

FOURIER TRANSFORM MICROWAVE SPECTROSCOPY OF ARGON-IMIDAZOLE

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Guided by the spectroscopic constants obtained in a millimeter-wave study,^a the rotational spectrum of Ar-imidazole has been recorded in the 8 - 18 GHz region using a pulsed molecular beam, Fourier transform microwave spectrometer. The nuclear quadrupole hyperfine structure due to the quadrupolar ¹⁴N nuclei has been resolved for these low *J* transitions. The nuclear quadrupole coupling constants for each nitrogen nucleus in the complex will be compared with those in the imidazole monomer to derive molecular properties of the complex.

^aW. Caminati, S. Melandri, A. Millemaggi, and P. G. Favero, Chem. Phys. Lett. 294, 377 (1998).