

HIGH RESOLUTION LIF SPECTROSCOPY OF THE Ar.NO COMPLEX

TIMOTHY G. WRIGHT, JÈROME LOZEILLE, *School of Chemistry, Physics and Environmental Sciences, University of Sussex, Falmer, Brighton, BN1 9QJ, U. K.*; CHRISTOPHER C. CARTER and TERRY A. MILLER, *Laser Spectroscopy Facility, Department of Chemistry, The Ohio State University, Columbus, OH 43210.*

The $\tilde{A} \leftarrow \tilde{X}$ transition in ArNO has been recorded by high-resolution LIF spectroscopy. The work carries on a study of this complex by REMPI and ZEKE spectroscopy^a. Spectra have been recorded of the origin region, plus a region to higher energy, that has previously been attributed to stretch and stretch-bend combination bands. Progress in the analysis of the spectra will be reported; in particular, the previous deduction that the \tilde{A} state of ArNO is linear (on average) at the zero-point, but bent (on average) at higher energies will be examined.

^aA. M. Bush, J. M. Dyke, P. Mack, D. M. Smith and T. G. Wright, *J. Chem. Phys.* **108**,406 (1998)