

Donald P. Visco, Jr

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Education

- Ph.D. State University of New York at Buffalo (1999)
- B.S. State University of New York at Buffalo (1992)

Professional Experience

- University of Akron *Professor of Chemical Engineering (2011 – present)*
- University of Akron *Dean, College of Engineering (2016 – 2018)*
- University of Akron *Associate Dean of Undergraduate Studies (2011 – 2016)*
- Tennessee Technological University *Associate Dean of Engineering (2010 – 2010)*
- Tennessee Technological University *(Asst, Assoc, Full) Prof. of Chemical Engr. (1999 – 2010)*
- Tennessee Technological University *Graduate Program Coordinator (2008 – 2010)*
- Tennessee Technological University *Undergraduate Program Coordinator (2003 – 2008)*
- Sandia National Laboratories *University Summer Faculty Program (2001, 2002)*

Honors and Awards (8 of 34 total)

- Service to Chemical Engineering Education, AIChE (2017)
- Fellow, ASEE (2015)
- ASEE Martin Award, ChE Division (2011)
- ASEE PIC V, Outstanding Paper Award (2010)
- ASEE National Outstanding Teaching Award (2009)
- Distinguished Faculty Fellow, Tennessee Tech (2007)
- Ray E. Fahien Award, ASEE, ChE Division (2006)
- Dept. of Energy PECASE (2004)

Refereed Journal Publications (15 of 54 total)

- K. Koskey, N. Makki, W. Ahmed, H. Garafolo, D. Visco and B. Kruggel, "A Validity Study Applying the Rasch Model to the American Association for the Advancement of Science Force and Motion Sub-Topic Assessment for Middle School Students", *J. Applied Measurements*, In review (2018).
- Chen, J. J. F. Schmucker, L. N., and Visco, D. P. "Identifying New Clotting Factor XIa Inhibitors in Virtual High-Throughput Screening Using PCA-GA-SVM Models and Signature", *Biotechnology Progress*, In press (2018).
- J. Chen and D. Visco, Jr. "Developing an *in silico* pipeline for faster drug candidate discovery: Virtual high throughput screening with the Signature molecular descriptor using support vector machine models", *Chem Eng Sci*, **159**, 31 – 42 (2017).
- H. Kayello, N. Tadisina, N. Shlonimskaya, J. Biernacki and D. P. Visco, Jr. "An Application of Computer-Aided Molecular Design (CAMD) Using the Signature Molecular Descriptor – Part 1: Identification of Surface Tension Reducing Agents and the Search for Shrinkage Reducing Admixtures", *Journal of the American Ceramic Society*, **97**, 365 – 377 (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).
- J. Keith, D. Silverstein and D. P. Visco, Jr. "Ideas to Consider for Chemical Engineering Educators Teaching a New "Old" Course: Foundation Courses", *Chem. Eng. Ed.*, **43**, 207 – 215 (2009).
- S. Yelisetty and D. P. Visco, Jr., "Solubility of HFC32, HFC125, HFC152a, and HFC143a in Three Polyols", *J. Chem. Eng. Data*, **54**, 781 – 785 (2009).
- A. Lucia, L. Octavio and D. P. Visco, Jr. "Modeling Association in the SAFT Formalism", *Comput. & Chem. Eng.*, **33**, 531 – 533 (2009).
- J. Jackson, D. Weis and D. P. Visco, Jr., "Potential Glucocorticoid Receptor Ligands with Pulmonary Selectivity using I-QSAR with the Signature Molecular Descriptor", *Chem. Bio. & Drug Design*, **72**, 540 – 550 (2008)
- D. Weis, D. P. Visco, Jr. and J. L. Faulon, "Data Mining PubChem Using a Support Vector Machine with the Signature Molecular Descriptor: Classification of Factor X1a Inhibitors", *J. Molec. Graph. & Model*, **27**, 466 – 475 (2008).
- S. Swaminathan, D. P. Visco, Jr. and S. Sen, "Detection of Shallow Inclusions in Closed-Packed Granular Beds using Mechanical Impulses", *Applied Phys. Lett.*, **90**, 154107/1 – 154107/3 (2007)
- S. Dube and D. P. Visco, Jr., "A Survey of the Graduate Thermodynamics Course in Chemical Engineering Departments across the United States", *Chem. Eng. Ed.* **39**, 258 – 263 (2005).
- C. Payne-Smith and D. P. Visco, Jr. "Evaluating the Thermodynamic Consistency of Experimental Data for HF+H₂O at 101.325 kPa", *J. Chem. Eng. Data*, **49**, 306 – 310 (2004).
- D.P. Visco, Jr., R. S. Pophale, M. D. Rintoul and J. L. Faulon, "Developing a Methodology for an Inverse Quantitative Structure-Activity Relationship Using the Signature Molecular Descriptor", *J Molecular Graphics and Modelling*, **20**, 429 - 438 (2002).
- D. P. Visco, Jr. and S. Sen, "Relaxation of Classical Particles in Two-Dimensional Anharmonic Single Well Potentials", *Phys. Rev. E*, **63**:021114 (2001).

Books (1 of 1 total)

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

Book Chapters (3 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).
- D. P. Visco, Jr., "Chapter 9: Computer-Aided Molecular Design Algorithms", Handbook of Cheminformatic Algorithms, CRC Press, (2010).
- J. L. Faulon, D. P. Visco, Jr. and D. Roe, "Enumerating Molecules", Reviews in Computational Chemistry, Vol. 21, John Wiley and Sons, (2005).

Refereed Conference Proceedings (4 of 22 total)

- E. Wain-Weiss, N. Makki and D. Visco, "A Doctoral Teaching Program in Engineering at The University of Akron", ASEE Annual Meeting and Exposition Proceedings, 2018.
- J. J. Biernacki, D. P. Visco, Jr., and H. M. Kayello, "Computer aided molecular design – A course-grain tool for accelerating discovery of molecular interactions with cement," Proceedings of the International US-Poland Workshop on Multiscale Computational Modeling of Cementitious Materials, ,Krakow, Poland., Krakow University of Technology, 2012
- D. P. Visco, Jr., D. Schaefer, T. Utschig, J. P. Mohsen , N. Fortenberry, M. Prince and C. Finelli, "Preparing for Participation in SPEED: An ASEE Initiative for a Nationally Recognized Development Program For Engineering Educators", ASEE Annual Meeting and Exposition Proceedings, 2010
- P. Arce and D.P. Visco, Jr., "A Freshman Course in Chemical Engineering: Merging First-Year Experiences with Discipline-Specific Needs", ASEE Annual Meeting and Exposition Proceedings, 2006.

Patent Applications (2 of 2)

- J. Biernacki, H. Kayello and D. P. Visco, Shrinkage Reducing Admixtures for Portland Cement Concrete, US Patent Filed 62/040,716 (August 2014)
- J. Biernacki, H. Kayello and D. P. Visco, Shrinkage Reducing Admixture for Concrete, US Patent Filed 61/868,918 (August 2013)

Presentations (134 total; 23 invited)

Workshops Facilitated (15 total; 12 off-campus)

Professional Activities

- *American Institute of Chemical Engineers*
 - Education Division
 - Future Faculty Mentor Committee Chair (2016-2017)
 - Past Division Chair (2014 – 2016)
 - Division Chair (2012 – 2014)
 - Programming Chair (2010 – 2012)
 - Programming Vice-Chair (2009 – 2010)
 - Area Chair, Ugrad (2008)
 - Programming Vice-Chair, Ugrad (2005 – 2007)

- *American Society for Engineering Education*
 - ChE Division Summer School Organizing Committee (2012 – 2017)
 - National Engineering Economy Award Committee (2010 – 2011)
 - Member, SPEED Working Group, (2009 – Present)
 - Chair, *Chemical Engineering Division* (2008)
 - Co-Chair, Awards Committee, *Chemical Engineering Division* (2006)
 - Chair, *New Engineering Educators Division* (2005)
 - Program Chair, *New Engineering Educators Division* (2004)
 - Chair, *Programs Unit – SE Section* (2008)
 - Technical Program Chair, SE Section Annual Meeting (2007)
 - Chair, *Publications and Promotions Unit – SE Section* (2006)
 - Chair, *Chemical Engineering Division – SE Section* (2003,2004)
 - TTU Campus Representative (2000 – 2010)

Conference Session Organizer (28 sessions)

Paper Reviewer/Funding Agency Reviewer

Computers and Chemical Engineering, Industrial and Engineering Chemistry Research, Fluid Phase Equilibria, Thermochemica Acta, Journal of Chemical and Engineering Data, Journal of Thermodynamics, Chemical Engineering Education, ASEE Annual Conference, American Chemical Society, National Science Foundation, US-Israel Bi-National Science Foundation

Editorial Positions

- Associate Editor, *Chemical Engineering Education* (2018 – Present)
- Assistant Editor, *Chemical Engineering Education* (2016 – 2018)

Grants Awarded (\$8.0 million as PI/co-PI)

- Funding mainly from NSF, ACS, DOE and Ohio Board of Regents

Courses Taught (20 unique courses from undergraduate freshman to Ph. D.-level)

- Courses include Equilibrium Thermodynamics, Graduate Thermodynamics, Process Optimization, Process Dynamics and Control, Process Measurements Laboratory, among others

Research Students Advised to Graduation

- 5 Ph. D.
- 14 M.S.
- 21 Undergraduate Research