ROTATIONAL SPECTROSCOPY OF 1,1-DIFLUOROPROP-2-YNYL RADICAL, F_2C-C≡C-H

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The rotational spectra of 1,1-difluoroprop-2-ynyl radical, F_2C-C≡C-H, a fluorine analog of the propargyl radical, have been recorded by Fourier transform microwave (FTMW) spectroscopy. N = 1 - 0 to 4 - 3, *a* type transitions for K_a = 0, 1, and 2, were measured between 6.5 and 26.5 GHz. The spectroscopic constants, including fine and hyperfine constants, were precisely determined. These constants are in good agreement with those predicted by a density functional theory *ab initio* calculation.