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 $^{3}\Pi_{0}\sim X^{1}\Sigma^{+}$ 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.