LASER-INDUCED FLUORESCENCE SPECTRA OF THE LINEAR He-ICl(X $^1\Sigma^+$) COMPLEX

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Rotationally-resolved transitions from both the linear and T-shaped He-ICl(X) ground-state complexes have been recorded in the ICl B $^3\Pi_{0+}$-X $^1\Sigma^+$ 2-0 and 3-0 spectral regions using laser-induced fluorescence spectroscopy. Experiments performed with varying expansion conditions indicate that the lowest level within the ground state potential is localized in the linear He-ICl(X) orientation. Based on comparison with the theoretical predictions of Waterland et al.,[a] estimates of 21 and 17 cm^{-1} for the binding energies of the ground state, linear and T-shaped He-ICl(X) complexes, respectively, are established.

[a] R. L. Waterland, M. I. Lester, and N. Halberstadt, J. Chem. Phys. 92, 4261 (1990).