

Curriculum Vitae of James A. Miller

Combustion Chemistry Department
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Education

- B.S. University of Cincinnati 1969
- M.Eng. Cornell University 1970
- Ph.D. Cornell University 1974 (January)

Professional Experience (post Ph.D.)

- Sandia National Laboratories*, Livermore, CA
Distinguished Member of the Technical Staff, 1989 to Present
Member of the Technical Staff, 1974–1989
- Stanford University*
Visiting Lecturer, winter quarter 1988
(created and taught graduate course “Selected Topics in Theoretical Chemical Kinetics”)

Publications

- Author of more than 120 scientific publications. See complete publication list for details.
- Editor of special issue of *Combustion Science and Technology* on “Modeling Laminar Flame Propagation in Premixed Gases”, December 1983 (also appears as book *Laminar Flame Propagation in Premixed Gases*, Gordon and Breach, 1984)
- Citations: one article with more than 1000 citations, total of 10 articles with 100 or more, citation rate ≈ 300 per year. (These numbers do not include CHEMKIN citations or citations of or by articles in *Proc. Combust. Inst.* prior to 2000); CHEMKIN was cited by more than 2000 papers between 1986 and 2004

Professional Service

- Editorial Advisory Board, *The Journal of Physical Chemistry*, 2005–2007
- Editorial Advisory Board, *Combustion and Flame*, 2005
- Associate Editor, *Combustion and Flame*, 2006 to Present
- Editorial Advisory Board, *Theoretical Chemistry Accounts*, 2005–2008
- Editorial Advisory Board, *International Journal of Chemical Kinetics*, 2001–2003.
- Interviewer for Hertz Foundation undergraduate scholarship competition, 1986–1992
- Chairman of colloquium on chemical kinetics for the Twenty-Seventh and Twenty-Eighth International Combustion Symposia (1998 and 2000)
- Symposium chairman for “Chemical Mechanisms Associated with Combustion”, American Chemical Society (Division of Fuel Chemistry) National Meeting, April 13–16, 1986, New York City
- Alumni interviewer for undergraduate admissions at Cornell University, 1998–2005

Honors and Awards

- 1985 O. W. Adams Award for Outstanding Achievement in Combustion Science (inaugural award)—Sandia National Laboratories
- Sandia Award for Excellence 1990 and 1994
- Sandia Royalty Award annually 1996 to Present (co-creator of CHEMKIN)
- Silver Medal, The Combustion Institute 1990
- Bernard Lewis Gold Medal, The Combustion Institute 2006
- Plenary lecturer at the Twenty-Sixth International Combustion Symposium 1996
- Associated Western Universities Distinguished Lecturer, 1992–1993
- Fellow of the American Physical Society (Division of Chemical Physics), 2004
- Fellow of the American Association for the Advancement of Science, 2006
- Elected member, Tau Beta Pi, Sigma Xi, Sigma Gamma Tau
- Chosen by the Institute for Scientific Information for inclusion on <http://isihighlycited.com>, a web site containing biographical information and publication histories of the world's most cited scientists and engineers

Research Interests

- Combustion chemistry
- Theoretical chemical kinetics and dynamics
- Theory of flame, detonation, and explosion phenomena
- Mathematical modeling and applied mathematics
- Foundations of quantum and statistical mechanics and their application to chemical problems
- Chemical vapor deposition

Professional Affiliations

- American Physical Society
- American Chemical Society
- The Combustion Institute
- American Association for the Advancement of Science