

# Donald P. Visco, Jr.

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## Education

Ph.D., Chemical Engineering (University at Buffalo, SUNY) May 1999  
B.S., Chemical Engineering, *cum laude* (University at Buffalo, SUNY) May 1992

## Professional Experience

### University of Akron (Akron, OH)

*Professor of Chemical and Biomolecular Engineering* Jan 2011—Pre  
*Dean, College of Engineering* July 2017 – Aug 2018  
*Interim Dean, College of Engineering* July 2017 – Aug 2018  
*Assoc. Dean of Undergrad. Studies, College of Engineering* Jan 2011 – July 2016

### Tennessee Technological University (Cookeville, TN)

*Interim Associate Dean, College of Engineering* May 2010 – Dec 2010  
*Professor of Chemical Engineering* June 2008 – Dec 2010  
*Associate Professor of Chemical Engineering* June 2004 – June 2008  
*Assistant Professor of Chemical Engineering* Aug 1999 – June 2004  
  
*Graduate Program Coordinator* Mar 2008 – May 2010  
*Distinguished Faculty Fellow* Sep 2007 – Sep 2008  
*Undergraduate Program Coordinator* Jan 2003 – Mar 2008

### University of Tennessee – Space Institute (Tullahoma, TN)

*Adjunct Associate Professor of Chemical Engineering* July 2004 – Dec 2010

### Sandia National Laboratories

*University Summer Faculty Program (New Initiatives – Livermore, CA)* Summer 2001  
*University Summer Faculty Program (Computational Bio – Albuquerque, NM)* Summer 2000

### AlliedSignal, Inc. (Buffalo, NY)

*Research Engineer – Fluorine Products* May 1996 – Dec 1996

### US Navy (Newport RI, Orlando FL, Ballston Spa NY)

*Officer Student, Nuclear Propulsion Program* June 1992 – June 1994

### Union Carbide Corporation (Seadrift, TX)

*Engineering Intern* June 1991 – Aug 1991

## Honors and Awards (12 out of 34 total)

- Service to Chemical Engineering Education, AIChE, 2017
- Fellow, ASEE, 2015
- Stephen Brunauer Award, ACerS Cements Division, 2015
- Neva Gibbons Lectureship in Chemical Engineering Education, South Carolina, 2014
- National Outstanding Teaching Award, ASEE, 2009
- ASEE Zone 2 Outstanding Campus Representative 2007
- Ray E. Fahien Award, ASEE (National Chemical Engineering Division), 2006
- Brown-Henderson Outstanding Engineering Faculty Award (Tenn. Tech), 2006
- ASEE-SE New Faculty Research Award (1st Place), 2005
- Presidential Early Career Scientist and Engineer Award (PECASE) – DOE, 2004
- Letter of Commendation, United States Navy, 1993
- Western NY Student of the Year, AIChE, 1991

### **Refereed Journal Publications** (6 out of 59 total)

- A. Mohamed, **D. P. Visco, Jr.** and D. M. Bastidas, "Effect of cations on the activity coefficient of NO<sub>2</sub><sup>-</sup>/NO<sub>3</sub><sup>-</sup> corrosion inhibitors in simulated concrete pore solution: An electrochemical thermodynamics study", *Corrosion Science*, **206**, 110476 (2022).
- H. Li, **D. P. Visco, Jr.** and N. Leipzig, "Confirmation of Predicted Activity for Factor XIa Inhibitors from a Virtual High-Throughput-Screening Approach", *AIChE J.*, **60**, 2741 - 2746 (2014).
- D. Weis and **D. P. Visco, Jr.** "Computer-Aided Molecular Design Using the Signature Molecular Descriptor: Application to Solvent Selection", *Comput. & Chem. Eng.*, **34**, 1018 – 1029 (2010)
- P. Kannan, J. Biernacki and **D. P. Visco, Jr.** "Fast Pyrolysis Kinetics of Expanded Polystyrene Foam", *AIChE J.*, **56**, 1569 - 1577 (2009).
- S. Swaminathan and **D. P. Visco, Jr.**, "Thermodynamic Modeling of Refrigerants Using the Statistical Associating Fluid Theory with Variable Range (SAFT-VR). II: Mixtures", *Ind. Eng. Chem. Res.* **44**, 4806 (2005)
- **D. P. Visco, Jr.**, D. A. Kofke, and R. R. Singh, "Thermal Properties of Hydrogen Fluoride from EOS + Association Model", *AIChE J.*, **43**, 2381 (1997).

### **Book Chapters** (1 out of 4 total)

- **D. P. Visco, Jr.** and J. J. Chen, "Ch. 11. The Signature Molecular Descriptor in Molecular Design: Past and Current Applications", *Tools for Chemical Product Design*, Elsevier (2016).

### **Books**

- K. Dahm and **D. P. Visco, Jr.**, *Fundamentals of Chemical Engineering Thermodynamics*, Cengage, 2014.

### **Books/Journals Edited**

- D. P. Visco, Jr. and P. Wankat, *Startup: A Collection of Important CEE Papers on Teaching for New Faculty*, *Chemical Engineering Education*, 2014. (Virtual Issue)

### **Patents** (1 out of 2 total)

- J. Biernacki, H. Kayello and **D. P. Visco**, *Shrinkage Reducing Admixtures for Portland Cement Concrete*, US Patent Filed 62/040,716 (August 2014)

### **Book Reviews** (1 out of 2 total)

- D. P. Visco, Jr., *Teaching Engineering, 2<sup>nd</sup> Edition* (Wankat and Oreovicz), in *Chemical Engineering Education*, **50**, 97 (2016)

### **Proceedings** (2 out of 27 total)

- **D. P. Visco, Jr.**, N. Makki, J. Phillips, E. Stevic, E. Bonnema, D. Dunn, L. Carey and X. Liang, "Implementation of a Virtual Job Shadowing Experience for STEM Students Participating in a Corporate-STEM Connection Program.", ASEE Annual Meeting and Exposition Proceedings, 2022.
- B. Baburao, S. Swaminathan and **D. P. Visco, Jr.**, "Graduate Students as Co-Instructor for an Undergraduate Course: Implementation and Assessment", ASEE Annual Meeting and Exposition Proceedings, 2006.

### **Invited Presentations** (1 out of 17 total)

- "Training Engineering Faculty to be Effective Educators: History and Perspective", *Neva Gibbons Lecture – University of South Carolina*, October 2014.

### **Workshops Facilitated** (1 out of 22 total)

- "Effective Teaching for New or Prospective Faculty", *AIChE Annual Meeting*, Phoenix, AZ; November 2022. (with D. Silverstein and L. Bullard).

### **Other Presentations** (2 out of 116 total)

- "Effect of Cationic Species on the Activity and Inhibition Performance of NO<sub>2</sub>/NO<sub>3</sub> Corrosion Inhibitors", *AIChE Annual Meeting*, Phoenix, AZ; November 2022 (with A. Mohamed and D. Bastidas).
- "Modeling and Experimentation of Polyol +Blowing Agent Systems", *AIChE Annual Meeting*, Salt Lake City, UT; November 2007 (with S. Yellissety).

**Professional Activities and Service** (*leadership positions listed only*)

- **American Institute of Chemical Engineers**
  - Education and Accreditation Committee, Commissioner to EAC (2020 – present)
  - Education Division, Vice-Chair (2010-12), Chair (2012-14), Future Faculty Chair (2016-18)
  - Group 4 (Education), Area 4a Chair (2008), Vice-Chair (2009 – 10)
- **American Society for Engineering Education**
  - Faculty Teaching Excellence Task Force, Chair (2020 – Present)
  - Chemical Engineering Division, Chair (2008), Summer School Organizing Committee (2012 – 2017)
  - University of Akron, Campus Representative (2011 – Present)
  - New Engineering Educators Division, Program Chair (2004), Chair (2005)
  - Southeastern Section, Technical Program Chair, Sectional Annual Meeting (2007)
  - Southeastern Section, Founding Chair, Chemical Engineering Division (2003)
  - Tennessee Technological University, Campus Representative (2000 – 2010)
- **Chemical Engineering Education (Journal)**
  - Asst. Editor (2016 – 18), Assoc. Editor, (2018 – 19), Editor (2019 – Present)
- **Sigma Xi**
  - TTU Chapter, President (2005 - 06)

**Grants Awarded (PI and co-PI)** (*5 out of 21 total, for \$8M*)

- National Science Foundation, “Developing a National Framework for Recognition of Engineering and Engineering Technology Faculty Instructional Excellence” \$149,192 (6/21 – 5/23). **PI**
- National Science Foundation, “*Zippping Towards STEM: Integrating Engineering Design into the Middle School Physical Science Curriculum*”, \$742,356 (9/15 – 9/19). **PI**
- National Science Foundation, “*I-Corps: Shrinkage Reducing Admixture Business Development*”, \$50,000 (1/14 – 6/15). **PI**
- Ohio Board of Regents, “*Replicating a Proven Model to Provide Experiential Opportunities for Student Success*”, \$2,600,000 (\$932,000 State; \$1,668,000 Industry) (1/13 – 6/14). **PI**
- American Chemical Society – Petroleum Research Fund, “*Evaluating the Thermodynamics Effects of Self and Cross-Clustering on Strongly Associating Systems*”, \$80,000 (01/05 – 08/07). **PI**

**Research Students Supervised** (primary)

- Graduate (3 out of 20 total students/project – 15 M.S. and 5 Ph. D.)
  - J. Chen, “*Exploring Virtual HTS Environments Using Signature Molecular Descriptors*” (**Ph. D. – May 2018**)
  - S. Magadi, “*Use of an Integrate Method to Trace Coexistence Curves*” (**M.S. – August 2013**)
  - D. Weis, “*Optimizing Inverse Design Techniques Using Signature*” (**Ph.D. – May 2010**)
- Undergraduate (2 out of 28 total students/project)
  - N. Strinka, “*Experimental Evaluation of Corrosion Inhibitors in SCPS*”, (2021)
  - C. Payne-Smith, “*Evaluating the Thermodynamic Consistency of an Aqueous-HF system*” (**Spring 2002**)

**Courses Taught** (*4 out of 23 unique courses total*)

- 4200:225 *Equilibrium Thermodynamics*; Spring 2013 – 16, 19, 20 (Akron)
- 4200:630 *Chemical Engineering Analysis*; Fall 2019 – 22 (Akron)
- CHE 1010 *Introduction to Chemical Engineering*; Fall 2005 – 2008 (Tenn. Tech)
- CHE 2210 *Intro. to Process Measurements (Lab)*; Spring 2000,2002,2005,2006 (Tenn. Tech)