

(1 + 1) REMPI SPECTROSCOPY OF NO COMPLEXES WITH N₂, CO AND CH₄ VIA THE \tilde{A} STATE

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The spectra of the $\tilde{A} \leftarrow \tilde{X}$ transition of the NO·X molecular complexes, where X = N₂, CO and CH₄, have been recorded using one-color (1 + 1) REMPI spectroscopy. The spectra exhibit vibronic features, which are interpreted as hindered internal rotation and the underlying end-over-end rotational structure. Some insights into the structure of the spectra are gleaned from ab initio calculations.