Excellence Award – For performing process research which translated into corporate profit of $0.5MM/yr.

1993 Albemarle Champion Grant Award – $20,000
Research Funding for the Identification of New Non-Halogenated Flame Retardants

PATENTS AND PATENT APPLICATIONS

C.B. Panchal and J.C. Prindle, *Method of Producing High-Concentration Alkyl Carbonates Using Carbon Dioxide as Feedstock*, U.S. Pat. 9,796,656 B1 (2017).

C.B. Panchal and J.C. Prindle, *Method of Producing High-Concentration Alkyl Carbonates Using Carbon Dioxide as Feedstock*, U.S. Pat. 9,518,003 B1 (2016).

C.B. Panchal, J.C. Prindle, A. Kolah, D. Miller, C. Lira, *Integrated Process of Distillation with Side Reactors for Synthesis of Organic Acid Esters*, U.S. Pat. 9,174,920 B1 (2015).

J.C. Prindle and D.J. Manuel, *Cracking of Dicyclopentadiene*, U.S. Pat. Appl. 2008/0097132 A1 (2008).

W.B. Harrod, T.J. Hall, C.S. Knight, J.C. Prindle and D.M. Armstrong, *Concurrent Sulfur Dioxide Oxidation Process and its Use in Manufacture of Tetrabromophthalic Anhydride*, U.S. Pat. Appl. 2007/0260072 A1 (2007).

J.C. Prindle, M.W. Easson, J.D. Palmer, J.G. Jones, M.K. Mortensen, and J.E. Boone, *Separation of 2,4-Toluene diamine from an Isomeric Mixture of Toluenediamines*, German Pat. 60,105,776 T2 (2006).

J.C. Prindle and D.J. Manuel, Cracking of Dicyclopentadiene, PCT Int. Appl. WO 2006/011873 A1 (2006).

W.R. Brown, J.C. Prindle, and G.H. Lambeth, *Aromatic Amine Catalyst and Use Thereof*, German Pat. 60,106,730 T2 (2006).

J.E. Boone and J.C. Prindle, *Process to Make Metal Complexes with Volatile Liquid Metal Compounds*, PCT Int. Appl. WO 2005/108372 A1 (2005).

W.B. Harrod, T.J. Hall, C.S. Knight, J.C. Prindle and D.M. Armstrong, *Concurrent Sulfur Dioxide Oxidation Process and its Use in Manufacture of Tetrabromophthalic Anhydride*, PCT Int. Appl WO 2005/113430 A1 (2005).

B. Kneale, J.E. Boone, S.P. Diefenbach, C.P. Loechelt, and J.C. Prindle, *Process of Producing Self-Supported Catalysts*, U.S. Pat. 6,677,265 B1 (2004).

J.C. Prindle, M.W. Easson, J.D. Palmer, J.G. Jones, M.K. Mortensen, and J.E. Boone, *Separation of 2,4-Toluenediamine from an Isomeric Mixture of Toluenediamines*, EP 1,265,847 B1 (2004).

W.R. Brown, J.C. Prindle, and G.H. Lambeth, *Aromatic Amine Curatives and Their Use*, EP 1,265,940 B1 (2004).

W.R. Brown, J.C. Prindle, and G.H. Lambeth, *Aromatic Amine Curatives and Their Use*, U.S. Pat. 6,509,434 B1 (2003).

J.C. Prindle, M.W. Easson, J.D. Palmer, J.G. Jones, M.K. Mortensen, and J.E. Boone, *Separation of 2,4-Toluenediamine from an Isomeric Mixture of Toluenediamines*, U.S. Pat. 6,469,212 B1 (2002).

W.R. Brown, J.C. Prindle, and G.H. Lambeth, *Aromatic Amine Curatives and Their Use*, PCT Int. Appl. WO 01/70841 A2 (2001).

J.C. Prindle, M.W. Easson, J.D. Palmer, J.G. Jones, M.K. Mortensen, and J.E. Boone, *Separation of 2,4-Toluenediamine from an Isomeric Mixture of Toluenediamines*, PCT Int. Appl. WO 01/70666 A1 (2001).

B. Kneale, J.E. Boone, S.P. Diefenbach, C.P. Loechelt, and J.C. Prindle, *Polymerization Process Using Self-Supported Catalysts*, PCT Int. Appl. WO 01/98381 A2 (2001).

B. Kneale, J.E. Boone, S.P. Diefenbach, C.P. Loechelt, and J.C. Prindle, *Process of Producing Self-Supported Catalysts*, PCT Int. Appl. WO 01/98374 A2 (2001).

K.F. Lin, J.E. Boone, M.D. Matthews, J.C. Prindle, and S.D. McGee, *Method for Producing Alkyl Mercaptans and/or Dialkyl Monosulfides*, U.S. Pat. 6,198,003 B1 (2001).

J.C. Prindle, C.J. Nalepa, and G. Kumar, *Flame Retardant Compositions for Use in Styrenic Polymers*, EP 1,007,592 A1 (1999).

J.C. Prindle, C.J. Nalepa, and G. Kumar, *Flame Retardant Compositions for Use in Styrenic Polymers*, PCT Int. Appl. WO 99/10429 A1 (1999).

J.C. Prindle, C.J. Nalepa, and G. Kumar, *Flame Retardant Styrenic Polymers*, U.S. Pat. 5,811,470 (1998).

J.C. Prindle, C.J. Nalepa, and G. Kumar, *Flame Retardant Styrenic Polymer Compositions*, EP 806,451 A1 (1998).

J.C. Prindle, C.J. Nalepa, and G. Kumar, *Flame Retardant Composition for Use in Styrenic Polymer*, JPH 1,045,980 A (1997).

PUBLICATIONS AND PRESENTATIONS

C.B. Panchal, R. Sturtz, R. Doctor and J.C. Prindle, *Separation of DMC/Methanol Azeotrope by Heat Integrated Distillation Equipped with Pervap Membrane*, Proceedings of AIChE Spring Meeting, New Orleans, LA, April 2019.

C.B. Panchal, R. Sturtz, J.C. Prindle and R. Doctor, *Carbon-Footprint Analysis for Conversion of CO_2 to Alkyl Carbonates*, Proceedings of AIChE Spring Meeting, New Orleans, LA, April 2019.

C.B. Panchal, J.C. Prindle, R. Sturtz and R. Doctor, *Conversion of Capture CO_2 to Alkyl Carbonate using Ethylene Oxide as Feedstock*, Poster Presentation at 2017 NETL CO_2 Capture Technology Meeting, Pittsburg, PA, May 2017.

C.B. Panchal, J.C. Prindle, R. Sturtz and R. Doctor, *Integrated Process of CO_2 Capture and Conversion to Alkyl Carbonates*, Presentation at the AIChE Midwest Regional Conference, Chicago, IL, March 2017.

C.B. Panchal, J.C. Prindle, R. Doctor, A. Madgavkar, A. Kolah and D. Miller, *Process Development for Synthesis of Bio-Based Plasticizers*, Proceedings of AIChE Spring Meeting, Houston, TX, April 2016.

C.B. Panchal, J.C. Prindle, R. Doctor, A. Madgavkar, *Techno-Economic Merit Analysis of Conversion of Captured CO_2 to Value-Added Products*, Presentation at the AIChE/Carbon Management Technology Conference, Sugar Land, TX November 2015.

C.B. Panchal, J.C. Prindle and R. Doctor, *Conversion of Captured CO_2 to Alky Carbonates*, Poster Presentation at 2015 NETL CO_2 Capture Technology Meeting, Pittsburg, PA, June 2015.

C.B. Panchal, R. Doctor and J.C. Prindle, *Dynamic Kinetic Test Unit for Determination of Kinetic Parameters under Prototype Condition*, Proceedings of the AIChE Spring Meeting, New Orleans, 2014.

J.C. Prindle, R. Doctor and C.B. Panchal, *Rapid Process Scale-up Through Innovative Methodologies*, Proceedings of the AIChE Spring Meeting, New Orleans, 2014.

A. Kolah, D. Miller, R. Doctor, J.C. Prindle and C.B. Panchal, *Heat Integrated Reactive Distillation using External Side Reactors for Synthesis of Tri-Ethyl Citrate*, Proceedings of the AIChE Spring Meeting, New Orleans, 2014.

A. Kolah, D. Miller, J.C. Prindle and C.B. Panchal, *A Reactive Distillation for Separation of Propylene-Propane Mixtures*, Proceedings of the AIChE Spring Meeting, New Orleans, 2014.

R. Doctor, C.B. Panchal, J.C. Prindle, A. Kolah and D. Miller, *Conversion of Captured Carbon Dioxide to Value-Added Dimethyl Carbonate*, Proceedings of the AIChE Spring Meeting, New Orleans, 2014.

A. Kolah, C.T. Lira, D. Miller, J.C. Prindle and C.B. Panchal, *Reactive Distillation Using External Side Reactors for Synthesis of Bio-Renewable Organic Acid Esters*, Proceedings of the AIChE Spring Meeting, San Antonio, TX, May 2013.

A. Kolah, C.T. Lira, D. Miller, J.C. Prindle and C.B. Panchal, *Reactive Distillation Using External Side Reactors for Synthesis of Tri-Ethyl Citrate*, Presentation at the 9th European Congress of Chemical Engineering, The Hague, Netherland, April 2013.

J.C. Prindle, C.B. Panchal, R.D. Doctor, E.A. Dada, A.K. Kolah, C.T. Lira, D. Miller, *Heat-Integrated Reactive Distillation of Mesityl Oxide Process*, Proceedings of the AIChE Spring Meeting, Houston, TX, 2012.

A.K. Kolah, V.K.S. Pappu, C.T. Lira, D.J. Miller, E.A. Dada, C.B. Panchal, R.D. Doctor, J.C. Prindle, *Heat Integrated Reactive Distillation for the Indirect Hydration of Cyclohexene to Cyclohexanol*, Proceedings of the AIChE Fall Meeting, Minneapolis, MN, 2011.

J. C. Prindle, C.B. Panchal, R.D. Doctor, *Aspen Plus as a Tool for Process Scale-up of Externally Heat Integrated Reactive Distillation*, Proceedings of the AIChE Spring Meeting, Chicago, IL 2011.

R. Subramaniam, J.C. Prindle, V.J. Law, *Electricity Generation from Low Temperature Waste Heat with Application to Hydrogen Production from Water*, J. Energy and Power Engineering (2010), 4(1), pp.1-10.

R.B.Gonzales, V.J. Law, J.C. Prindle, *Analysis of the Hybrid Copper Oxide-Copper Sulfate Cycle for the Thermochemical Splitting of Water for Hydrogen Production*, Int. J. Hydrogen Energy (2009), 34(9), pp.4179-88.

J.C. Prindle, *Teaching Process Safety in a Laboratory Setting*, Proceedings of the AIChE Fall Meeting, Philadelphia, PA, 2008.

A.I. Lupulescu, J.C. Prindle, V.J. Law, *ASPEN Plus Modeling of the Three-Reaction Version of the Copper-Chloride Thermochemical Cycle for Hydrogen Production from Water*, Proceedings of the AIChE Fall Meeting, Philadelphia, PA, 2008.

Y. Song, E. Doomes, J. Prindle, R. Tittsworth, J. Hormes, and C. Kumar, *Investigations into Sulfobetaine-Stabilized Cu Nanoparticle Formation: Toward Development of a Micro fluidic Synthesis*, J. Phys. Chem. B (2005), 109(19), pp. 9330-8.

J. C. Prindle, *Industrial Applications of Chemical Engineering Fundamentals*, Department of Chemical Engineering Seminar Series, Rose-Hulman Institute of Technology, Terre Haute, IN, January 2000.

J. C. Prindle, *Applying the RC1/MP10 to Study Pressure Reactions Involving Pyrophoric Materials*, Mettler RC1 User Forum, Marco Island, FL, October 1998.

J.C. Prindle, *Process Simulation: Art or Science?*, Baton Rouge Section of AICHE, Baton Rouge, LA, January 1997.

J.C. Prindle, *Computer Modeling of the Silicon Melt Process in a Czochralski Puller*, Department of Chemical Engineering Seminar Series, Louisiana State University, Baton Rouge, LA, November 1991.

J.C. Prindle, *Computer Modeling of the Silicon Melt Process in a Czochralski Puller*, Proceedings of the Fall Meeting of the Japanese Society of Applied Physics, Okayama, Japan, 1991.

Memberships

American Institute of Chemical Engineers (AIChE)

Areas of Expertise and Consultation

Chemical Process Design & Scale-up
Chemical Process Control
Thermodynamics
Renewable Energy Processes
Chemical Process Simulation
Chemical Reaction Engineering
Reactive Chemicals and Their Hazards
Chemical Process Development