

ANALYSIS OF THE $C^2\Pi - X^2\Sigma^+$ (0,0) BAND OF AIO.

JONATHAN P. TOWLE, *Smithsonian Astrophysical Observatory, 60 Garden Street MS 72, Cambridge, MA 02138, USA.*

In recent years the $C^2\Pi$ state of AIO has been the subject of some controversy. In 1994 Towle *et al.*^a published the results and analysis of a high resolution study of the $C^2\Pi - X^2\Sigma^+$ (0,0) band. Later in 1994 Towle *et al.*^b published a reanalysis of that data in combination more data from Singh and Sakena^c. The reanalysis yielded molecular constants for the $C^2\Pi$ state that were in agreement with those published in^a to within experimental accuracy. Ito *et al.*^d have reanalyzed the data from^c and published a set of molecular constants that are markedly different from those of Towle *et al.*^a. These differences will be discussed.

^aJ.P. Towle, A.M. James, O.L. Bourne and B. Simard, *J. Mol. Spectrosc.* **163** (1994) 300.

^bJ.P. Towle, A.M. James, O.L. Bourne, B. Simard, M. Singh and M.D. Sakena, *J. Mol. Spectrosc.* **167** (1994) 472.

^cM. Singh and M.D. Sakena, *Can. J. Phys.* **61** (1983) 1347.

^dN. Ito, H. Ito and K. Kuchitsu, *Chem. Phys. Lett.*, **276** (1997) 139.