CURRICULUM VITAE
DAVID L. OSBORN

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Employment Background and History:

2020-	Adjunct Full Professor, Department of Chemical Engineering, University of California, Davis
2020-2020	Acting Manager, Gas Phase Chemical Physics Department, Sandia National Laboratories
2013- 2026	Distinguished Member of Technical Staff, Combustion Research Facility
2004-2012	Principal Member of Technical Staff, Combustion Research Facility
1999-2004	Senior Member of Technical Staff, Combustion Research Facility

Academic Background:

1997-1999	National Research Council Post-doctoral Fellow, JILA & National Institute of Standards and Technology, Boulder, Colorado. Advisor: Stephen R. Leone
1991-1996	Ph.D., Physical Chemistry, University of California, Berkeley, California. Advisor: Daniel M. Neumark
1987-1991	B.S., Chemistry, Honors and General Honors, The University of Chicago, Chicago, Illinois. Advisor: Donald H. Levy

Biosketch:

Since 1999, Dr. Osborn has explored the mechanisms of gas phase chemical reactions at the Combustion Research Facility of Sandia National Laboratories in Livermore, California. His research program creates multiplexed methods that provide global views of a chemical reaction mechanism, with insights into kinetics, dynamics, spectroscopy, and molecular structure of reacting systems. He has applied these techniques to problems in combustion chemistry, earth's troposphere, planetary atmospheres, and heterogeneous catalysis with the goal of improving our fundamental understanding of chemical reactions and the predictive capability of chemical reaction models.

Professional Honors:

Fellow, American Physical Society, 2015
Lockheed Martin NOVA Award, 2013
David Shirley Award for Outstanding Science at the Advanced Light Source, 2012
JILA Visiting Fellowship, April – September, 2010.
O. W. Adams Award for Outstanding Achievement in Combustion Science, 2010.
National Research Council Postdoctoral Fellowship (NIST/JILA), 1997 - 1999.

National Defense Science and Engineering Graduate (NDSEG) Fellowship, 1991-1994.

Professional Service:

Executive Committee Member At-Large, PHYS Division, American Chemical Society, 2023-2025.
Senior Editor, Journal of Physical Chemistry, 2020 – present.
Board Standing Committee on the Petroleum Research Fund, American Chemical Society, 2019 – 2024.
Secretary/Treasurer, Division of Chemical Physics, American Physical Society, 2019 – 2021.
Editorial Advisory Board, Journal of Physical Chemistry and Journal of Physical Chemistry Letters, 2015 – 2018.
Fellow Selection Committee, Division of Chemical Physics, American Physical Society, 2016 – 2018
Executive Chair, 33rd International Symposium on Free Radicals, 2015.
Executive Chair, Pacific Conference on Spectroscopy and Dynamics, 2013 – 2017.
Member, Scientific Advisory Committee, Advanced Light Source, LBNL, 2010 – 2011.
Chair, Users' Executive Committee, Advanced Light Source, LBNL, 2010 – 2011.
Member, Users' Executive Committee, Advanced Light Source, LBNL, 2009 – 2012.
Member, Executive Committee of the Western Spectroscopy Association, 2003 – 2012.
Member, American Chemical Society.
Fellow, American Physical Society.

Publications:

177 "The Chemistry of Carbenes: New Insights from the Gas Phase," H. Reisler and D. L. Osborn, Annual Review of Physical Chemistry, 2026 https://doi.org/10.1146/annurev-physchem-082324-010007

176 "High-Resolution Time-Resolved PEPICO with Tunable Vacuum Ultraviolet Photoionization," D. Rösch, K. C. Woo, J. A. Echternach, B. Sztaray, A. Bodi, and D. L. Osborn, The Journal of Physical Chemistry A doi.org/10.1021/acs.jpca.6c00317

175 "Chemistry of Sugar Formation in the Gas Phase: Following the Activated Aldehyde," D. L. Osborn, C. Soulie, B. R. Samanta, H. Reisler, and J. Zador, Journal of the American Chemical Society, 147, 32468 (2025).

174 "Fluoroform (CHF_3) Production from CF_3CHO Photolysis and Implications for the Decomposition of Hydrofluoroolefins and Hydrochlorofluoroolefins in the Atmosphere," J. D. Thomson, J. S. Campbell, E. B. Edwards, C. Medcraft, K. Nauta, M. P. Perez-Pena, J. A. Fisher, D. L. Osborn, S. H. Kable, and C. S. Hansen, Journal of the American Chemical Society, 147, 33 (2024).

173 Correction to "OH roaming and beyond in the unimolecular decay of the methyl-ethyl-substituted Criegee intermediate: observations and predictions (vol 145, p. 19405, 2023)," T. L. Liu, S. N. Elliott, M. J. Zou, M. F. Vansco, C. A. Sojdak, C. R. Markus, R. Almeida, K. D. Au, L. Sheps, D. L. Osborn, F. A. F. Winiberg, C. J. Percival, C. A. Taatjes, R. L. Caravan, S. J. Klippenstein, and M. I. Lester, Journal of the American Chemical Society, 146, 18184 (2024).