

# P4947: A Microwave and Computational Study of Acid Anhydrides

Nathan Love, Anna K. Huff, Michael A. Dvorak, Kenneth R. Leopold. University of Minnesota

- Measured microwave spectra for 6 carboxylic anhydrides with different R groups
- **Focus 1:** More electron donating R groups result in more non-planar anhydride functional groups
- **Focus 2:**  $V_3$  barriers of acetic anhydrides feature higher barriers than structurally similar ester methyl rotors
- **Focus 3:** Acetic Anhydride's double rotor spectra has been fit with XIAM and rotor related  $V_3$  irregularities have been investigated

