

## HIGH RESOLUTION SPECTRUM OF THE 1,2-DIMETHOXYBENZENE/D<sub>2</sub>O COMPLEX <sup>a</sup>

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The rotationally resolved S<sub>1</sub> ← S<sub>0</sub> electronic spectrum of the 1,2-dimethoxybenzene/D<sub>2</sub>O complex has been analyzed. The D<sub>2</sub>O complex appears 126 cm<sup>-1</sup> to the blue of the bare molecule origin. The complex spectrum exhibits two subbands separated by 45 MHz. These spectra have an intensity ratio of 2 to 1, with the stronger band shifted to lower frequency. Possible motions of the water molecule that are suggested by these data will be discussed.

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