

BIOGRAPHICAL SKETCH

William F. Polik

A. Professional Preparation

Ph.D., Physical Chemistry, University of California at Berkeley, 1988
B.A., Valedictorian, Chemistry and Mathematics, Dartmouth College, 1982

B. Appointments

Edward and Elizabeth Hofma Professor of Chemistry, Hope College, 2001-present
Professor, Hope College, 2000-2001
Associate Professor, Hope College, 1994-2000
Assistant Professor, Hope College, 1988-1994
Fellow, San Diego Supercomputer Center, 2001-2002
Visiting Scientist, Massachusetts Institute of Technology, 1994-95
Principal Partner, DiscusWare, LLC, 1997-present; WebMO LLC, 2000-present
Consultant, Coherent Lasers, 1986-1988; Laser Photonics, 1991-1993; Systems Integration, 1992-1994
Graduate Student Instructor, University of California, Berkeley, 1982-1985
Research Associate, Institut für makromolekulare Chemie, Universität Freiburg, 1981
Teaching Assistant, Dartmouth College, 1979-1982

C. Publications (* indicates undergraduate student)

1. Charles D. Emery*, Kenneth S. Overway*, Rychard J. Bouwens*, and William F. Polik, "Dispersed Fluorescence Spectroscopy of Excited Rovibrational States in S_0 Formaldehyde", *Journal of Chemical Physics* **103**, 5279 (1995).
2. Rychard J. Bouwens*, Jon A. Hammerschmidt*, Tineke A. Stegink*, Martha M. Grzeskowiak*, Patrick M. Yorba*, and William F. Polik, "Pure Vibrational Spectroscopy of S_0 Formaldehyde by Dispersed Fluorescence", *Journal of Chemical Physics* **104**, 460 (1996).
3. Andrew K. Chen* and William F. Polik, "K-Rotational Relaxation of S_1 H_2CO ($\nu_4=1$, $J_{KaKc}=1_{01}$) via Dispersed Fluorescence Spectroscopy", *Journal of Physical Chemistry*, **100**, 10027 (1996).
4. Jeffrey A. Bartz, Tyson O. Friday*, Bryan R. Goodman*, Steven E. Kooi*, Richard G. Blair*, and William F. Polik, "Energy Disposal in the Photodissociation of $Co(CO)_3NO$ near 225 nm", *Journal of Physical Chemistry A* **102**, 10697 (1998).
5. Kevin W. Paulisse*, Tyson O. Friday*, Margaret L. Graske*, and William F. Polik, "Vibronic Spectroscopy and Lifetime of S_1 Acrolein", *Journal of Chemical Physics* **113**, 184 (2000).
6. Katie M. Horsman*, Todd P. Chassee*, and William F. Polik, "Dispersed Fluorescence Spectroscopy of S_0 Formyl Fluoride Vibrational States", *Journal of Physical Chemistry*, **104** 10070 (2000).
7. Karen E. Hahn*, Katie M. Horsman*, and William F. Polik, "Characterization of 3 Vibrational Levels in S_0 Formyl Fluoride using Dispersed Fluorescence Spectroscopy", *Journal of Molecular Spectroscopy* **210**, 98 (2001).
8. Jordan R. Schmidt* and William F. Polik, "WebMO User's Guide" (WebMO LLC: Holland MI) 104 pages, 2003.
9. Karen E. Hahn* and William F. Polik, "Factors Influencing Success in Physical Chemistry", *Journal of Chemical Education* **81**, 567 (2004).

10. Michael H. Cortez*, Nicole R. Brinkmann, William F. Polik, Peter R. Taylor, Yannick J. Bomble, and John F. Stanton, "High-Accuracy Harmonic Frequency Calculations of Polyatomic Molecules", *Journal of Chemical Theory and Computation* **3**, 1267 (2007).

D. Synergistic Activities

1. Development of WebMO software (www.webmo.net), which is a WWW interface to computational chemistry programs and has over 900 unique registrations, 2000-pres.
2. Committee for Professional Training, American Chemical Society, Chair 2006, Vice-Chair 2005, Guidelines Editor 2001-03, Member 2000-pres.
3. Beckman Scholar Executive Committee, Beckman Foundation, administers over \$1,000,000 of undergraduate research fellowships annually, Chairperson 2002-03, Member 2000-03.
4. Development of Discus discussion board software (www.discusware.com), which extends course discussion among students beyond the boundaries of the classroom and has over 7,000 unique registrations at educational institutions, 1997-pres.
5. Physical Chemistry Committee, ACS DivCHED Examinations Institute, developed 4 physical chemistry examinations, 1996-2001.

E. Collaborators & Other Affiliations

Collaborators last 4 years († indicates former student; * indicates current student)

Dr. Scott A. Reid, University of Marquette
Dr. John F. Stanton, University of Texas at Austin
Dr. Yannick J. Bomble, Scripps Research Institute
Dr. Jordan R. Schmidt†, post-doc at Yale University
Michael A. Cortez†, mathematics graduate school at Cornell University
Jennifer D. Herdman†, chemistry graduate school at George Washington University
Michael L. Poulton†, information technology business
James P. Lajiness†, chemistry graduate school at Scripps Research Institute
Brian D. Lajiness†, medical school
John L. Davisson*, medical school
Kristin K. Ellsworth*, Hope College student '08
Christopher D. Jordan*, Hope College student '09
Forrest S. Gordon*, Hope College student '09

Advisors

Dr. C. Bradley Moore, Northwestern University, 1982-1988
Dr. Robert W. Field, Massachusetts Institute of Technology, 1994-1995
Dr. Peter R. Taylor, University of Warwick, 2001-2002

Graduate Students and Postdoctoral Scholars

Dr. Nicole R. Brinkmann