

A HIGH RESOLUTION ELECTRONIC SPECTRUM OF THE *PARA*-DIFLUOROBENZENE/WATER COMPLEX ^a

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The rotationally resolved $S_1 \leftarrow S_0$ fluorescence excitation spectrum of *para*-difluorobenzene (*p*DFB) / water complex has been observed. The water complex appears 169 cm^{-1} to the blue of the bare molecule origin and is split into two spectra separated by 0.12 cm^{-1} . These spectra are a result of the internal rotation of the water molecule in the complex. Analyses of the bands show that the water molecule lies in the *ab* plane of the *p*DFB molecule. The possible types of water motion will be discussed.

^awork supported by NSF