AARON J. MOMENT

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PROFESSIONAL EXPERIENCE

2018 – present	Professor of Practice, Department of Chemical Engineering Columbia University, New York, NY
2018 – present	Chief Technical Advisor, GreenOre CleanTech LLC.
2005 – 2018	Associate Principal Engineer, Merck & Co., Rahway, NJ
2001 – 2005	Research Associate, Merck & Co., Rahway, NJ
2000 – 2001	Research Engineer, DuPont Pharmaceuticals, Deepwater, NJ

EDUCATION

Massachusetts Institute of Technology Ph.D. May 2000
Department of Chemical Engineering

- Advisor: Paula Hammond
- Thesis title: Synthesis and Characterization of Polystyrene Liquid Crystalline Siloxane Block Copolymers
- Minor: Applied Mathematics

Massachusetts Institute of Technology M.S. February 1996
Chemical Engineering Practice: Industrial internships with Merck & Co., West Point, PA; Dow Brands, Bay City, MI; Dow Silicones, Midland, MI

Rensselaer Polytechnic Institute B.S. 1994
Department of Chemical Engineering

- Graduation with Honors, Tau Beta Pi (GPA: 3.9/ 4.0)

EXPERTISE AND RESEARCH

- Scale up and commercialization of processes for the production of small-molecule pharmaceuticals, laboratory automation, statistical experimental design, process analytical technology, process control, crystallization process design, polymer synthesis and characterization, formulation science and engineering, particle engineering

TEACHING

- Principles of Chemical Engineering Thermodynamics, Solid State Chemistry in Pharmaceutical Development, Pharmaceutical Industry for Engineers, and Bioprocess and Biopharmaceutial Lab

AWARDS AND HONORS

- Presidential Green Chemistry Challenge Award as a member of Januvia second generation process development: "Greener Manufacturing of Sitagliptin Enabled by an Evolved Transaminase." (2010)

- Presidential Green Chemistry Challenge Award as a team member on Januvia process development: "Novel Green Synthesis for b-Amino Acids Produces the Active Ingredient in Januvia™" (2006)

PROFESSIONAL ACTIVITIES and LEADERSHIP EXPERIENCES

- Executive committee member of the Particle Technology Forum within the American Institute of Chemical Engineers 2018-present
- Reviewer of Biochemical Engineering and Process Safety Progress (2018-present)
- Recruiting Champion for MIT at Merck (2015 – 2018). Conducted campus interviews and resume reviews.

Peer Reviewed Journal Articles

- T.L., Seidl, **A. Moment**, C. Orella, T. Vickery, and D.R. Stuart, "Synthesis of 4-Methylbenzoate (2'-4'-6'-trimethoxyphenyl)iodonium Tosylate" *Organic Syntheses* (accepted)
- Zhou, G., Grosser, S., Sun, L., Graffius, G., Prasad, G., **Moment, A.**, Spartalis, A., Fernandez, P., Higgins, J., Wabulye, B., Starbuck, C., "Application of On-Line NIR for Process Control during the manufacture of Sitagliptin" *Organic Process Research & Development*, 20(3), 653-660 (2016).
- **A. Moment** and P.T. Hammond, "Block Copolymers of Polystyrene and Side-Chain Liquid Crystalline Siloxanes: Morphology and Thermal Properties," *Polymer*, 42, 6945-6959 (2001)

PATENTS

Patents Granted

- Process for making chloro-substituted nucleoside phosphoramidate compounds US Publication No. US2017/0226146 (08/10/2017)
- Process for preparing chiral dipeptidyl peptidase-IV inhibitors, US 9527855, 27 Dec 2016
- Crystalline forms of a dipeptidyl peptidase-IV inhibitors, US 9181262, 10 Nov 2015
- Synthesis and crystalline forms of NPY5 antagonist, US7700611, 20 April 2010
- Solid dosage formulation of CGRP Antagonist Salt, US 2010/00009967, 14 Jan 2010
- Process for making chloro-substituted nucleoside phosphoramidate compounds US Publication No. US2017/0226146 (08/10/2017)

INVITED TALKS and PRESENTATIONS

- Seminar, Korean Advanced Institute of Science and Technology, Daejeon, Korea (June 20th, 2018)
- Seminar, Department of Chemical Engineering, Zhejiang University, Hangzhou, China (June 15th, 2018)