

INVESTIGATION OF VAN DER WAALS COMPLEXES IN A FREE EXPANSION OF C_2H_2/X (X=NOBLE GAS)
USING CW CAVITY RING-DOWN SPECTROSCOPY IN THE OVERTONE RANGE

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CW cavity ring down spectroscopy around $1.5 \mu\text{m}$ was used to probe a free supersonic expansion of mixed acetylene and noble gas (He, Ne, Ar and Kr). Pure C_2H_2 and mixed complexes are observed at sub-Doppler resolution around the 2CH acetylenic band. The effects of the different noble gases on the complexation are discussed. The updated or new spectral analysis of the spectra will be presented.