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EDUCATION

University of Houston, Houston, TX
Atmospheric Sciences with specialization in Atmospheric Chemistry
Doctor of Philosophy, May 2013
Master of Science, August 2008

Baylor University, Waco, TX
Aviation Science
Bachelor of Science, August 2001

Texas State Technical College, Waco, TX
Aircraft Pilot Training
Associate of Applied Science, August 2001

EXPERIENCE

University of Houston, Houston, TX
Department of Earth and Atmospheric Sciences

<u>Research Associate Professor</u>	09/20 - Present
<u>Research Assistant Professor</u>	08/13 – 08/20
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Baylor University
Institute for Air Science

<u>Researcher</u>	09/01-05/06
<u>Student researcher</u>	06/98-08/01

Publications

1. Yoon, S., Kotsakis, A., Alvarez, S.L., Spychala, M.G., Klovenski, E., Walter, P., Morris, G., Corrales, E., Alan, Al., Diaz,455J.A., and **Flynn, J.H.**: Development and testing of a novel sulfur dioxide sonde, *Atmos. Meas. Tech.* ,15, 4364-4384,doi:10.5194/amt-15-4373-2022, 2022
2. Sujan Shrestha, Subin Yoon, **Matthew H. Erickson**, Fangzhou Guo, Manisha Mehra, Alexander A.T. Bui, Benjamin C. Schulze, *Alexander Kotsakis*, Conner Daube, Scott C. Herndon, Tara I. Yacovitch, *Sergio Alvarez*, **James H. Flynn**, Robert J. Griffin, George P. Cobb, Sascha Usenko, Rebecca J. Sheesley, Traffic, transport, and vegetation drive VOC concentrations in a major urban area in Texas, *Science of The Total Environment*, Volume 838, Part 2, 2022, 155861, <https://doi.org/10.1016/j.scitotenv.2022.155861>.
3. Zhou, S., Guo, F., Chao, C.Y., Yoon, S., Alvarez, S., Shrestha, S., **Flynn, J.**, Usenko, S., Sheesley, R., *Griffin, R., Marine submicron aerosols from the Gulf of Mexico: polluted and acidic with rapid production of sulfate and organosulfates, *Environ Sci Technol.* 2023 <https://doi.org/10.1021/acs.est.2c05469>
4. Jensen, M. P., **Flynn, J. H.**, Judd, L. M., Kollias, P., Kuang, C., Mcfarquhar, G., Nadkarni, R., Powers, H., and Sullivan, J.: A Succession of Cloud, Precipitation, Aerosol, and Air Quality Field Experiments in the Coastal Urban Environment, *B. Am. Meteorol. Soc.*, 103, 103–105, 2022.
5. Li, W., Wang, Y., **Flynn, J.**, Griffin, R. J., Guo, F., & Schnell, J. L. (2022). Spatial variation of surface O₃ responses to drought over the contiguous United States during summertime: Role of precursor emissions and ozone chemistry. *Journal of Geophysical Research: Atmospheres*, 127, e2021JD035607. <https://doi.org/10.1029/2021JD035607>
6. Bui, A. A. T., Wallace, H. W., Kavassalis, S., Alwe, H. D., **Flynn, J. H.**, Erickson, M. H., Alvarez, S., Millet, D. B., Steiner, A. L., and Griffin, R. J.: Transport-driven aerosol differences above and below the canopy of a mixed deciduous forest, *Atmos. Chem. Phys.*, 21, 17031–17050, <https://doi.org/10.5194/acp-21-17031-2021>, 2021.
7. Fangzhou Guo, Alexander A.T. Bui, Benjamin C. Schulze, Subin Yoon, Sujan Shrestha, Henry W. Wallace, Yuta Sakai, Blake W. Actkinson, *Matthew H. Erickson*, *Sergio Alvarez*, Rebecca Sheesley, Sascha Usenko, **James Flynn**, Robert J. Griffin, Urban core-downwind differences and relationships related to ozone production in a major urban area in Texas, *Atmospheric Environment*, Volume 262, 2021, 118624, <https://doi.org/10.1016/j.atmosenv.2021.118624>.
8. Katie Tuite, Jennie L. Thomas, Patrick R. Veres, James M. Roberts, Philip S. Stevens, Stephen M. Griffith, Sebastien Dusanter, **James H. Flynn**, Shaddy Ahmed, Louisa Emmons, Si-Wan Kim, Rebecca Washenfelder, Cora Young, Catalina Tsai, Olga Pikelnaya, Jochen Stutz (2021). Quantifying nitrous acid formation mechanisms using measured vertical profiles during the CalNex 2010 campaign and 1D column modeling. *Journal of Geophysical Research: Atmospheres*, 126, e2021JD034689. <https://doi.org/10.1029/2021JD034689>
9. R. F. Hansen, S. M. Griffith, S. Dusanter, J. B. Gilman, M. Graus, W. C. Kuster, P. R. Veres, J. A. de Gouw, C. Warneke, R. A. Washenfelder, C. J. Young, S. S. Brown, S. L. Alvarez, **J. H. Flynn**, N. E. Grossberg, B. Lefer, B. Rappenglueck, P. S. Stevens (2021).

- Measurements of total OH reactivity during CalNex-LA. *Journal of Geophysical Research: Atmospheres*, 126, e2020JD032988. <https://doi.org/10.1029/2020JD032988>
10. Sirmollo, C. L., Collins, D. R., McCormick, J. M., Milan, C. F., *Erickson, M. H.*, **Flynn, J. H.**, Sheesley, R. J., Usenko, S., Wallace, H. W., Bui, A. A. T., Griffin, R. J., Tezak, M., Kinahan, S. M., Santarpia, J. L., Captive Aerosol Growth and Evolution (CAGE) chamber system to investigate particle growth due to secondary aerosol formation, *Atmos. Meas. Tech.*, Vol. 14, 1867-8548, <https://doi.org/10.5194/amt-14-3351-2021>
 11. *Subin Yoon*, Stephanie M. Ortiz, Adelaide E. Clark, Tate E. Barrett, Sascha Usenko, Rachelle M. Duvall, Lea Hildebrandt Ruiz, Jeffrey K. Bean, Cameron B. Faxon, **James H. Flynn**, Barry L. Lefer, Yu Jun Leong, Robert J. Griffin, Rebecca J. Sheesley, Apportioned primary and secondary organic aerosol during pollution events of DISCOVER-AQ Houston, *Atmospheric Environment*, Volume 244, 2021, <https://doi.org/10.1016/j.atmosenv.2020.117954>.
 12. Sang-Keun Song, Yu-Na Choi, Yunsoo Choi, **James Flynn**, Bavand Sadeghi, Characteristics of aerosol chemical components and their impacts on direct radiative forcing at urban and suburban locations in Southeast Texas, *Atmospheric Environment*, Volume 246, 2021, <https://doi.org/10.1016/j.atmosenv.2020.118151>.
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 14. Youhua Tang, Daniel Q. Tong, Kai Yang, Pius Lee, Barry Baker, Alice Crawford, Winston Luke, Ariel Stein, Patrick C. Campbell, Allison Ring, **James Flynn**, Yuxuan Wang, Jeff McQueen, Li Pan, Jianping Huang, Ivanka Stajner, Air quality impacts of the 2018 Mt. Kilauea Volcano eruption in Hawaii: A regional chemical transport model study with satellite-constrained emissions, *Atmospheric Environment*, Volume 237, 2020, <https://doi.org/10.1016/j.atmosenv.2020.117648>.
 15. Bavand Sadeghi, Yunsoo Choi, *Subin Yoon*, **James Flynn**, *Alexander Kotsakis*, Sojin Lee, The characterization of fine particulate matter downwind of Houston: Using integrated factor analysis to identify anthropogenic and natural sources, *Environmental Pollution*, Volume 262, 2020, <https://doi.org/10.1016/j.envpol.2020.114345>.
 16. Slade, Jonathan H., Andrew P. Ault, Alexander T. Bui, Jenna C. Ditto, Ziying Lei, Amy L. Bondy, Nicole E. Olson, Ryan D. Cook, Sarah J. Desrochers, Rebecca M. Harvey, *Matthew H. Erickson*, Henry W. Wallace, *Sergio L. Alvarez*, **James H. Flynn**, Brandon E. Boor, Giuseppe A. Petrucci, Drew R. Gentner, Robert J. Griffin, and Paul B. Shepson, Bouncer Particles at Night: Biogenic Secondary Organic Aerosol Chemistry and Sulfate Drive Diel Variations in the Aerosol Phase in a Mixed Forest, *Environmental Science & Technology*, 2019 53 (9), 4977-4987, DOI: 10.1021/acs.est.8b07319
 17. *Kotsakis, A.*, Y. Choi, A.H. Souri, W. Jeon, and **J. Flynn**, 2019: Characterization of Regional Wind Patterns Using Self-Organizing Maps: Impact on Dallas–Fort Worth

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Synergistic Activities

- Outreach to K-12 – Visits to local public schools and annual Sam Houston Area Council Scout Fair to demonstrate mobile laboratory and equipment, launch radiosondes, and discuss careers in STEM fields with students, Scouts, and their families.
- Pedagogy – Provide field research opportunities for undergraduate and graduate students with modeling as a primary emphasis, and vice-versa, to ensure students develop an understanding of the utility and limits of models and field data.
- Advisory board – Member of the National Academy of Science’s Standing Committee on Environmental Science and Assessment for Ocean Energy Management (aka Committee on Offshore Science and Assessment)
- Support of professional organizations – Member of American Meteorological Society, American Chemical Society, and American Geophysical Union