

SPECTROSCOPIC STUDY OF Rg-CH₄ (Rg = Ar, Kr, Ne) IN THE 7 μm REGION

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The absorption spectra of several rare gas–methane (Rg = Ar, Kr, Ne) van der Waals complexes associated with the ν_4 fundamental vibration of CH₄ were investigated in the 7 μm region. The complexes were produced in a pulsed slit supersonic jet and detected by a tunable diode laser spectrometer. The observed transitions are related to the $R(0)$, $P(1)$, $Q(1)$ and $R(1)$ transitions of the CH₄ molecule in the complex. Analysis of the data is in progress, and the results will be presented at the conference.