MICROWAVE STUDIES OF BENZYL ALCOHOL

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At last year's Columbus Symposium, Nikolaev and Pratt[a] reported studies of a benzyl alcohol derivative indicating that the C-O bond does not lie in a plane orthogonal to the benzene ring. That report prompted this study on benzyl alcohol, itself. The microwave rotational spectrum of benzyl alcohol ($C_6H_5CH_2OH$) has been observed at rotational temperatures near 1 K on a pulsed-jet Fourier transform microwave spectrometer. Measurements have been taken in the range 6 to 15 GHz. A preliminary assignment of the spectrum is consistent with a nonorthogonal orientation of the C-O bond with respect to the benzene ring. Analysis of the spectrum is continuing which will determine the torsional orientation of the C-O bond as well as the conformation of the alcoholic hydrogen.

[a] A. E. Nikolaev and D. W. Pratt *56th Int. Symp. on Molec. Spectrosc.* Paper RF03, June 2001.