

## DETECTION OF HI-Ar BY (2+1) REMPI SPECTROSCOPY

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ArHI was detected by spectroscopic means for the first time. A vibrationally resolved (2+1) REMPI spectrum was recorded for the  $g^3\Sigma^-(0^+) - X^1\Sigma^+(0^+)$  transition. Analysis of this data yielded stretching vibrational constants for the g state, and estimates for the van der Waals bond strengths in the g and X states. The ground state is weakly bound, and ab initio calculations predict a linear HI-Ar geometry. The implications of these results for studies of the one-atom cage effect in RgHX complexes are considered.