## Sofia (Trakhtenberg) Aronovitz, PhD

Education

University of Massachusetts Lowell (UML) University of Massachusetts Boston (UMB) Lowell, MA Boston, MA

Postdoctoral associate. Center for Green Chemistry. (UML: 2004 - 2005; UMB: 2002 - 2004)

Massachusetts Institute of Technology (MIT)

Cambridge, MA

Postdoctoral associate. Department of Earth, Atmospheric, and Planetary Sciences. (2000–2002)

**Weizmann Institute of Science (WIS)** 

Rehovot, Israel

Postdoctoral fellow. Department of Chemical Physics. (1999 – 2000)

**Ph.D.** Department of Chemical Physics, 1999. Thesis: The effect of surface morphology on structure of adsorbed species.

**M.Sc.** Department of Chemistry, 1993. Thesis: The real time measurements of reaction between O(<sup>3</sup>P) and organized organic thin films.

**Moscow State University** 

Moscow, Russia

Undergraduate studies. Department of Chemistry. (1988 – 1991)

Teaching Experience

**Middlesex Community College** 

Bedford, MA

College Chemistry I: Lecturer and Lab Instructor (Fall 2018)

**UML** Department of Community Health and Sustainability

Lowell, MA

Interfacial Phenomena (Graduate): Lecturer (Fall 2005)

**UMB Department of Chemistry** 

Boston, MA

Physiological Chemistry: Lab Instructor (Spring 2004)

Introduction to Chemistry II (Organic Chemistry and Biochemistry): Lab Instructor (Spring 2004)

Introduction to Chemistry I (General Chemistry): Lab Instructor (Summer 2003)

Introduction to Chemistry II (Organic Chemistry and Biochemistry): Lab Instructor (Spring 2003)

Mentoring Experience

**UML Department of Community Health and Sustainability** 

Lowell, MA

ACS Project SEED: mentoring of high school students doing laboratory research in Chemistry, two students each summer (Summer 2005, Summer 2006)

Research Experience

Senior Research Fellow. Warner Babcock Institute for Green Chemistry (2016 - 2018)

Senior Scientist. Warner Babcock Institute for Green Chemistry (2007 – 2016)

Research Professor. Department of Plastics Engineering, University of Massachusetts Lowell

(2006 - 2007)

Grants and Awards

Co-PI on NSF Award of \$12,188 for "Visit to Argentina: Strategic Planning for Collaborative Research on Bioinspired Polymers" (2006)

Co-recipient of the Society of Cosmetic Chemists Award of \$2,500 as coauthor of "Water Soluble Photocrosslinking Materials in Cosmetics", chosen as Best Paper presented at the Society's Annual Seminar (2006)

Co-PI on EPA P3 grant of \$10,000 for "Photocrosslinked Immobilization of Polyelectrolytes for Template Assisted Enzymatic Polymerization of Conjugated Polymers" (2004-2005)

Selected Publications

- S. Trakhtenberg, J. C. Warner, "Green Chemistry Considerations in Entropic Control of Materials and Processes" *Chem. Rev.* 107, 2174 (2007).
- S. Trakhtenberg, Y. Hangun-Balkir, J. C. Warner, F. Bruno, J. Kumar, R. Nagarajan, L. A. Samuelson, "Photocrosslinked Immobilization of Polyelectrolytes for Enzymatic Construction of Conductive Nanocomposites", *J. Am. Chem. Soc.* 127, 9100 (2005).
- M. J. Molina, A. V. Ivanov, S. Trakhtenberg, L. T. Molina, "Atmospheric Evolution of Organic Aerosol", *Geophys. Res. Lett.* 31, L22104 (2004)
- Y. Rudich, I. Benjamin, R. Naaman, E. Thomas, S. Trakhtenberg, R. Ussyshkin, "Wetting of Hydrophobic Organic Surfaces and its Implication to Organic Aerosols in the Atmosphere", *J. Phys. Chem. A* 104, 5238 (2000).
- Y. Paz, S. Trakhtenberg, R. Naaman, "New Evidences for Surface Non Specific Catalysis- The Reaction Between Organized Organic Thin Films and O(3P)", *J. Am. Chem. Soc.* 116, 10344 (1994).