

# Molecular Constants of the $A^1\Sigma_u^+$ and $B^1\Pi_u$ States of $Na_2$

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Z. Naturforsch. **61a**, 166 – 170 (2006); received November 21, 2005

The  $A^1\Sigma_u^+ - X^1\Sigma_g^+$  and  $B^1\Pi_u - X^1\Sigma_g^+$  systems of  $Na_2$  were excited by  $Ar^+$  and  $Kr^+$  lasers ranging from 4762 to 6471 Å. High-resolution Fourier transform spectroscopy has been used to analyze the observed spectrum. The study led to the calculation of the molecular constants of the upper  $A^1\Sigma_u^+$  and  $B^1\Pi_u$  states.

*Key words:* Molecular Spectroscopy; Spectroscopic Constants; Potential Curves.