

## High-resolution overtone spectroscopy and dynamics of van der Waals complexes

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We have built a spectrometer based on complementary cw-cavity ring-down spectroscopy (CW-CRDS) and femto-FTIR cavity-enhanced absorption spectroscopy to investigate molecules under free supersonic jet cooling conditions. The set-up will be detailed. The DFB diode lasers used for CW-CRDS scan in the 2NH, 2CH and 2OH absorption ranges, mainly. This overtone spectral range was studied for a number of van der Waals complexes produced in the expansion. We shall focus on recent spectroscopic results concerning the ammonia monomer and ammonia–noble gas (NG) as well as water–NG complexes. The measurement of vibrational predissociation lifetimes will also be presented.