

Abstract Submitted
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The Excited States of Nitric Acid: Recent Results¹ PAUL HELMINGER, University of South Alabama, DOUGLAS T. PETKIE, Wright State University, IVAN MEDVEDEV, FRANK C. DE LUCIA — Because nitric acid is an important molecular species in the ozone cycle in the upper atmosphere, it has been the subject of many studies in both the infrared and microwave regions of the spectrum. Microwave studies of the rotational spectrum of nitric acid in excited vibration states contribute both to a better understanding of this fundamental molecule and to the construction of accurate spectral maps for infrared remote sensing. We have recently completed work on the rotational spectrum of the interacting v_6+v_7 and v_8+v_9 states of nitric acid. The results of this work will be discussed. Our recent progress on the interacting v_3 and v_4 states will also be presented. Our microwave studies of the rotational spectrum of nitric acid now includes work on all of the excited states below 1250 cm^{-1} in energy as well as the v_2 state at 1700 cm^{-1} .

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Paul Helminger
University of South Alabama

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