Dr. Brandon Rotavera is an Assistant Professor at the University of Georgia, with appointments in both the Department of Chemistry and the School of Environmental, Civil, Agricultural, and Mechanical Engineering in the College of Engineering. Dr. Rotavera is also a Distinguished Fellow of the Student Veterans Resource Center at the University of Georgia, which consistently ranks in the Top 5 of Tier 1 Research Universities for supporting student veterans by providing wide-ranging programs, advocacy, and professional development including opportunities to conduct cutting-edge research.

Prior to arriving at the University of Georgia in 2016, Dr. Rotavera held a Postdoctoral Appointee position with Dr. Craig A. Taatjes in the Chemistry Department at the Combustion Research Facility of Sandia National Laboratories after completing a Ph.D. in Interdisciplinary Engineering from Texas A&M University with Prof. Eric L. Petersen in 2012, focusing on Physical Chemistry and Mechanical Engineering, and was a visiting Research Scholar at the French National Center for Scientific Research (CNRS) in Orléans, France working on jet-stirred reactor experiments with Dr. Philippe Dagaut.

At the University of Georgia, a major focus of the Rotavera Group ([rotavera.uga.edu](http://rotavera.uga.edu/)) is on the uncovering of gas-phase reaction mechanisms of biofuels and hydrocarbons under high-pressure combustion conditions using a combination of speciation measurements, chemical kinetics modeling, potential energy surface computations, and theoretical rate calculations, all of which contribute to developing new sub-mechanisms to increase the fidelity of combustion model predictions. Particular emphasis is placed on understanding connections between molecular structure and the balance of reactions governing ignition dynamics and pollutant formation in support of the broader effort by the combustion research community of producing scientific input for advancing clean, sustainable transportation energy technologies.

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