

SATURATION OF THE NO₂ $\nu_1 + \nu_3$ AND THE CH₄ ν_3 TRANSITIONS IN HELIUM NANODROPLETS

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We will report our findings of quantitative study of saturation of IR transition in Helium nanodroplets. The excitation source is an Argos cw PPLN OPO (Aculight) that is focused to a spot of 27 μm , producing a peak power of 87 kW/cm².

We have also used a "Perry Cell" multi pass cell to study of the effect of extending the interaction time. We will present results for a study of the 2905.566 cm⁻¹ R(0) transition of NO₂ and the 3029.07 cm⁻¹ R(0) transition of CH₄.