

TL04: High-resolution double resonance action spectroscopy in ion traps: vibrational and rotational fingerprints of CH_2NH_2^+

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- Measured the rovibrational and pure rotational spectra of CH_2NH_2^+
- Used laser induced inhibition of complex growth (LIICG) for infrared and predicted pure rotational transitions
- Measured weak rotational lines with rotation-vibration double resonance to amplify depletion of He tagged ions
- Measured 9 pure rotational transitions with ~ 5 kHz uncertainties
- Predicted transitions for mm-wave astronomy

