CURRICULUM VITAE

H. MARK PERKS

EDUCATION

Ph.D.	1980	The Johns Hopkins University, Chemistry
M.S.	1977	The Johns Hopkins University, Chemistry
B.S.	1970	Bucknell University, Chemistry

Experience in Higher Education

2025–present	University of Maryland Baltimore County, Teaching Professor, Chemistry
2022–2025	University of Maryland Baltimore County, Principal Lecturer, Chemistry
2005–2022	University of Maryland Baltimore County, Senior Lecturer, Chemistry
1995–2005	University of Maryland Baltimore County, Instructor, Chemistry
2001–2003	The Johns Hopkins University, Summer Sessions Faculty Associate, Chemistry
1991–1995	University of Maryland Baltimore County, Visiting Assistant Professor, Chemistry
1991–1993	The Johns Hopkins University, School of Continuing Studies Faculty Associate, Chemistry
1991–1993	The Johns Hopkins University, Visiting Assistant Professor, Chemistry
1991–1994	Loyola Collge, Summer Sessions Instructor, Chemistry
1986–1987	Loyola Collge, Visiting Assistant Professor, Chemistry

Experience in K–12 Education

1974–1975	Moorestown Friends School, NJ, Teacher, Chemistry
1970–1972	Gbewaa Secondary School, Ghana, Teacher, Chemistry

Experience in Other than Higher Education

1990–1991	Aerosol Monitoring & Analysis Companies, President and General Manager
1988–1991	Aerosol Monitoring & Analysis Companies, Director, Environmental Services
1987–1988	Penniman & Browne, Inc., Chief, Chemical Laboratory
1980–1986	Becton Dickinson and Company, Senior Scientist and Project Manager

Honors Received

2012	CNMS Carl Weber Excellence in Science and Mathematics Teaching Award
2011	Distinguised Faculty Member of UMBC chapter of National Society of Collegiate Scholars (keynote address at induction ceremony)
2004	National Society of Collegiate Scholars Faculty of the Year – student nomination
2002	Honorary Faculty Member of UMBC chapter of Golden Key Honor Society
1993	The Johns Hopkins University Student Council Award for Excellence in Teaching

Ph.D. Student

Bruce Lippy, 2003, committee member

Master's Student

Elizabeth McLaughlin, 1987, committee member, University of Maryland at Baltimore

Undergraduate Students

Joon Park	Undergraduate Research 399	2007–2008	Mentor
Greg Downs	Undergraduate Research 399	2006–2007	Mentor
Miriam Cohen	Interdisciplinary Studies Thesis	1999	advisor
Opeolu Odeoye	Undergraduate Research 399	1997	Mentor
Farshad Pezeshki	Undergraduate Research 399	1996	Mentor
Lukas Jantacs	Undergraduate Research 399	1996	Mentor
Eric Cummings	Undergraduate Research 399	1996	Mentor

PUBLICATIONS

Peer-Reviewed Works, Articles

(Leupen, S. M.), Williams, T., Hodges, L. C., Ott, L. E., Anderson, E. C., Cui, L., Nanes, K. M., Perks, H. M., Wagner, C.W. "Disciplinary Differences in STEM Faculty and Student Use of Learning Objectives: Implications for Teaching and Learning," *Journal of College Science Teaching*, **53**, 462 (2023)

(L. Hodges), L. Beall, E. Anderson, T. Carpenter, L. Cui, E. Feeser, T. Gierasch, H.M. Perks, K. Nanes, C. Wagner. "Effect of Exam Wrappers on Student Achievement in Multiple Large STEM Courses," *Journal of College Science Teaching*, **50**, 69 (2020)

Donadio, S., Perks, H.M., Tsuchiya, K., and (White, E.H.), "Alkylation of Amide Linkages and Cleavage of C-Chain in the Enzyme-Activated-Substrate Inhibition of Chymotrypsin with N-Nitrosamides," *Biochemistry*, **24**, 2447 (1985)

(White, E.H.), Perks, H.M., and Roswell, D.F., "The Labeling of Amide Linkages in Active Site Mapping: Carbonium Ion and Extended Photoaffinity Labeling Approaches," *J. Am. Chem. Soc.*, **100**, 7421 (1978)

(White, E.H.), Jelinski, L.W., Perks, H.M., Burrows, E.P., and Roswell, D.F., "Preferential Inhibition of Chymotrypsin by the D Form of an Amino Acid Derivative, N'-Isobutyryl-N-nitrosophenylalaninamide," *J. Am. Chem. Soc.*, **99** (1977)

Non-Peer-Reviewed Works, Chapters in Books

Perks, H.M., (Liebman, J.F.) "Aurocarbons: Binary gold carbides, binary carbon aurides and their derivatives" *The Chemistry of Organogold Compounds* Z. Rappoport, J. F. Liebman and I. Marek Ed., (2014).

(Hopf, H.), Liebman, J.F., Perks, H.M.,"Cubanes, fenestranes, ladderanes, prismanes, staffanes and other oligocyclobutanoids" *The Chemistry of Cyclobutanes* Z. Rappoport, J.F. Liebman, Ed., Chichester, (2005).

Perks, H. M., (Liebman, J. F.), "Paradigms and Paradoxes: Accidental Degeneracy II: Suppose the 3p and 3d Orbitals Were Closer in Energy. How Would Biochemistry Be Different?" *Structural Chemistry*, **14**, 421-422 (2003)

Perks, H. M., (Liebman, J. F.), "Paradigms and Paradoxes: Accidental Degeneracy I: Suppose the 2s and 2p Orbitals Were Closer in Energy. How Would Organic Chemistry Be Different?" *Structural Chemistry*, **14**, 417-419 (2003)

Preparing for Your ACS Examination in Organic Chemistry–The Official Guide, (M.W. Logue), J.G. McMillan, H.M. Perks, R. Wickholm, Committee, American Chemical Society Division of Chemical Education, Examinations Institute, Clemson, SC, 33-42, 43-68, 91-102 (2002)

Perks, H. M., (Liebman, J. F.), "Paradigms and Paradoxes: Common and Maximum Accessible Oxidation States of the Elements," *Structural Chemistry*, **12**, 197 (2001)

Perks, H. M., (Liebman, J. F.), "Paradigms and Paradoxes: Electronegativities and Bond Energies—Living Legacies of Linus and Lee," *Structural Chemistry*, **11**, 375 (2000)

Perks, H. M., (Liebman, J. F.), "Paradigms and Paradoxes: Estimation of the Enthalpies of Formation of Some Common, Solid-Phase Compounds of Considerable Theoretical Importance," *Structural Chemistry*, **11**, 313 (2000)

Perks, H. M., (Liebman, J. F.), "Paradigms and Paradoxes: Aspects of the Energetics of Carboxylic Acids and Their Anhydrides," *Structural Chemistry*, **11**, 265 (2000)

(Liebman, J.F.), Perks, H.M., "Thermochemistry of Enamines," *The Chemistry of the Enamines* Z. Rappoport, Ed., Wiley, Chichester, 255-277 (1994).

PATENTS

"A Method for the Detection of Biologically Active Agents," (Ahnell, J.E.), Perks, H.M., Sussman, M.L., Tice, G., U.S. Patent No. 4,971,900, 20 Nov. 1990

"Infrared ID Analysis," Perks, H.M., (Ahnell, J.E.), McCarthy, L.R., Can. Patent No. 1,220,051, 7 Apr. 1987

"Lectin-Latex Agglutination Assay," (McCarthy, L.R.), Perks, H.M., U.S. Patent No. 4,659,658, 21 Apr. 1987

PRESENTATIONS/POSTERS

T. Gierasch, (M. Perks), "Using Learning Assistants in Redesign of First-Semester Organic Chemistry," Mid-Atlantic Learning Assistant Workshop. University of Maryland, College Park, February 22-24, 2014

"Discovery Learning in a Large Introductory Chemistry Courses at UMBC," (H. Mark Perks), William F. LaCourse, Tara S. Carpenter, Diana Hamilton, 8th Science in Savannah Symposium, Savannah, Georgia, 29 February 2008

(Frechtling, J.), Perks, M., LaCourse, W. "Changing undergraduate chemistry instruction through discovery learning: A look at student performance and attitudes," Presentation at the 2008 MSP Learning Network Conference, Washington, DC. January 2008

"Encouraging Student Inquiry and Cooperative Learning Using A USENET Course Newsgroup," H. Mark Perks, Issues in Gateway Chemistry Courses Conference, Baltimore, Maryland, 8 November 1996

Chemical demonstrations for "Holiday Lectures on Science," H. Mark Perks, broadcast presentation at Howard Hughes Medical Institute by Tom Cech, 1995

(H. Mark Perks), Phillip Kronstein, J.F. Liebman, "Atoms to Molecules to Atoms to . . . ," Middle Atlantic Regional Meeting of the American Chemical Society, 26 May 1994.

PROJECT PROPOSALS AWARDED

2012-2018	MHEC "Improving Teacher Quality (ITQ) Teacher Quality in Chemistry (TQC) Program at UMBC," team member (PI - Bill LaCourse)
2012-2014	Carnegie Foundation "351 Course Redesign," team member (PI - Tiffany Gierasch)
2011	UMBC Curriculum Innovation Grant "Discovery Learning Supplement to Organic] Chemistry Laboratory"
2006-2007	Provost's Office "VIP K-16 CNMS Graduate Teaching Assistant Training," team member (PI - Phil Sokolove)
2005	Provost's Office "A New Education Model for Chem 101: Discovery Learning for Introductory Classes," team member (PI - Bill LaCourse)
2005–2006	MHEC VIP K–16 Partnership, "Partnership Between Montgomery County High School Teachers and UMBC's Department of Chemistry to Transform Chem 101 Recitation Sections at UMBC"

SERVICE

To The Department

2015	DP&T Committee, Senior Lecturer	chair
2013	DP&T Committee, Adjunct II	chair
2012	Department Chair Search Committee	member
2005	Instructor Search Committee	chair
2003	Instructor Search Committee	member
2001	Instructor Search Committee	member
1998–2008	Safety Committee	member
1998–present	Undergraduate Recruiting Committee	member/Chair
1996–present	Articulation	member/Chair
1996–present	Biochemistry Major	advisor

To UMBC

2016-2017	Hrabowski Innovation Award Committee	member
2012-2014	Hrabowski Innovation Award Committee	member
2011–2012	General Education Program Committee	member
2007	UMBC-BCPS STEM P–16	faculty affiliate
2007	Health Professions Advising Coordinator Search Committee	member
2006–2008	CNMS Dean's TA Training Taskforce	member
2006–present	Writing Board	member
2006–2015	International Teaching Assistant Evaluations	interviewer
2005–2007	UMBC P–20 Coordinating Council	alternate to chair
2005–2007	Faculty Affairs Committee	member
2005	New Student Book Experience Selection Committee	member
2002–2004	Environmental Safety and Health Committee	member
1997–present	Health Professions Evaluation Committee	member
1997–2015	Meyerhoff Scholarship Weekend	interviewer

To The University System of Maryland

2003	Faculty Disciplinary Committee Associate of Arts in Teaching degree	member

To The Profession

2012	Education session Mid-Atlantic Regional Meeting, ACS	chair
1996–2004	National Council on Undergraduate Research	local representative

To The Community

2012-2018	MHEC Improving Teacher Quality (ITQ) Teacher Quality in Chemistry (TQC) Program	instructor
2010-2016	"Nifty-Fifty" USA Science & Engineering Festival, 2015, Baltimore Polytechnic Institute 2014, Archbishop Spalding High School 2012, Montgomery Blair High School 2010, Huntingtown High School	guest teacher
2010-2014	Baltimore County Science Fair	judge
2008–2009	"Chemistry Distilled" Academy for Elementary and Middle School Teachers Washington County Public Schools Math Science Partnership	higher ed partner
1995–2014	MCAT Review Course JHU School of Continuing Studies	instructor

STATEMENT OF CERTIFICATION

I, H. Mark Perks, hereby certify that the information on the above *Curriculum Vitae* is correct and current as of December 2, 2025.

H. Mark Perks, Ph.D.
Senior Lecturer