

## STARK EFFECT MEASUREMENTS ON THE $\text{H}_2\text{SO}_4\text{-H}_2\text{O}$ COMPLEX

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Sulfuric acid water mixtures provide important model systems for understanding rates of binary homogeneous nucleation. An understanding of these rates, in turn, is critical to fully elucidating the role of sulfuric acid aerosols in the atmosphere. The problem is made difficult, however, because of the strong tendency of sulfuric acid to form gas phase hydrates, and thus accurate information about  $\text{H}_2\text{SO}_4/\text{H}_2\text{O}$  clusters is of considerable interest. In this work, Stark effect measurements have been performed on three rotational transitions of the  $\text{H}_2\text{SO}_4\text{-H}_2\text{O}$  complex. The resulting dipole moment components will be discussed in terms of the known structure of the system.