

NAME: Amy V. Walker

EDUCATION:

BA(Hons), Natural Sciences (Experimental and Theoretical Physics), 1995, University of Cambridge

PhD, Chemistry, 1998, University of Cambridge

ACADEMIC EXPERIENCE:

The University of Texas at Dallas	Professor	2015–present
The University of Texas at Dallas	Associate Professor	2009–2015
Washington University in St. Louis	Assistant Professor	2002-2009
Pennsylvania State University	Postdoctoral Scholar	2000-2002
University of Pittsburgh	Postdoctoral Associate	1998-2000

SCIENTIFIC AND PROFESSIONAL SOCIETIES OF WHICH A MEMBER:

American Chemical Society, American Vacuum Society, American Association for the Advancement of Science

HONORS & AWARDS:

Fellow, AVS, 2015

ACS PROGRESS/Dreyfus Lectureship, American Chemical Society and the Camille and Henry Dreyfus Foundation Special Grant Program, 2008

Dupont Young Professor Grant, 2006-2009

Ralph E. Powe Junior Faculty Enhancement Award, Oak Ridge Associated Universities, 2003

Research Studentship, Shell Research and Technology Centre, Amsterdam, The Netherlands, 1995-1998

Nuffield Foundation Undergraduate Research Bursary, 1994

INSTITUTIONAL AND PROFESSIONAL SERVICE IN THE LAST 5 YEARS:

Societies: Chair of Trustees, AVS, 2018; Trustee, AVS, 2016-2018; Director, AVS, 2013-2014; Chair, AVS Applied Surface Science Division Executive Committee, 2012 (Member-at-Large 2009-2011); Member, AVS National Membership Committee, 2012-present; Member, AVS Governance Committee - Chair (2015-2016) and member (2015-present) of Sub-Committee on Strategic Planning; Chair, AVS Texas Chapter, 2011-2015; Member SIMS International Committee, Secretary 2012-2017 (Member 2007-2017).

ISO: Member, Study Group on Nanomaterials Characterization, ISO Committee TC201.

Reviewer for several NSF programs including SBIR/STTR, Petroleum Research Foundation, NIH, Department of Energy (Basic Energy Sciences), and ~25 journals including Journal of Applied Physics, Journal of the American Chemical Society, Langmuir, and ACS Nano.

Conferences: Includes Program Chair, SIMS USA 2018, to be held in Richland, WA, June 19th, 2018; Program Chair, AVS 64th International Symposium, Tampa, FL, October 29th – November 3rd, 2017; Co-organizer, Symposium on “Deposition & Etching of Nanostructures,” 253rd ACS National Meeting & Exposition San Francisco, CA, April 2nd – 6th, 2017; Vice Program Chair, AVS 63rd International Symposium, Nashville, TN, November 6th – 11th, 2016; Program Chair, Conservation Science of Heritage Materials Focus Topic, AVS 61st International Symposium, Baltimore, MD, November 2014; Co-Organizer, Symposium on “Molecular Processes for Selective Deposition, Modification, Placement and Assembly of Nanostructures” 247th ACS National Meeting & Exposition, Dallas, TX March 16th-20th, 2014; Program Chair,

Applied Surface Science Division, AVS 60th International Symposium, Long Beach, CA, October, 2013.

University of Texas at Dallas

Extra-Departmental:

1. Member, Graduate Student Scholarship Committee, Erik Jonsson School (2010-2014).
2. Faculty Advisor, McDermott Scholars Program (2012-2013).
3. Director Materials and Surface Characterization Facility (2012-present).
4. Member, 4 *Ad Hoc* Committees for Mid Probationary Review
5. Member, *Ad Hoc* Committee for Granting of Tenure and Promotion to Rank of Associate Professor (2015)
6. Member, Search Committee for Endowed Professorship in Art Conservation (2014-2015)
9. Co-Chair, University Safety and Security Council (SSC) (2016 – present)
10. Member, University Library Committee (2016 – present)
11. Member, Search Committee for Dean of the Erik Jonsson School of Engineering & Computing Science (2017)

Department of Materials Science and Engineering:

1. Director of REU Program in REU Program in Surface Engineering for Sensing, Energy and Nanoelectronics (2012-present).
2. Graduate Admissions Committee. Chair (2009-2014); Member (2014-2016)
3. Recruiting Committee. (2009-2016)
4. Graduate PhD Qualifying Examination Committee (2009-2012; 2017 - 2018); Chair Spring 2018
5. Curriculum Committee, Chair (2016 – 2017), Member (2016 – present)
6. Undergraduate Curriculum Committee, Chair (2011-2016; 2017 – present), Member (2016 – 2017)
7. Colloquium Committee, Member (2009-2014), Chair (2010-2011)
8. Member of 16 PhD Dissertation Committees and 3 MS Dissertation Committees.

PRINCIPAL PUBLICATIONS IN THE LAST FIVE YEARS (out of 91 total, 2013-2017: 30):

1. K.R. Johnson, P. Arevalo Rodriguez, C.R. Brewer, J.A. Brannaka, Z. Shi, J. Yang, B. Salazar, L. McElwee-White, A.V. Walker, "Photochemical CVD of Ru on Functionalized Self-Assembled Monolayers from Organometallic Precursors," *J. Chem. Phys.*, **146** (2017) art. no. 052816 (on line 12/19/16).
2. A.A. Ellsworth, C.N. Young, W.F. Stickle, A.V. Walker, "New Horizons in Sputter Depth Profiling Inorganics with Giant Gas Cluster Sources," *Surf. Interface Anal.*, **49** (2017) 991-999.
3. A.A. Ellsworth, A.V. Walker, "From Nanowires to Nanopores: A Versatile Method to Electrolessly Deposit Nanostructures on Organic Substrates," *Langmuir*, **32** (2016) 2668–2674
4. Z. Shi, A.V. Walker, "Nanorods, Nanorockets, and Nanoflowers: Controlling the Morphology of ZnO Using Chemical Bath Deposition," *Thin Solid Films*, **606** (2016) 106-112.
5. L.D. Gelb, L. Bakhtiari and Amy V. Walker, "Statistically Rigorous Analysis of Imaging SIMS Data in the Presence of Detector Saturation," *Surf. Interface Anal* **47** (2015) 889-895.
6. Z. Shi, A.V. Walker, "Room Temperature Atomic Layer-Like Deposition of ZnO on Functionalized Self-Assembled Monolayers," *J. Phys. Chem. C* **119** (2015) 1091–1100.
7. Z. Shi, A.V. Walker, "Chemical Bath Deposition of ZnO: Effect of Substrate Chemistry on Deposit Morphology and Adherence," *Langmuir*, **31** (2015) 1421–1428.
8. L.D. Gelb, T.M. Milillo, A.V. Walker, "On Including Nonlinearity in Multivariate Analysis of Imaging SIMS Data," *Surf. Interface Anal.*, **46(S1)** (2014) 221-224.

9. J.J. Dertinger, A.V. Walker, "Ionic Liquid Matrices for Improved Detection of Proteins and Polymers in Time-of-Flight Secondary Ion Mass Spectrometry," *Surf. Interface Anal.* **46(S1)** (2014) 15-17.
10. A.V. Walker, "Toward a New World of Molecular Devices: Making Metallic Contacts to Molecules", *J. Vac. Sci. Technol. A* **31**(2013) art. no. 050816.

PROFESSIONAL DEVELOPMENT ACTIVITIES IN THE LAST 5 YEARS (2013-2017):

Invited talks at international and national conferences: 17

Invited seminars and colloquia at universities, national laboratories and companies: 11

Contributed presentations at international and national conferences: 44

Moderator/Chair of 5 sessions at international and national conferences.

Organizer of 11 programs at international and national conferences.

Program Chair of AVS 64th International Symposium and Vice Program Chair AVS 63rd International Symposium

Program Chair of SIMS USA 2018

Member, Study Group on Nanomaterials Characterization, ISO Committee TC201.